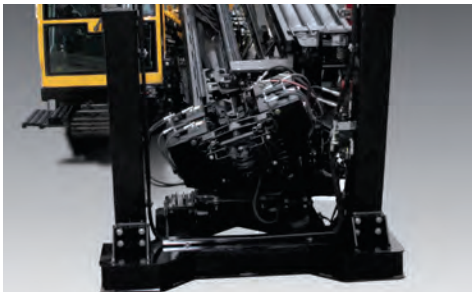


APPENDIX 1 CONSTRUCTION EQUIPMENT SPECIFICATIONS

D100x140 S3 NAVIGATOR® HORIZONTAL DIRECTIONAL DRILL



OPEN-TOP VISE. An angled, open-top vise allows for the passage of larger tooling. Because of the large opening, operators can also use it to break out tooling.



STACKABLE ROD BOXES. Stackable rod boxes are easy to use with a single pin and patent-pending auto lock.



DRILL EFFICIENTLY. The D100x140 S3 features the DigiTrak® Aurora™ full-color touchscreen display, delivering an engaging experience, which helps make a driller's day more productive.



OPTIONAL ONBOARD CRANE. Choose the optional onboard knuckleboom style crane to reduce the amount of support equipment needed onsite.



INCREASE YOUR RANGE. Unique four-bar linkage rack and additional pads allow operators to set up entry angles of 11° – 24° — increasing range attainable with tracks fully on ground.



FIRESTICK® DRILL ROD. Experience the difference that has made one-piece, forged Firestick drill rod the industry benchmark.

D100x140 S3 NAVIGATOR® HORIZONTAL DIRECTIONAL DRILL

GENERAL WEIGHTS AND DIMENSIONS

Min transport length (15' [4.6 m] rod option): 31.3' (9.5 m)

Min transport length (20' [6.1 m] rod option): 36.3' (11.1 m)

Min transport width: 100" (254 cm)

Min transport height: 11.3' (3.4 m)

Min weight (15' [4.6 m] rod option): 45,800 lb (20,774.5 kg)

Min weight (20' [6.1 m] rod option): 48,300 lb (21,908.5 kg)

ENGINE

Make/Model: Caterpillar

Fuel type: Ultra-low sulfur diesel

Max engine rpm: 2200 rpm

Gross horsepower: 275 hp (205 kW)

Cooling method: Liquid

Aspiration: Turbocharged

Emissions rating: Tier 4 Final (EU Stage IV)

OPERATIONAL

Thrust/Pullback: 100,000 lb (444.8 kN)

Max carriage speed: 205 fpm (62.5 m/min)

Max spindle torque (low at max engine rpm): 14,000 ft-lb (18,981.5 Nm)

Max spindle speed: 230 rpm

Max ground drive speed: 1.7 mph (2.7 km/h)

Noise level: 82 dB(A)

FLUID CAPACITIES

Fuel tank: 120 gal (454.2 L)

Hydraulic tank: 75 gal (283.9 L)

OPTIONAL DRILLING FLUID SYSTEM

Max flow: 230 gpm (870.6 L/min)

Max pressure: 900 psi (6.2 MPa)

OPTIONAL CRANE

Weight: 2400 lb (1088.6 kg)

Max lifting capacity at 10.7' (3.3 m): 5950 lb (2698.8 kg)

Max lifting capacity at 19.7' (6 m): 3750 lb (1701 kg)

Rotation: 360°

Max reach: 19.7' (6 m)

FEATURES

Drilling lights: Standard

Stakedown system: Optional

Remote ground drive control: Optional

Strike alert: Standard

Remote lockout: Standard

DRILL PIPE OPTION ONE

Type: Firestick drill rod

Length: 15' (4.6 m)

Joint diameter: 4.375" (11.1 cm)

Pipe diameter: 3.5" (8.9 cm)

Weight: 261 lb (118.4 kg)

Min bend radius: 197' (60 m)

Rod carrying capacity: 135' (41.1 m) with permanent rod box,
270' (82.3 m) with stacked box

DRILL PIPE OPTION TWO

Type: Firestick drill rod

Length: 20' (6.1 m)

Joint diameter: 4.4" (11.2 cm)

Pipe diameter: 3.5" (8.9 cm)

Weight: 374 lb (169.6 kg)

Min bend radius: 197' (60 m)

Rod carrying capacity: 180' (54.9 m) with permanent rod box,
360' (109.7 m) with stacked box

D220x300 S3 NAVIGATOR®

HORIZONTAL DIRECTIONAL DRILL



COMPACT FOOTPRINT. The compact footprint of the D220x300 S3 is suited for hard-to-access, narrow jobsites, while its self-contained design lessens the need for cumbersome support equipment.



WISE. The sliding vise moves 35.4" (89.9 cm) to help operators position the vise for maximum efficiency when reaming or pulling product.



COMMON CONTROLS. The D220x300 S3 shares common controls with other drills in the Navigator lineup, which can decrease operator training time and allow faster startups.



KNUCKLEBOOM CRANE. The optional knuckleboom crane mounted on either side of the base anchor maneuvers heavy tooling, reducing the need for support equipment.



POWER-TO-SIZE RATIO. The power-to-size ratio allows for twice the pullback and rotation of similarly sized drills for versatile applications.



ROD LOADER. A single row, sliding arm rod loader allows for the staging of five rods at one time, increasing boring efficiency by minimizing rod loading time.

D220x300 S3 NAVIGATOR® HORIZONTAL DIRECTIONAL DRILL

GENERAL DIMENSIONS AND WEIGHTS

Min transport length: 37' (11.3 m)

Min transport width: 100" (254 cm)

Min transport height: 11.3' (3.4 m)

Weight: 74,000 lb (33,565.84 kg)

ENGINE

Make/Model: CAT C13 ACERT Tier 4 Final

Fuel type: Ultra-low sulfur diesel

Max engine rpm: 2150 rpm

Gross horsepower: 415 hp (309 kW)

Cooling method: Liquid

Aspiration: Turbocharged and after-cooled

Emissions rating: Tier 4 Final (EU Stage IV)

OPERATIONAL

Thrust/Pullback: 242,100 lb (1076.9 kN)

Max carriage speed at max engine rpm: 120 fpm (36.6 m/min)

Max spindle torque (low at max engine rpm): 30,750 ft-lb (41,691.4 Nm)

Max spindle speed at max engine rpm: 164 rpm

Max ground drive speed at max engine rpm: 1.8 mph (2.9 km/h)

Noise level at operator's ear: 85 dB(A)

Drill rack angle: 10°-17° (17.6%-30.6%)

FLUID CAPACITIES

Fuel tank: 134 gal (507.2 L)

Hydraulic tank: 166 gal (628.4 L)

DRILLING FLUID SYSTEM

Make: Weatherford

Max flow: 345 gpm (1306 L/min)

Max pressure: 1200 psi (8.3 MPa) at 213 gpm (806.3 L/min)

OPTIONAL CRANE

Weight: 2600 lb (1179.3 kg)

Max reach: 26.3' (8 m)

Max lifting capacity: 5950 lb (2698.9 kg)

Max lifting capacity at max reach: 2530 lb (1147.6 kg)

Rotation: 400°

Wireless remote: Yes

FEATURES

Breakout system: Open-top, dual clamp, 10.2" (25.9 cm) diameter opening

Drilling lights: Yes

Flow indicator: Yes

Cab: Yes

Strike alert: Yes

Remote lockout: Yes

DRILL PIPE

Thread type: NC50 DS [4.5" (11.4 cm) IF double shoulder]

Length: 20' (6.1 m)

Rod diameter: 5" (12.7 cm) at 19.5 lb/ft (29 kg/m)

Wall thickness: .362" (9.2 mm)

Joint inside diameter: 3.5" (8.9 cm)

Joint outside diameter: 6.63" (16.8 cm)

Weight per joint: 540 lb (244.9 kg)

NOTES:

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316E

Hydraulic Excavator



Engine

Engine Model	Cat® C4.4 ACERT™	
Net Power – SAE J1349	85 kW	113 hp
Gross Power – SAE J1995	90 kW	120 hp

Drive

Maximum Travel Speed	5.2 km/h	3.2 mph
Maximum Drawbar Pull	156 kN	35,115 lbf

Weight

Operating Weight	17 600 kg	38,801 lb
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Introduction

Since its introduction in the 1990s, the 300 Series family of excavators has become the industry standard in general, quarry, and heavy construction applications. The all-new E Series and the 316E will continue that trend-setting standard.

The 316E meets today's U.S. EPA Tier 4 Interim emission standards. It is also built with several new fuel-saving and comfort-enabling features and benefits that will delight owners and operators.

If you are looking for more productivity and comfort less fuel consumption and emissions, and easier and more sensible serviceability, you will find it in the all-new 316E and the E Series family of excavators.



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Engine

Reduced emissions, economical and reliable performance

Cat® C4.4 ACERT™ Engine

The Cat C4.4 ACERT engine delivers the same level of performance using significantly less fuel than the previous series engine.

Emissions Solution

Equipped to meet U.S. EPA Tier 4 Interim emission standards, the 316E's C4.4 ACERT engine features an aftertreatment regeneration solution that ensures the machine works as normal with no operator intervention needed. The regeneration process automatically starts once the filtering system detects soot buildup – with no interruption to machine performance or the work process.

Biodiesel-Ready Fuel System

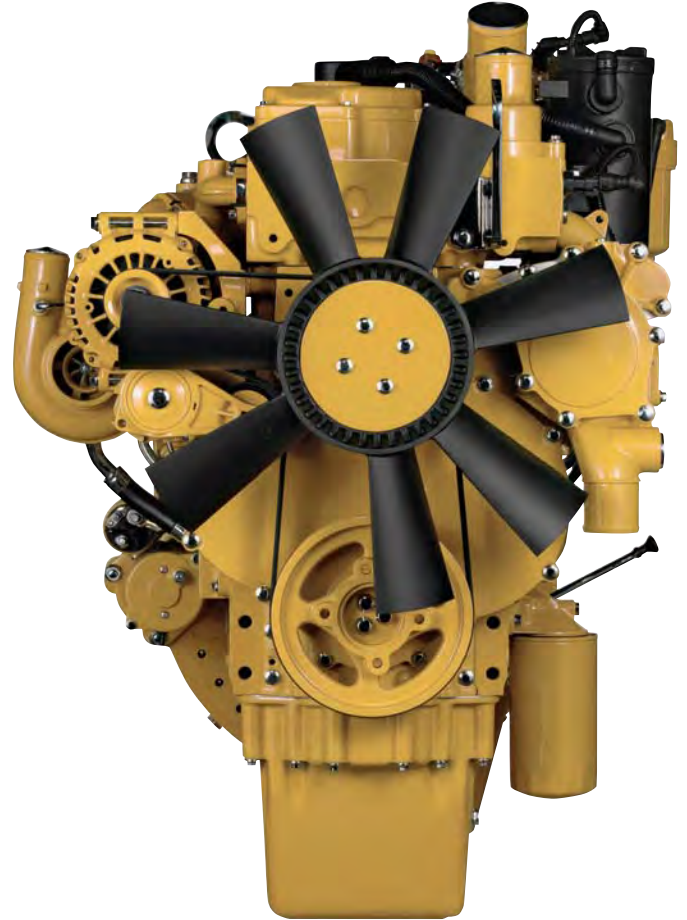
The C4.4 ACERT engine is equipped with an electronic-controlled high-pressure fuel system that includes an electric priming pump and three-layer fuel hoses to allow the use of biodiesel (meeting ASTM 6751 or EN 14214) up to B20 (biodiesel 20% mixture).

Cooling System

The cooling system features an air-to-air aftercooler and A/C condenser that tilt up and swing out of the way for easy servicing.

Speed and Power Control

The 316E features speed control to maximize performance while minimizing fuel consumption. Two different power modes are offered: high power mode when you need maximum production; economy mode when you need performance with the lowest fuel consumption. The operator can easily change between modes through the console switch panel to meet the needs for the job at hand – all to help manage and conserve fuel.



Operator Station

Comfort and convenience to keep people productive



Seats

The seat range includes air suspension, heated, and air cooled options. All seats include a reclining back, upper and lower seat slide adjustments, and height and tilt angle adjustments to meet operator needs for comfort and productivity.

Controls

The right and left joystick consoles can be adjusted to meet individual preferences, improving operator comfort and productivity during the course of a day. With the touch of a button, one-touch idle reduces engine speed to help save fuel; touch it again or move the joystick and the machine returns to normal operating level.

Monitor

The 316E is equipped with a 7" LCD (Liquid Crystal Display) monitor (1) that's 40% bigger than the previous model's with higher resolution for better visibility. In addition to an improved keypad and added functionality, it's programmable to provide information in a choice of 44 languages to support today's diverse workforce.

An "Engine Shutdown Setting" accessible through the monitor allows owners and operators to specify how long the machine should idle before shutting down the engine, which can save significant amounts of fuel.

The image of the rearview camera is displayed directly on the monitor, which will help keep you focused on the job at hand.

Power Supply

Two 12-volt power supply sockets are located near key storage areas for charging electronic devices such as an MP3 player and cell phone.

Storage

Storage spaces are located in the front, rear, and side consoles. A dedicated space near the auxiliary power supply holds MP3 players and cell phones. The drink holder accommodates large mugs with handles, and a shelf behind the seat stores large lunch or toolboxes.

Automatic Climate Control

The climate control system features five air outlets with positive filtered ventilation, which makes working in the heat and cold much more pleasant.



Hydraulics

Power to move more dirt, rock, and debris with speed and precision

Hydraulic Horsepower

Hydraulic horsepower is the actual machine power available to do work through implements and work tools. It's much more than just the engine power under the hood – it's a core strength that differentiates Cat machines from other brands.

Main Control Valve and Auxiliary Valves

The 316E uses a high-pressure system to tackle the toughest of work in short order. The machine features a highly efficient and simple main control valve to improve fuel consumption; it also allows for greater tool versatility.

Electric Boom Regeneration System

The 316E regenerates the flow of oil from the head end of the boom cylinder to the rod end of the boom cylinder during a boom down operation to save energy, which helps improve fuel efficiency. It is optimized for any dial speed setting being used by the operator, which results in less pressure loss for higher controllability, more productivity, and lower operating costs.



Structures & Undercarriage

Built to work in rugged environments

Frame

The upper frame includes reinforced mountings to support the Roll-Over Protective Structure (ROPS) cab; the lower frame is reinforced to increase component durability.

Undercarriage

Long undercarriage supports various work applications. The track rollers are a double solid-pin-type design to improve reliability compared to the single solid-pin-type design. A segmented two-piece guiding guard is now offered to help maintain track alignment and improve performance in multiple applications.

Counterweight

Built with an integrated rearview camera housing, the counterweight comes with integrated links to enable easy removal for maintenance or shipping.

Front Linkage

Made for high stress and long service life

Booms and Sticks

The 316E is offered with a reach boom and three stick configurations: R3.1 m (10'2"), R2.9 m (9'6"), and R2.6 m (8'6"). Also, a new thumb-ready stick with brackets to attach a Cat thumb on the machine is an available option. Each boom and stick is built with internal baffle plates for added durability, and each undergoes ultrasound inspection to ensure weld quality and reliability.

Reach configuration balances digging force and bucket capacity. It covers all applications this size of machine was designed to take on such as digging, loading, trenching, and working with hydraulic tools.

Large box-section structures with thick, multi-plate fabrications, castings, and forgings are used in high-stress areas such as the boom nose, boom foot, boom cylinder, and stick foot to improve durability. Also, the front linkage pins' inner bearing surfaces are welded with a self-lubricated bearing used to extend service intervals and increase uptime.



Work Tools

You can dig, hammer, rip, and cut with confidence.



You can extend the versatility and performance of your machine with the full lineup of Cat work tools. Each tool equips your machine to perform many different tasks found at a variety of job sites.

Couplers: Quick Tool Changes

Imagine the productivity you'll achieve with a quick coupler. Combine a robust coupler with a common work tool inventory that can be shared between same size machines and you'll get performance and flexibility on every job. The Cat Center-Lock™ pin grabber coupler features a patented locking system and highly visible lock. You can clearly see when the coupler is engaged or disengaged from the attachment.

Work Tools: Cut, Crush, Pulverize and Load

No matter your specialty, Caterpillar provides tools that are perfectly matched to get the most out of your Cat machine – quickly and efficiently. Field-installed hydraulic kits are uniquely designed to integrate any Cat work tool with your 316E.

Buckets: Dig, Move, Load

Cat buckets are designed to fill efficiently so you notice a fast, smooth cycle, which means high productivity each time you dig. Wear characteristics of general duty, heavy duty, and severe duty buckets give you solid performance in a wide variety of material abrasions. Ditch cleaning and other specialty buckets are available when needed.

GRAB, SORT, LOAD



Pro Series Hydraulic Thumbs



Stiff Link Thumbs



Contractors' Grapples



Trash Grapples

SWAP TOOLS



Center-Lock™ Pin Grabber Coupler

DIG & PACK



Ditch Cleaning and Tilt Buckets



General Duty Buckets



Heavy Duty Buckets



Severe Duty Buckets



Vibratory Plate Compactors

CUT, CRUSH, BREAK & RIP



Multi-Processors



Scrap & Demolition Shears



Secondary Pulverizers



Hydraulic Hammers



Rippers



Integrated Technologies

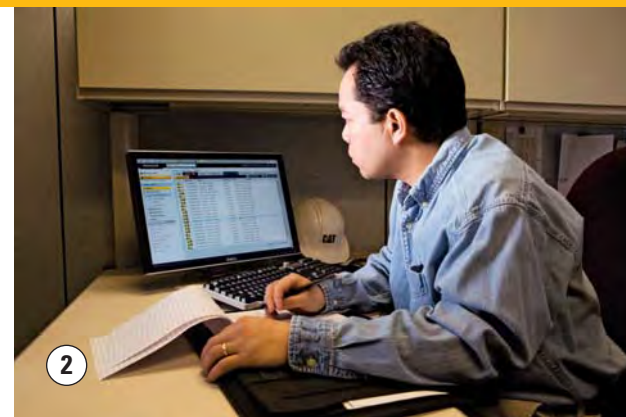
Solutions that make work easier and more efficient

Cat® Grade Control Depth and Slope

This optional system combines traditional machine control and guidance with standard factory-installed and calibrated components, making the system ready to go to work the moment it leaves the factory. The system utilizes internal front linkage sensors – well protected from the harsh working environment – to give operators real-time bucket tip position information through the cab monitor (1), which minimizes the need and cost for traditional grade checking and enhances job site safety. It also helps the operator complete jobs in fewer cycles, which means less fuel use. Cat dealers can upgrade the system to full three-dimensional control by adding proven Cat AccuGrade™ positioning technologies, including GPS and Universal Total Station (UTS).

Cat Product Link

This optional system is deeply integrated into the machine monitoring system (2 and 3) and is designed to help customers improve their overall fleet management effectiveness. Events and diagnostic codes as well as hours, fuel consumption, idle time, machine location, and other detailed information are transmitted to a secure web based application called VisionLink™, which uses powerful tools to communicate to users and dealers.



Serviceability

Fast, easy and safe access built in

Service Doors

Wide service doors (1) feature sturdier hinges and latches and a new screen design to help prevent debris entry; a one-piece hood (2) provides easier access to the engine and cooling compartments.

Compartments

The radiator (3), pump, and air cleaner compartments provide easy access to major components. The fresh air filter is located on the side of the cab to make it easy to reach and replace as needed.

Other Service Benefits

The water separator with water level sensor has a primary fuel filter element located in the pump compartment near ground level; the electric priming pump is mounted before the primary filter base and is easy to service compared to a traditional hand-priming pump.

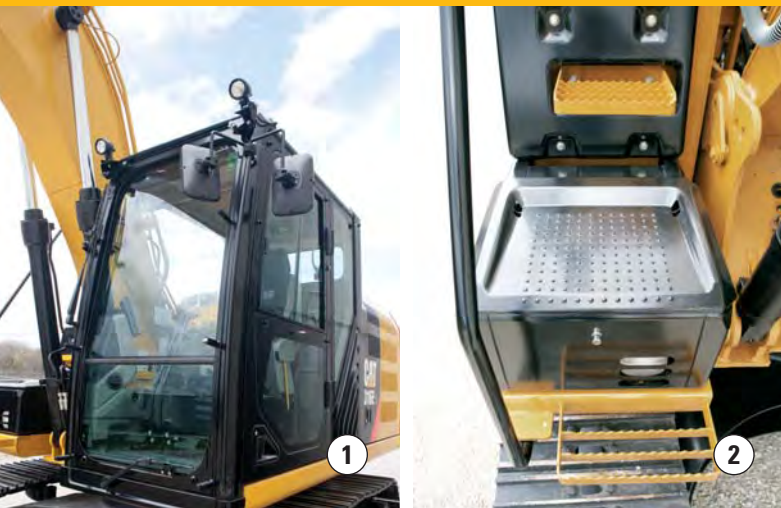
The fuel tank features a remote drain cock located in the pump compartment to make it easy to remove water and sediment during maintenance.

The engine oil check gauge is situated in front of the engine compartment for easy access, and a uniquely designed drain cock helps prevent spills.



Safety

Features to help protect people



ROPS Cab

The ROPS-certified cab (1) allows an Operator Protective Guard (OPG) to be bolted directly to it.

Sound Proofing

Improved sealing and cab roof lining lower noise levels inside the cab significantly during machine operation.

Anti-Skid Plates

The surface of the upper structure and the top of the storage box area (2) are covered with anti-skid plates to help prevent service personnel and operators from slipping during maintenance.

Steps, Hand and Guard Rails

Steps on the track frame and storage box along with extended hand (3) and guard rails to the upper deck enable operators to securely work on the machine.

Time Delay Lights

When the light switch is on, cab and boom lights will illuminate to enhance visibility after the engine start key has been turned off.

High Intensity Discharge (HID) Lights

Halogen lights are standard, but they can be upgraded to HID for greater visibility.

Windows

The 70/30 split configuration features an upper window equipped with handles on the top and both sides so the operator can slide it to store in the ceiling. The lower window is removable and can be stored on the left wall of the cab shell. The large skylight provides great overhead visibility, excellent natural lighting, and good ventilation. The skylight can be opened completely to become an emergency exit.

Wiper System

A lower wiper is available as an option to maximize visibility in poor weather conditions. The lower wiper motor is integrated to the upper frame so it doesn't obstruct the forward view.

Monitor Warning System

The machine features a buzzer in the monitor that tells customers when critical events like plugged filters or low hydraulic pressure need to be immediately addressed.

Rearview Camera

An optional rearview camera is housed in the counterweight (4). The image projects through the cab monitor to give the operator a clear view of what is behind the machine.



Complete Customer Care

Service you can count on

Product Support

Cat dealers utilize a worldwide parts network to maximize your machines' uptime. Plus they can help you save money with Cat remanufactured components.

Machine Selection

What are the job requirements and machine attachments? What production is needed? Your Cat dealer can provide recommendations to help you make the right machine choices.

Purchase

Consider financing options and day-to-day operating costs. Look at dealer services that can be included in the machine's cost to yield lower owning and operating costs over time.

Customer Support Agreements

Cat dealers offer a variety of customer support agreements and work with you to develop a plan to meet your specific needs. These plans can cover the entire machine, including attachments, to help protect your investment.

Operation

Improving operating techniques can boost your profits. Your Cat dealer has videos, literature, and other ideas to help you increase productivity. Caterpillar also offers simulators and certified operator training to help maximize the return on your investment.

Replacement

Repair, rebuild, or replace? Your Cat dealer can help you evaluate the cost involved so you can make the best choice for your business.



Sustainability

Generations ahead in every way

- The C4.4 ACERT engine, along with the Cat Clean Emissions Module (CEM), meets U.S. EPA Tier 4 Interim emission standards.
- Even when operating in high horsepower and high production applications, the 316E performs a similar amount of work while burning up to 8% less fuel than the previous D Series model. This means more efficiency, less resources consumed, and fewer emissions.
- The 316E has the flexibility of running on either ultra-low-sulfur diesel (ULSD) fuel with 15 ppm of sulfur or less or biodiesel (B20) fuel blended with ULSD that meets ASTM 6751 or EN 14214 standards.
- An overfill indicator rises when the fuel tank is full to help service technicians avoid spilling.
- The QuickEvac™ option ensures fast, easy, and secure changing of engine and hydraulic oil.
- The 316E is built to be rebuilt with major structures and components capable of being remanufactured to reduce waste and replacement costs.
- An efficient engine oil filter eliminates the need for painted metal cans and aluminum top plates. The cartridge-style spin-on housing enables the internal filter to be separated and replaced; the used internal element can be incinerated to help reduce waste.
- The 316E is an efficient, productive machine that's designed to conserve our natural resources for generations ahead.

316E Hydraulic Excavator Specifications

Engine		
Engine Model	Cat® C4.4 ACERT™	
Net Power – SAE J1349	85 kW	113 hp
Gross Power – SAE J1995	90 kW	120 hp
Bore	105 mm	4.13 in
Stroke	127 mm	5.00 in
Displacement	4.4 L	269 in ³

Hydraulic System		
Main System – Maximum Flow (Total)	300 L/min	79 gal
Swing System – Maximum Flow	150 L/min	40 gal
Maximum Pressure – Equipment	35 000 kPa	5,076 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	22 600 kPa	3,278 psi
Pilot System – Maximum Flow	25.8 L/min	1,574 in ³ /min
Pilot System – Maximum Pressure	4120 kPa	598 psi
Boom Cylinder – Bore	110 mm	4 in
Boom Cylinder – Stroke	1193 mm	47 in
Stick Cylinder – Bore	120 mm	5 in
Stick Cylinder – Stroke	1331 mm	52 in
Bucket Cylinder – Bore	110 mm	4 in
Bucket Cylinder – Stroke	1039 mm	41 in

Drive		
Maximum Travel Speed	5.2 km/h	3.2 mph
Maximum Drawbar Pull	156.2 kN	35,115 lbf

Swing Mechanism		
Swing Speed	9.3 rpm	
Swing Torque	44.7 kN·m	32,969 lb ft

Service Refill Capacities		
Fuel Tank Capacity	290 L	76.61 gal
Cooling System	24 L	6.34 gal
Engine Oil (with filter)	13.5 L	3.57 gal
Swing Drive	2.4 L	0.63 gal
Final Drive (each)	5 L	1.32 gal
Hydraulic System (including tank)	190 L	50.19 gal
Hydraulic Tank	106 L	28.00 gal

Track	
Number of Shoes (each side)	44 pieces
Number of Track Rollers (each side)	7 pieces
Number of Carrier Rollers (each side)	2 pieces

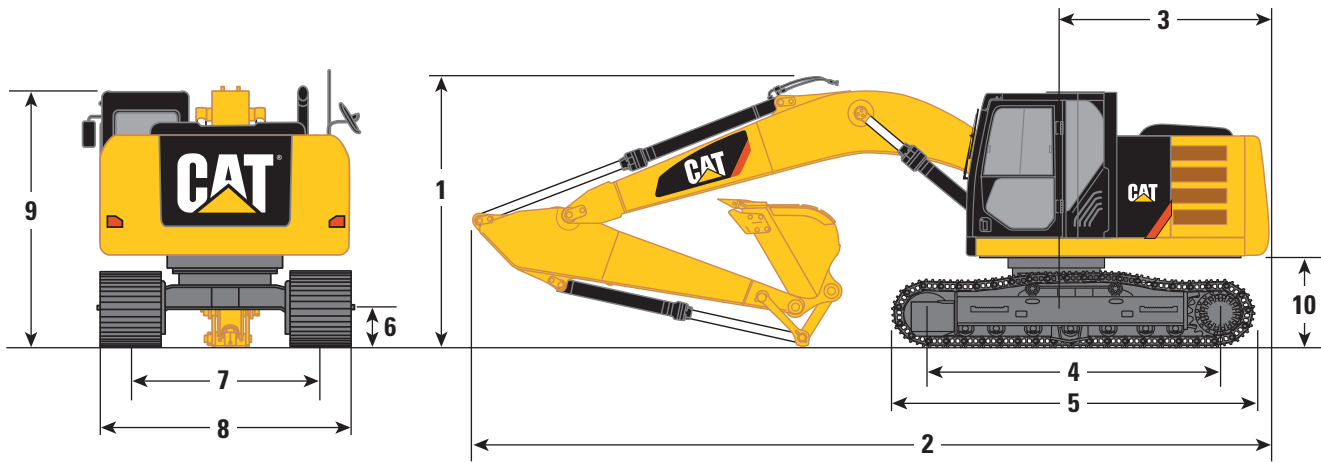
Sound Performance	
Operator – ISO 6396	71 dB(A)
Spectator – ISO 6395	101 dB(A)

- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in noisy environment.

Standards	
Brakes	ISO 10265 2008
ROPS cab	ISO 12117-2
Cab/OPG	ISO 10262 1998

Dimensions

All dimensions are approximate.



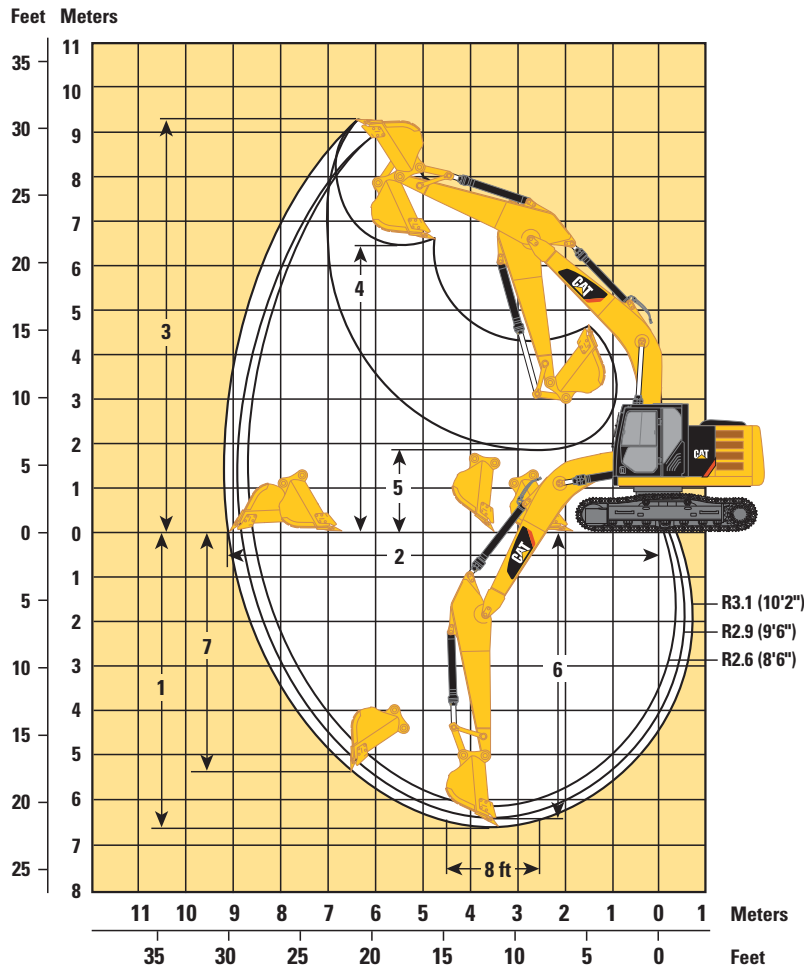
Stick	Reach Booms 5.1 m (16'9")		
	R3.1 (10'2")	R2.9 (9'6")	R2.6 (8'6")
	mm (ft)	mm (ft)	mm (ft)
1 Shipping Height*	3370 (11'1")	3090 (10'2")	3090 (10'2")
Shipping Height at Boom Top	3370 (11'1")	3080 (10'1")	3020 (9'11")
Shipping Height with Guard Rail	3090 (10'2")	3090 (10'2")	3090 (10'2")
Shipping Height with Top Guard	3100 (10'2")	3100 (10'2")	3100 (10'2")
2 Shipping Length	8570 (28'1")	8580 (28'2")	8570 (28'1")
3 Tail Swing Radius	2500 (8'2")	2500 (8'2")	2500 (8'2")
4 Length to Center of Rollers	3170 (10'5")	3170 (10'5")	3170 (10'5")
5 Track Length	3970 (13'0")	3970 (13'0")	3970 (13'0")
6 Ground Clearance	440 (1'5")	440 (1'5")	440 (1'5")
7 Track Gauge	1990 (6'6")	1990 (6'6")	1990 (6'6")
8 Transport Width			
500 mm (20") Shoes	2520 (8'3")	2520 (8'3")	2520 (8'3")
600 mm (24") Shoes	2590 (8'6")	2590 (8'6")	2590 (8'6")
700 mm (28") Shoes	2690 (8'10")	2690 (8'10")	2690 (8'10")
9 Cab Height	2890 (9'6")	2890 (9'6")	2890 (9'6")
Cab Height with Top Guard	3100 (10'2")	3100 (10'2")	3100 (10'2")
10 Counterweight Clearance**	1010 (3'4")	1010 (3'4")	1010 (3'4")

*Including shoe lug height.

**Without shoe lug height.

Working Ranges

All dimensions are approximate.



Reach Booms 5.1 m (16'9")

Stick	R3.1 (10'2")	R2.9 (9'6")	R2.6 (8'6")
	mm (ft)	mm (ft)	mm (ft)
1 Maximum Digging Depth	6590 (21'7")	6390 (21'0")	6090 (20'0")
2 Maximum Reach at Ground Level	9260 (30'5")	8990 (29'6")	8780 (28'10")
3 Maximum Cutting Height	9210 (30'3")	8880 (29'2")	8920 (29'3")
4 Maximum Loading Height	6570 (21'7")	6270 (20'7")	6280 (20'7")
5 Minimum Loading Height	1810 (5'11")	2000 (6'7")	2300 (7'7")
6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6400 (21'0")	6160 (20'3")	5870 (19'3")
7 Maximum Vertical Wall Digging Depth	5400 (17'9")	4910 (16'1")	4930 (16'2")

Operating Weight and Ground Pressure

	700 mm (28") Triple Grouser Shoes		600 mm (24") Triple Grouser Shoes		500 mm (20") Triple Grouser Shoes	
	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)
Reach Boom – 5.1 m (16'9")						
R3.1 (10'2")	17 800 (39,242)	36 (5.22)	17 600 (38,801)	42 (6.09)	17 400 (38,367)	49 (7.1)
R2.9 (9'6")	17 800 (39,242)	36 (5.22)	17 600 (38,801)	42 (6.09)	17 400 (38,367)	49 (7.1)
R2.6 (8'6")	17 700 (39,022)	36 (5.22)	17 500 (38,581)	41 (5.95)	17 300 (38,147)	49 (7.1)

Major Component Weights

	kg	lb
Base Machine (with boom cylinder, without counterweight, front linkage and track)	5720	12,610
Long Undercarriage	3770	8,310
Counterweight 2.8 mt (3.1 t)	2800	6,170
Boom (includes lines, pins and stick cylinder)		
Reach Boom – 5.1 m (16'9")	1320	2,910
Reach Boom – 5.1 m (16'9") for CGC	1330	2,930
Stick (includes lines, pins, bucket cylinder, and bucket linkage)		
R3.1 (10'2")	930	2,050
R2.9 (9'6")	910	2,010
R2.6 (8'6")	840	1,850
Track Shoe (Long/per two tracks)		
500 mm (20") Triple Grouser	2190	4,830
600 mm (24") Triple Grouser	2420	5,340
700 mm (28") Triple Grouser	2650	5,840

All weights are rounded up to nearest 10 kg and lb except for buckets. Kg and lb were rounded up separately so some of the kg and lb do not match. Base machine includes 75 kg (165 lb) operator weight, 90% fuel weight, and undercarriage with center guard.

Bucket and Stick Forces

Stick	Reach Booms 5.1 m (16'9")		
	R3.1 (10'2")	R2.9 (9'6")	R2.6 (8'6")
	kN (lbf)	kN (lbf)	kN (lbf)
General Duty			
Bucket Digging Force (SAE)	98 (22,000)	98 (22,000)	98 (22,000)
Stick Digging Force (SAE)	69 (15,500)	73 (16,400)	77 (17,300)
Severe Duty			
Bucket Digging Force (SAE)	96 (21,600)	96 (21,600)	96 (21,600)
Stick Digging Force (SAE)	69 (15,500)	72 (16,200)	77 (17,300)

316E Hydraulic Excavator Specifications

Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side



Boom – 5.1 m (16'9")

Counterweight – 2.8 mt (3.1 t)

Bucket – None

Stick – R3.1 (10'2")

Shoes – 700 mm (28") triple grouser

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				m ft	
	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb		
7.5 m 25.0 ft												*2700 *6,050	*2700 *6,050	5.49 17.57
6.0 m 20.0 ft							*3650 *7,850	3450 7,400				*2450 *5,350	*2450 *5,350	6.76 21.96
4.5 m 15.0 ft							*3850 *8,450	3400 7,250	*2450 2350			*2350 *5,150	2300 5,100	7.52 24.58
3.0 m 10.0 ft			*7450 *15,850	*7450 *15,850	*5300 *11,400	4950 10,700	*4450 *9,650	3250 6,950	3650 *7,500	2300 4,850		*2400 *5,250	2050 4,550	7.93 25.98
1.5 m 5.0 ft			*7550 *18,100	*7550 *17,700	*6700 *14,450	4600 9,900	5000 *10,750	3050 6,550	3600 7,700	2200 4,700		*2550 *5,550	2000 4,350	8.03 26.36
Ground Line			*6650 *15,300	*6650 *15,300	7500 16,100	4350 9,300	4850 10,400	2900 6,250	3500 7,550	2150 4,600		*2800 *6,150	2000 4,400	7.85 25.77
-1.5 m -5.0 ft	*5050 *11,250	*5050 *11,250	*9300 *21,150	7700 16,550	7350 15,800	4200 9,050	4750 10,250	2850 6,100				*3350 *7,350	2150 4,750	7.36 24.12
-3.0 m -10.0 ft	*8400 *18,850	*8400 *18,850	*11 350 *24,500	7800 16,750	7350 15,800	4200 9,050	4800 10,300	2850 6,150				4300 9,500	2600 5,700	6.49 21.18
-4.5 m -15.0 ft			*9000 *19,200	8050 17,300	*6100 *12,850	4350 9,450						*5150 *11,400	3750 8,500	5.04 16.24



Boom – 5.1 m (16'9")

Counterweight – 2.8 mt (3.1 t)

Bucket – None

Stick – R2.9 (9'6")

Shoes – 700 mm (28") triple grouser

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				m ft	
	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb		
7.5 m 25.0 ft												*2950 *6,500	*2950 *6,500	5.08 16.21
6.0 m 20.0 ft							*3650 *7,350	3450 7,350				*2650 *5,800	*2650 *5,800	6.43 20.89
4.5 m 15.0 ft							*4050 *8,850	3350 7,250				*2550 *5,650	2500 5,450	7.23 23.63
3.0 m 10.0 ft			*8000 *17,000	*8000 *17,000	*5500 *11,900	4950 10,600	*4600 *10,000	3200 6,900	*3300 *6,050	2300 4,850		*2650 *5,800	2200 4,850	7.66 25.09
1.5 m 5.0 ft			*7100 *17,000	*7100 *17,000	*6900 *14,900	4550 9,850	5000 10,750	3050 6,550	3600 7,700	2200 4,750		*2850 *6,250	2100 4,600	7.77 25.48
Ground Line			*7050 *16,150	*7050 *16,150	7500 16,050	4300 9,300	4850 10,450	2950 6,300	3500 7,500	2150 4,600		*3200 *7,050	2100 4,650	7.58 24.87
-1.5 m -5.0 ft	*5700 *12,750	*5700 *12,750	*10 100 *22,900	7750 16,600	7350 15,800	4200 9,100	4800 10,300	2850 6,150				3800 8,400	2300 5,100	7.07 23.16
-3.0 m -10.0 ft	*9300 *20,850	*9300 *20,850	*11 100 *23,950	7850 16,800	7400 15,900	4250 9,150	4800 10,350	2900 6,250				4650 10,300	2800 6,200	6.16 20.07
-4.5 m -15.0 ft			*8550 *18,150	8100 17,450	*5700 *12,450	4450						*5550 *12,150	4300 9,800	4.60 14.75

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side















Boom – 5.1 m (16'9")

Counterweight – 2.8 mt (3.1 t)

Bucket – None

Stick – R2.6 (8'6")

Shoes – 700 mm (28") triple grouser

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				m ft		
															
7.5 m 25.0 ft	kg lb												*3250 *7,300	*3250 *7,300	4.76 15.09
6.0 m 20.0 ft	kg lb							*3500 *6,450	3400 *6,450				*2850 *6,350	*2850 *6,350	6.18 20.05
4.5 m 15.0 ft	kg lb					*4600 *10,000	*4600 *10,000	*4300 *9,400	3350 7,200				*2750 *6,100	2600 5,750	7.01 22.89
3.0 m 10.0 ft	kg lb			*8850 *18,850	*8850 *18,850	*5900 *12,650	4900 10,550	*4800 *10,450	3200 6,900				*2800 *6,200	2300 5,100	7.44 24.39
1.5 m 5.0 ft	kg lb					*7200 *15,550	4550 9,800	5000 10,750	3050 6,600	*3400	2250		*3000 *6,600	2200 4,800	7.56 24.80
Ground Line	kg lb			*6250 *14,400	*6250 *14,400	7500 16,100	4350 9,350	4900 10,500	2950 6,350				*3400 *7,450	2250 4,900	7.36 24.16
-1.5 m -5.0 ft	kg lb	*5750 *12,800	*5750 *12,800	*10 150 *23,100	7850 16,850	7450 15,950	4300 9,200	4800 10,350	2900 6,250				4050 8,850	2450 5,400	6.84 22.40
-3.0 m -10.0 ft	kg lb	*9950 *22,400	*9950 *22,400	*10 750 *23,200	8000 17,100	*7450 *16,000	4350 9,300						5000 11,150	3050 6,750	5.89 19.19
-4.5 m -15.0 ft	kg lb			*7750 *16,300	*7750 *16,300								*5400 *11,900	4950 11,350	4.23 13.51















Boom – 5.1 m (16'9")

Counterweight – 2.8 mt (3.1 t)

Bucket – None

Stick – R3.1 (10'2")

Shoes – 600 mm (24") triple grouser

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				m ft		
															
7.5 m 25.0 ft	kg lb												*2700 *6,050	*2700 *6,050	5.49 17.57
6.0 m 20.0 ft	kg lb							*3650 *7,850	3400 7,300				*2450 *5,350	*2450 *5,350	6.76 21.96
4.5 m 15.0 ft	kg lb							*3850 *8,450	3350 7,150	*2450	2300		*2350 *5,150	2300 5,050	7.52 24.58
3.0 m 10.0 ft	kg lb			*7450 *15,850	*7450 *15,850	*5300 *11,400	4900 10,550	*4450 *9,650	3200 6,850	3600 *7,500	2250 4,800		*2400 *5,250	2050 4,500	7.93 25.98
1.5 m 5.0 ft	kg lb			*7550 *18,100	*7550 *17,500	*6700 *14,450	4550 9,750	4950 10,600	3000 6,500	3550 7,550	2150 4,650		*2550 *5,550	1950 4,250	8.03 26.36
Ground Line	kg lb			*6650 *15,300	*6650 *15,300	7400 15,850	4250 9,200	4800 10,250	2900 6,200	3450 7,450	2100 4,500		*2800 *6,150	1950 4,300	7.85 25.77
-1.5 m -5.0 ft	kg lb	*5050 *11,250	*5050 *11,250	*9300 *21,150	7600 16,300	7250 15,550	4150 8,950	4700 10,100	2800 6,000				*3350 *7,350	2150 4,700	7.36 24.12
-3.0 m -10.0 ft	kg lb	*8400 *18,850	*8400 *18,850	*11 350 *24,500	7700 16,500	7250 15,600	4150 8,950	4700 10,150	2800 6,050				4250 9,350	2550 5,650	6.49 21.18
-4.5 m -15.0 ft	kg lb			*9000 *19,200	7950 17,100	*6100 *12,850	4300 9,300						*5150 *11,400	3700 8,400	5.04 16.24

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

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Reach Boom Lift Capacities



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side















Boom – 5.1 m (16'9")

Counterweight – 2.8 mt (3.1 t)

Bucket – None

Stick – R2.9 (9'6")

Shoes – 600 mm (24") triple grouser

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				m ft	
														
7.5 m 25.0 ft	kg lb											*2950 *6,500	*2950 *6,500	5.08 16.21
6.0 m 20.0 ft	kg lb						*3650 *7,350	3400 7,250				*2650 *5,800	*2650 *5,800	6.43 20.89
4.5 m 15.0 ft	kg lb						*4050 *8,850	3350 7,150				*2550 *5,650	2450 5,400	7.23 23.63
3.0 m 10.0 ft	kg lb			*8000 *17,000	*8000 *17,000	*5500 *11,900	4900 10,500	*4600 *10,000	3200 6,850	*3300 *6,050	2250 4,800	*2650 *5,800	2150 4,800	7.66 25.09
1.5 m 5.0 ft	kg lb			*7100 *17,000	*7100 *17,000	*6900 *14,900	4500 9,700	4950 10,600	3000 6,500	3550 7,600	2200 4,650	*2850 *6,250	2050 4,550	7.77 25.48
Ground Line	kg lb			*7050 *16,150	*7050 *16,150	7400 15,850	4250 9,150	4800 10,300	2900 6,200	3500	2100	*3200 *7,050	2100 4,600	7.58 24.87
-1.5 m -5.0 ft	kg lb	*5700 *12,750	*5700 *12,750	*10 100 *22,900	7650 16,350	7250 15,600	4150 8,950	4700 10,150	2800 6,050			3750 8,250	2300 5,000	7.07 23.16
-3.0 m -10.0 ft	kg lb	*9300 *20,850	*9300 *20,850	*11 100 *23,950	7750 16,600	7300 15,650	4200 9,000	4750 10,250	2850 6,150			4600 10,200	2750 6,100	6.16 20.07
-4.5 m -15.0 ft	kg lb			*8550 *18,150	8000 17,250	*5700	4400					*5550 *12,150	4250 9,650	4.60 14.75















Boom – 5.1 m (16'9")

Counterweight – 2.8 mt (3.1 t)

Bucket – None

Stick – R2.6 (8'6")

Shoes – 600 mm (24") triple grouser

	1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				m ft	
														
7.5 m 25.0 ft	kg lb					*7,500 *7,500						*3250 *7,300	*3250 *7,300	4.76 15.09
6.0 m 20.0 ft	kg lb							*3500 *6,450	3350 *6,450			*2850 *6,350	*2850 *6,350	6.18 20.05
4.5 m 15.0 ft	kg lb					*4600 *10,000	*4600 *10,000	*4300 *9,400	3300 7,100			*2750 *6,100	2550 5,700	7.01 22.89
3.0 m 10.0 ft	kg lb			*8850 *18,850	*8850 *18,850	*5900 *12,650	4850 10,400	*4800 *10,450	3200 6,850			*2800 *6,200	2300 5,000	7.44 24.39
1.5 m 5.0 ft	kg lb					*7200 *15,550	4500 9,700	4950 10,600	3050 6,500	*3400	2200	*3000 *6,600	2150 4,750	7.56 24.80
Ground Line	kg lb			*6250 *14,400	*6250 *14,400	7400 15,900	4300 9,250	4800 10,350	2900 6,250			*3400 *7,450	2200 4,850	7.36 24.16
-1.5 m -5.0 ft	kg lb	*5750 *12,800	*5750 *12,800	*10 150 *23,100	7750 16,600	7350 15,700	4200 9,100	4750 10,250	2850 6,150			3950 8,750	2400 5,350	6.84 22.40
-3.0 m -10.0 ft	kg lb	*9950 *22,400	*9950 *22,400	*10 750 *23,200	7850 16,900	7400 15,850	4250 9,200					4950 11,000	3000 6,650	5.89 19.19
-4.5 m -15.0 ft	kg lb			*7750 *16,300	*7750 *16,300							*5400 *11,900	4900 11,200	4.23 13.51

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

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Work Tool Offering Guide*

Boom Type	Reach Boom			
	Stick Size	R3.1 (10'2")	R2.9 (9'6")	R2.6 (8'6")
Hydraulic Hammer		H110Es H115Es H120Es	H110Es H115Es H120Es	H110Es H115Es H120Es
Pulverizer		P215	P215	P215
Mobile Scrap and Demolition Shear		S325B**	S325B**	S325B**
Compactor (Vibratory Plate)		CVP75	CVP75	CVP75
Contractors' Grapple		G115B	G115B	G115B
Trash Grapple				
Thumbs				
Center-Lock Pin Grabber Coupler				

These work tools are available for the 316E.
 Consult your Cat dealer for proper match.

*Matches are dependent on excavator configurations. Consult your Cat dealer for proper work tool match.

**Boom-mount.

Bucket Specifications and Compatibility

	Width		Capacity		Weight		Fill	Reach Booms			
	mm	in	m ³	yd ³	kg	lb		R2.6 (8'6")	R2.9 (9'6")	R3.1 (10'2")	R3.1 (10'2") Thumb*
Without Quick Coupler											
General Duty (GD)	600	24	0.35	0.46	445	980	100%	●	●	●	●
	750	30	0.49	0.64	502	1,106	100%	●	●	●	●
	900	36	0.62	0.81	548	1,208	100%	●	●	●	●
	1050	42	0.76	1.00	595	1,312	100%	●	⊙	⊙	⊖
	1200	48	0.91	1.19	672	1,480	100%	X	⊖	X	○
Severe Duty (SD)	600	24	0.35	0.46	496	1,093	90%	●	●	●	●
	750	30	0.49	0.64	564	1,243	90%	●	●	●	●
	900	36	0.62	0.81	644	1,420	90%	●	●	●	●
	1050	42	0.76	1.00	689	1,519	90%	●	●	⊙	⊙
	1200	48	0.91	1.19	762	1,678	90%	X	⊖	X	○
Maximum load pin-on (payload + bucket)							kg	2205	2095	1945	1875
							lb	4,860	4,617	4,287	4,133
With Center Lock Quick Coupler											
General Duty (GD)	600	24	0.35	0.46	445	980	100%	●	●	●	●
	750	30	0.49	0.64	502	1,106	100%	●	●	●	●
	900	36	0.62	0.81	548	1,208	100%	●	⊙	⊖	⊖
	1050	42	0.76	1.00	595	1,312	100%	⊖	⊖	○	○
	1200	48	0.91	1.19	672	1,480	100%	○	◇	◇	◇
Severe Duty (SD)	600	24	0.35	0.46	496	1,093	90%	●	●	●	●
	750	30	0.49	0.64	564	1,243	90%	●	●	●	●
	900	36	0.62	0.81	644	1,420	90%	●	⊙	⊖	⊖
	1050	42	0.76	1.00	689	1,519	90%	⊖	⊖	○	○
	1200	48	0.91	1.19	762	1,678	90%	○	○	◇	◇
Maximum load with coupler (payload + bucket)							kg	1815	1705	1555	1485
							lb	4,000	3,758	3,427	3,273

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451.

Bucket weight with General Duty tips.

* Densities with 3.1 m (10'2") thumb stick does not consider thumb weight.

Maximum Material Density:

- 2100 kg/m³ (3,500 lb/yd³)
- ⊙ 1800 kg/m³ (3,000 lb/yd³)
- ⊖ 1500 kg/m³ (2,500 lb/yd³)
- 1200 kg/m³ (2,000 lb/yd³)
- ◇ 900 kg/m³ (1,500 lb/yd³)
- X Not recommended

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

Standard Equipment

Standard equipment may vary. Consult your Cat dealer for details.

ENGINE

- C4.4 diesel engine
- Biodiesel capable
- Meets EPA Tier 4 Interim emission standards
- 2300 m (7,500 ft) altitude capability
- Electric priming pump
- Automatic engine speed control
- Economy and high power modes
- Two-speed travel
- Side-by-side cooling system
- Radial seal air filter
- Primary filter with water separator and water separator indicator
- Secondary filter
- Screen filter in fuel line
- Cold weather battery -25°C (-13°F)
- Jump start receptacle

HYDRAULIC SYSTEM

- Regeneration circuit for boom and stick
- Reverse swing dampening valve
- Automatic swing parking brake
- High-performance hydraulic return filter
- Capability of installing HP stackable valve and medium and QC valve
- Capability of installing additional auxiliary pump and circuit
- Capability of installing boom lowering control device and stick lowering check valve
- Fine swing control

CAB

- Pressurized operator station with positive filtration
- Sliding upper door window (left-hand cab door)
- Glass-breaking safety hammer
- Removable lower windshield with in cab storage bracket
- Coat hook
- Beverage holder
- Literature holder
- AM/FM radio
- Radio with MP3 auxiliary audio port
- Two 12V stereo speakers
- Storage shelf suitable for lunch or toolbox
- Color LCD display with indicators, filter/fluid change, and working hour information
- Adjustable armrest
- Height adjustable joystick consoles
- Neutral lever (lock out) for all controls
- Travel control pedals with removable hand levers
- Capability of installing two additional pedals
- Two power outlets, 10 amp (total)
- Travel alarm
- Laminated glass front upper window and tempered other windows
- Sunscreen

UNDERCARRIAGE

- Grease Lubricated Track GLT2, resin seal
- Towing eye on base frame
- Swivel guard

COUNTERWEIGHT

- 2.8 mt (3.1 t)

ELECTRICAL

- 80 amp alternator
- Circuit breaker
- Capability to electrically connect a beacon

LIGHTS

- Halogen boom light (left side)
- Time delay function for boom light and cab light
- Exterior lights integrated into storage box

SECURITY

- Cat one key security system
- Door locks
- Cap locks on fuel and hydraulic tanks
- Lockable external tool/storage box
- Signaling/warning horn
- Secondary engine shutoff switch
- Openable skylight for emergency exit
- Rearview camera-ready

Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

ENGINE

- Quick drains, engine and hydraulic oil

HYDRAULIC SYSTEM

- Control pattern quick-changer, two way
- Auxiliary hydraulics
- Boom and stick lines
- High-pressure line
- Medium-pressure line
- Cat quick coupler line – high-pressure capable
- Boom lowering and stick lowering control device
- Cat Bio hydraulic oil

CAB

- Cab hatch emergency exit
- Seat, high-back air suspension with heater and cooling
- Seat, high-back air suspension with heater
- Seat, high-back mechanical suspension
- Windshield wiper, lower with washer
- Air pre-filter
- Left foot switch
- Left pedal
- Straight travel pedal
- Rain protector
- Cab mirror
- Ashtray

UNDERCARRIAGE

- 500 mm (20") triple grouser shoes
- 600 mm (24") triple grouser shoes
- 700 mm (28") triple grouser shoes
- Full-length track guiding guard
- Guard, heavy-duty bottom
- Center track guiding guard
- Segmented (2 piece) track guiding guard

FRONT LINKAGE

- Quick coupler
- Bucket linkage, without lifting eye
- 5.1 m (16'9") reach boom
- 2.6 m (8'6") stick
- 2.9 m (9'6") stick
- 3.1 m (10'2") stick
- 3.1 m (10'2") thumb-ready stick

LIGHTS

- Working lights, cab mounted with time delay
- HID lights, cab mounted with time delay
- Halogen boom lights (right side)

SECURITY

- FOGS, bolt-on
- Side steel bumper
- Guard rail
- Guard, cab front, mesh
- Guard, vandalism
- Rearview camera

TECHNOLOGY

- Cat Grade Control Depth and Slope
- Product Link

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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AEHQ6433-01 (05-2013)
Replaces AEHQ6433
(Americas)



336D/ 336D L

Hydraulic Excavator



Engine

Engine Model	Cat® C9 with ACERT™ Technology
Net Flywheel Power	200 kW

Weights

Operating Weight – Std. Undercarriage	33 750 kg
Operating Weight – Long Undercarriage	35 020 kg

336D/336D L Hydraulic Excavator

The D Series incorporates innovations for improved performance and versatility.

Engine

- ✓ The C9 with ACERT™ Technology offers better fuel efficiency and reduced wear. It works at the point of combustion to optimize engine performance and provide low exhaust emissions. By combining ACERT Technology with the new Economy Mode and Power Management, customers can balance the demands of performance and fuel economy to suit their requirements and application. **pg. 4**

Service and Maintenance

Fast, easy service has been designed in with extended service intervals, advanced filtration, convenient filter access and user-friendly electronic diagnostics for increased productivity and reduced maintenance costs. **pg. 12**

Hydraulics

The hydraulic system has been designed to provide reliability and outstanding controllability. An optional Tool Control System provides enhanced flexibility. **pg. 5**

Complete Customer Support

Your Cat® dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment. The dealer will help you choose a plan that can cover everything from machine configuration to eventual replacement. **pg. 13**

Operator Station

- ✓ Provides maximum space, wider visibility and easy access to switches. The monitor is a full-color graphical display that allows the operator to understand the machine information easily. Overall, the new cab provides a comfortable environment for the operator. **pg. 6**



Structures

Caterpillar® design and manufacturing techniques assure outstanding durability and service life from these important components. **pg. 8**

Booms and Sticks

Three lengths of booms and eight sticks are available to suit a variety of application conditions. **pg. 9**

Work Tools – Attachments

✓ A variety of work tools, including buckets, couplers, hammers, and shears are available through Cat Work Tools. **pg. 10**



✓ *New Feature*

Engine

The Cat® C9 gives the 336D exceptional power and fuel efficiency unmatched in the industry for consistently high performance in all applications.



Cat C9. The Cat C9 with ACERT™ Technology introduces a series of evolutionary, incremental improvements that provide breakthrough engine technology. The building blocks of ACERT Technology are fuel delivery, air management and electronic control. ACERT Technology optimizes engine performance while meeting local engine emission regulations for off-road applications. By combining ACERT Technology with the new Economy Mode, customers can balance the demands of performance and fuel economy to suit their requirements and application.

Performance. The 336D/336D L, equipped with a C9 with ACERT Technology, provides 9% more horsepower as compared to the C9 in the 330C/330C L.

Power Management. Optimizes machine performance for each type of application. The operator can change the engine power on the monitor (password protected) from standard to high. The high power mode is recommended for extremely productive and hard digging applications. The standard power mode is recommended for lighter duty applications and optimizes fuel efficiency.

Automatic Engine Speed Control. The two-stage, one-touch control maximizes fuel efficiency and reduces sound levels.

ADEM™ A4 Engine Controller.

The ADEM A4 electronic control module manages fuel delivery to get the best performance per liter of fuel used. The engine management system provides flexible fuel mapping, allowing the engine to respond quickly to varying application needs. It tracks engine and machine conditions while keeping the engine operating at peak efficiency.

Fuel Delivery. The Cat C9 features electronic controls that govern the unit fuel injection system. Multiple injection fuel delivery involves a high degree of precision. Precisely shaping the combustion cycle lowers combustion chamber temperatures, generating fewer emissions and optimizing fuel combustion. This translates into more work output for your fuel cost.

Cooling System. The cooling fan is hydraulically driven with a variable speed control that manages fan speed to provide optimized cooling. The optimum fan speed is calculated based on the target engine speed, coolant temperature, hydraulic oil temperature and actual fan speed. The Cat C9 delivered a completely new layout that separates the cooling system from the engine compartment.

Air Cleaner. The radial seal air filter features a double-layered filter core for more efficient filtration and is located in a compartment behind the cab. A warning is displayed on the monitor when dust accumulates above a preset level.

Noise Reduction Technologies.

The engine mounts are rubber-isolating mounts matched with the engine package. Further noise reduction has been achieved through design changes to the isolated top cover, oil pan, multiple injection strategy, insulated timing cover, sculpted crankcase and gear train refinements.

Hydraulics

Cat hydraulics delivers power and precise control to keep material moving.

Component Layout. The 336D hydraulic system and component locations have been designed to provide a high level of system efficiency. The main pumps, control valves and hydraulic tank are located close together to allow for shorter tubes and lines between components, which reduce friction loss, and pressure drops in the lines. The layout further provides greater operator comfort by placing the radiator on the cab side of the upper structure. This allows incoming air to enter the engine compartment from the operator side and hot air and corresponding engine sound to exit on the opposite side away from the operator. This reduces engine compartment heat and sound being transmitted to the operator.

Pilot System. The pilot pump is independent from the main pumps and controls the front linkage, swing and travel operations.

Hydraulic Cross Sensing System. The hydraulic cross sensing system utilizes each of two hydraulic pumps to 100 percent of engine power, under all operating conditions. This improves productivity with faster implement speeds and quicker, stronger pivot turns.

Boom and Stick Regeneration Circuit. Boom and stick regeneration circuit saves energy during boom-down and stick-in operation which increases efficiency, reduces cycle times and pressure loss for higher productivity, lower operating costs and increased fuel efficiency.



Auxiliary Hydraulic Valve. The auxiliary valve is standard on the 336D. Control Circuits are available as attachments, allowing for operation of high and medium pressure tools such as shears, grapples, hammers, pulverizers, multi-processors and vibratory plate compactors.

Hydraulic Cylinder Snubbers. Snubbers are located at the rod-end of the boom cylinders and both ends of the stick cylinders to cushion shocks while reducing sound levels and extending component life.

Operator Station

Designed for comfort, simple and easy operation, the 336D allows the operator to focus on production.



Operator Station. The workstation is spacious, quiet and comfortable, assuring high productivity during a long workday. The air conditioner and attachment switches are conveniently located on the right-hand wall, and the key switch and throttle dial are on the right-hand console. The monitor is mounted in front of the right front cab post and is easy to see.

Standard Cab Equipment. To enhance operator comfort and productivity, the cab includes a lighter, drink holder, coat hook, service meter, literature holder, magazine rack and storage compartment.



Monitor. The monitor is a full color 400x234 pixels Liquid Crystal Display (LCD) graphic display. The monitor angle can be adjusted to minimize sun glare and has the capability of displaying information in twenty-seven different languages.

The Master Caution Lamp blinks ON and OFF when one of the critical conditions below occurs:

- Engine oil pressure low
- Coolant temperature high
- Hydraulic oil temperature high

Under normal conditions or the default condition, the monitor display screen is divided into four areas; clock and throttle dial, gauge, event display and multi-information display.

Clock and Throttle Dial Display.

The clock and throttle dial position are displayed in this area. When Economy mode/Power management system is activated, the icon of the gas station icon will be indicated at the side of the throttle dial.

Gauge Display. Three analog gauges, fuel level, hydraulic oil temperature and coolant temperature, are displayed in this area.

Event Display. Machine information is displayed in this area with the icon and language.

Multi-information Display. This area is reserved for displaying various information that is convenient for the operator. The “CAT” logo mark is displayed when no information is available to be displayed.

Joystick Control. Joystick controls have low lever effort and are designed to match the operator’s natural wrist and arm position. The operator can operate joystick controls with an arm on the armrest and the horizontal and vertical strokes have been designed to reduce operator fatigue.

Seat. A new optional air suspension seat is available in the 336D. The standard and optional seats provide a variety of adjustments to suit the operator’s size and weight including fore/aft, height and weight. Wide adjustable armrests and a retractable seat belt are also included.

Hydraulic Activation Control Lever. For added safety, this lever must be in the operate position to activate the machine control functions.

Climate Control. Positive filtered ventilation with a pressurized cab is standard. Fresh air or re-circulated air can be selected with a switch on the left console.



Console. Redesigned consoles feature a simple, functional design to reduce operator fatigue, ease of switch operation and excellent visibility. Both consoles have attached armrests with height adjustments.

Cab Exterior. The exterior design uses thick steel tubing along the bottom perimeter of the cab, improving the resistance of fatigue and vibration. This design allows the FOGS to be bolted directly to the cab, at the factory or as an attachment later, enabling the machine to meet specifications and job site requirements.

Cab Mounts. The cab shell is attached to the frame with viscous rubber cab mounts, which dampen vibrations and sound levels while enhancing operator comfort.

Windows. To promote visibility, all glass is affixed directly to the cab, eliminating window frames. The upper front windshield opens, closes and stores on the roof above the operator with a one-touch action release system.

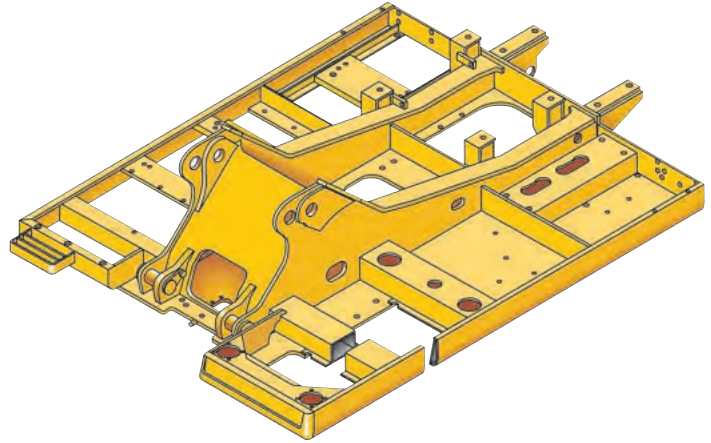
Wipers. Pillar-mounted wipers increase the operator’s viewing area and offer continuous and intermittent modes.

Skylight. An enlarged skylight with sunshade provides excellent visibility and excellent ventilation.

Product Link. Product Link is now an attachment available from the factory.

Structures

336D structural components and undercarriage are the backbone of the machine's durability.



Robotic Welding. Up to 95% of the structural welds on a Caterpillar® Excavator are completed by robots. Robotic welds achieve over three times the penetration of manual welds.

Carbody Design and Track Roller Frames. X-shaped, box-section carbody provides excellent resistance to torsion bending. Robot-welded track roller frames are press-formed, pentagonal units to deliver exceptional strength and service life.

Main Frame. Rugged main frame is designed for maximum durability and efficient use of materials.

Undercarriage. Durable Cat undercarriage absorbs stresses and provides excellent stability.

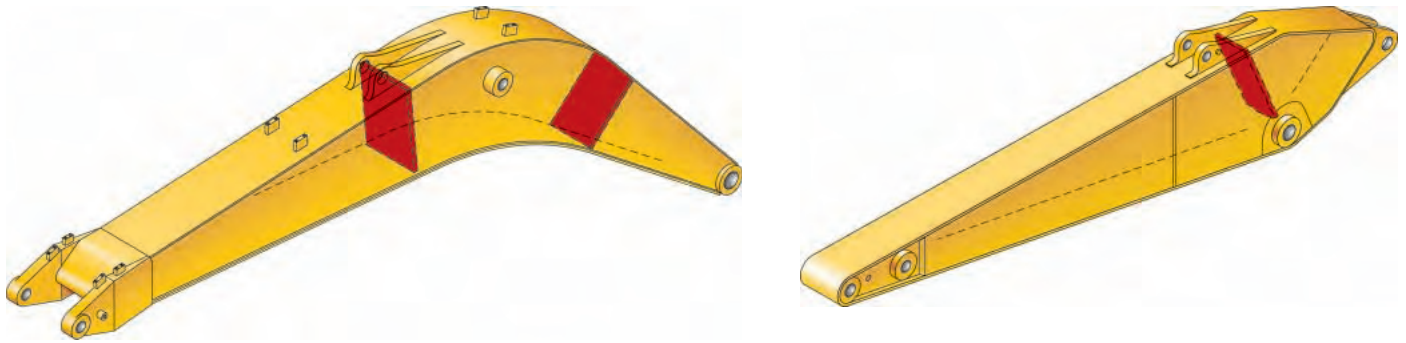
Rollers and Idlers. Sealed and lubricated track rollers, carrier rollers, and idlers provide excellent service life, to keep the machine in the field longer.

Standard Undercarriage. The standard undercarriage is well suited for applications that require frequent repositioning of the machine, have restricted working space or uneven, rocky terrain.

Long Undercarriage. The long (L) undercarriage maximizes stability and lift capacity. This long, wide, and sturdy undercarriage offers a very stable work platform.

Booms and Sticks

Designed-in flexibility to help bring higher production and efficiency to all jobs.



Booms, Sticks and Attachments.

Designed for maximum flexibility, productivity and high efficiency on all jobs, the 336D offers a wide range of configurations suitable for a variety of applications.

Front Linkage Attachments. Three lengths of booms and eight sticks are available, offering a range of configurations suitable for a wide variety of application conditions.

Booms. The booms have large cross-sections and internal baffle plates to provide long life durability.

Sticks. The sticks are made of high-tensile strength steel using a large box section design with interior baffle plates and an additional bottom guard.

Reach Boom. The reach boom features an optimum design that maximizes digging envelopes with four stick choices:

R3.9DB, R3.2DB and R2.8DB Sticks

- The DB-family bucket associated with these sticks have enough capacity for excellent reach and depth in trenching and general construction applications.

R3.9DB Stick

- Suited for the high-capacity buckets used in trenching, excavation, and other general construction work. Designed with enough reach and depth to match a large-capacity bucket and high digging force.

R3.2DB Stick

- This stick provides the most versatile front linkage. The R3.2DB is an excellent fit for all 11-ton to 32 ton dump trucks with regard to reach and bucket capacity.

R2.8DB Stick

- Designed with enough reach and depth to match a large-capacity bucket and high digging force. Suitable for the high-capacity buckets used in trenching, excavation and other general construction work.

R2.15TB1 Stick

- This stick was designed particularly for large capacity-construction work.

Mass Excavation Boom. The mass excavation boom maximizes productivity. The mass version offers significantly higher digging forces and allows use of larger buckets.

M2.55TB1 and M2.15TB1 Sticks

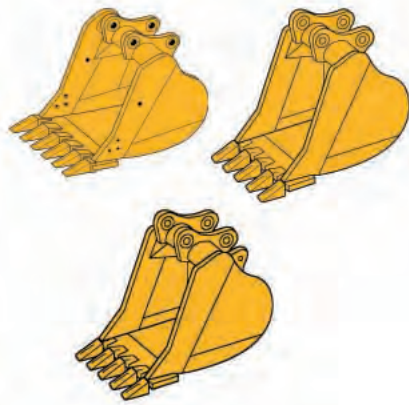
- The TB1 Sticks use a TB-family bucket and were designed for high volume earth moving, powerful digging force and a large capacity bucket. Combined with a Mass boom, these sticks deliver outstanding productivity.

Linkage Pins. The bucket linkage pins have been enlarged to improve reliability and durability. All the pins in the front linkages have thick chrome plating, giving them high wear and corrosion resistance.

Bucket Linkage. The power link improves durability, increases machine-lifting capability in key lifting positions and is easier to use than compared to the previous lifting eye.

Work Tools – Attachments

The 336D has an extensive selection of work tools to optimize machine performance.



Service Life. Caterpillar buckets increase service life and reduce repair costs.

- Dual radius design for increased heel clearance and reduced wear
- Robot welding of hinge assembly for increased weld penetration and longer life
- Incorporates the new aggressive and easier to install, K Series™ GET tool system
- High strength and heat-treated steel that exceeds T-1 in high wear areas

Excavation Buckets (X). Excavation (X) buckets for digging in low-impact, moderately abrasive materials such as dirt, loam, gravel and clay.

Heavy-Duty Buckets. Heavy duty (HD) buckets for a wide range of moderately abrasive applications such as mixed dirt, clay and rock. HD buckets have best loading and dumping characteristics and will empty easier in cohesive material. More robust construction than the GP buckets.

Heavy-Duty Power (HDP) Buckets.

For use in moderately abrasive applications where breakout force and cycle times are critical. Maximizes tip force and improves cycle times in most materials. Not for use in sticky material conditions. Cutting edge and GET are up-sized.

Heavy-Duty Rock Buckets. Heavy-duty rock for aggressive bucket loading in highly abrasive application such as shot rock and granite. Features include:

- Thickest wear plates to extend the life of bucket in severe applications
- Side wear plated extend further up the side of the bucket for maximum protection in rocky soils
- Buckets accept sidebar protectors for best sidebar protection, or side cutters for best fill characteristics and bucket wear protection

Caterpillar Ground Engaging Tools (GET).

The new Caterpillar K Series GET is featured on the new buckets. This new GET system uses a hammerless vertical retainer, which is easier to remove and install than the Cat J Series pin. The new tooth shapes are more aggressive and offer better penetration than the previous generation of tips. There are also a variety of side cutters and sidebar protectors to match operating conditions.



Tool Control System. The optional tool control system maximizes work tool productivity by configuring hydraulic flow, pressure, and operator controls to match a specific work tool. System versatility enables a wide range of tools to be used.

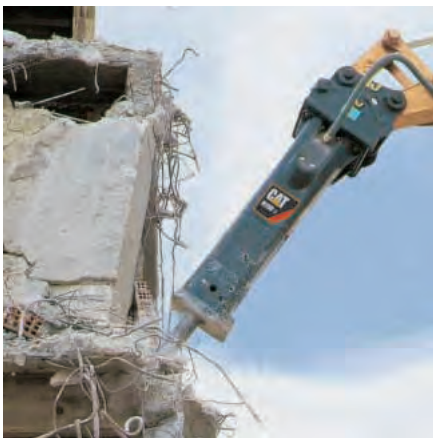
Versatility

A wide variety of optional factory-installed attachments are available to enhance performance and improve job site management.



Thumb

Cat® thumbs multiply the capabilities of your excavator. This highly flexible tool works in conjunction with the bucket to transform an excavator into a highly versatile material-handling machine.



Hammer

Cat Hydraulic Hammers are precisely matched to Cat machines for optimum performance in a wide variety of demolition and construction applications.



Multi-processor

Multi-processors do the work of many types of demolition tools by use of interchangeable jaw sets. Changing jaws allows a single unit to crush, pulverize and perform a variety of specialized cutting tasks, such as cutting steel rebar and tanks.



Vibratory Plate Compactor

Caterpillar® Vibratory Plate Compactors provide superior compaction force in a reliable, low-maintenance package. These units produce high-power impulses at a rate of 2,200 impacts per minute. The forces generated by this vibration drive soil particles close together for solid, stable compactions. Whether in a trench or on a slope, driving sheeting or posts, Cat Compactors are the superior choice for any jobsite's compaction tasks.



360° Scrap Shear

Caterpillar Scrap Shears feature 360° rotation and high force-to-weight ratio. Used for demolishing steel structures and preparing bulk scrap (such as cars, farm machinery and railroad cars) for further processing.



Pin-Grabber Quick Coupler

Pin-Grabber Plus Quick Couplers multiply the versatility and utility of Cat Excavators by allowing them to pick up and use virtually any work tool equipped with standard pins.

Dedicated Quick Coupler. Quick Couplers increase the versatility of Cat excavators; allowing the ease of changing work tools to meet job requirements at hand in a matter of minutes or seconds. Dedicated quick coupler buckets have no loss of tip radius, and develop maximum breakout force.

Service and Maintenance

Simplified service and maintenance features save you time and money.



Ground Level Service. The design and layout of the 336D was made with the service technician in mind. Many service locations are easily accessible at ground level allowing critical maintenance to get done quickly and efficiently.

Air Filter Compartment. The air filter features a double-element construction for superior cleaning efficiency. When the air cleaner plugs, a warning is displayed on the monitor screen inside the cab.

Pump Compartment. A service door on the right side of the upper structure allows ground-level access to the pump and pilot filter.

Radiator Compartment. The left rear service door allows easy access to the engine radiator, oil cooler and air-to-air-after-cooler. A reserve tank and drain cock are attached to the radiator for simplified maintenance.

Capsule Filter. The hydraulic return filter, a capsule filter, is situated outside the hydraulic tank. This filter prevents contaminants from entering the system when hydraulic oil is changed and keeps the operation clean.

Greasing Points. A concentrated remote greasing block on the boom delivers grease to hard-to-reach locations on the front.

Fan Guard. Engine radiator fan is completely enclosed by fine wire mesh, reducing the risk of an accident.

Anti-Skid Plate. Anti-skid plate covers top of storage box and upper structure to prevent slipping during maintenance.

Diagnostics and Monitoring. The 336D is equipped with S•O•SSM sampling ports and hydraulic test ports for the hydraulic system, engine oil, and for coolant. A test connection for the Cat Electronic Technician (Cat ET) service tool is located in the cab.

Extended Service Interval. 336D service and maintenance intervals have been extended to reduce machine service time and increase machine availability.

Complete Customer Support

Cat dealer services help you operate longer with lower costs.



Product Support. You will find nearly all parts at our dealer parts counter. Cat dealers utilize a worldwide computer network to find in-stock parts to minimize machine down time. Save money with remanufactured components.

Machine Selection. Make detailed comparisons of the machines you are considering before you buy. What are the job requirements, machine attachments and operating hours? What production is needed? Your Cat dealer can provide recommendations.

Purchase. Look past initial price. Consider the financing options available as well as day-to-day operating costs. This is also the time to look at dealer services that can be included in the cost of the machine to yield lower equipment owning and operating costs over the long run.

Customer Support Agreements. Cat dealers offer a variety of product support agreements, and work with customers to develop a plan the best meets specific needs. These plans can cover the entire machine, including attachments, to help protect the customer's investment.

Operation. Improving operating techniques can boost your profits. Your Cat dealer has videotapes, literature and other ideas to help you increase productivity, and Caterpillar offers certified operator training classes to help maximize the return on your investment.

Maintenance Services. Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as Scheduled Oil Sampling, Coolant Sampling and Technical Analysis help you avoid unscheduled repairs.

Replacement. Repair, rebuild, or replace? Your Cat dealer can help you evaluate the cost involved so you can make the right choice.

SAFETY.CAT.COM™.

Engine

Engine Model	Cat C9 with ACERT Technology
Net Flywheel Power	200 kW
Net Power – ISO 9249	200 kW
Bore	112 mm
Stroke	149 mm
Displacement	8.8 L

- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- No engine derating needed up to 2300 m.

Weights

Operating Weight – Std. Undercarriage	33 750 kg
Operating Weight – Long Undercarriage	35 020 kg

- Reach boom, R3.2DB Stick, 1.4 m³ Bucket, 600 mm Shoes
- Reach boom, R3.2DB Stick, 1.5 m³ Bucket, 700 mm Shoe

Track

Standard w/Standard Undercarriage	700 mm
Standard w/Long Undercarriage	800 mm
Optional – Double Grouser	600 mm

Swing Mechanism

Swing Speed	10 rpm
Swing Torque	108.6 kN•m

Drive

Maximum Drawbar Pull	300 kN
Maximum Travel Speed	5 km/h

Hydraulic System

Main Implement System – Maximum Flow (2x)	280 L/min
Max. Pressure – Equipment	35 000 kPa
Max. Pressure – Travel	35 000 kPa
Max. Pressure – Swing	28 000 kPa
Pilot System – Maximum Flow	43 L/min
Pilot System – Maximum Pressure	3900 kPa
Boom Cylinder – Bore	150 mm
Boom Cylinder – Stroke	1440 mm
Stick Cylinder – Bore	170 mm
Stick Cylinder – Stroke	1738 mm
DB Family Bucket Cylinder – Bore	150 mm
DB Family Bucket Cylinder – Stroke	1151 mm
TB1 Family Bucket Cylinder – Bore	160 mm
TB1 Family Bucket Cylinder – Stroke	1356 mm

Service Refill Capacities

Fuel Tank Capacity	620 L
Cooling System	40 L
Engine Oil	40 L
Swing Drive	19 L
Final Drive (each)	8 L
Hydraulic System (including tank)	410 L
Hydraulic Tank	175 L

Sound Performance

Performance	ANSI/SAE J1166 OCT 98
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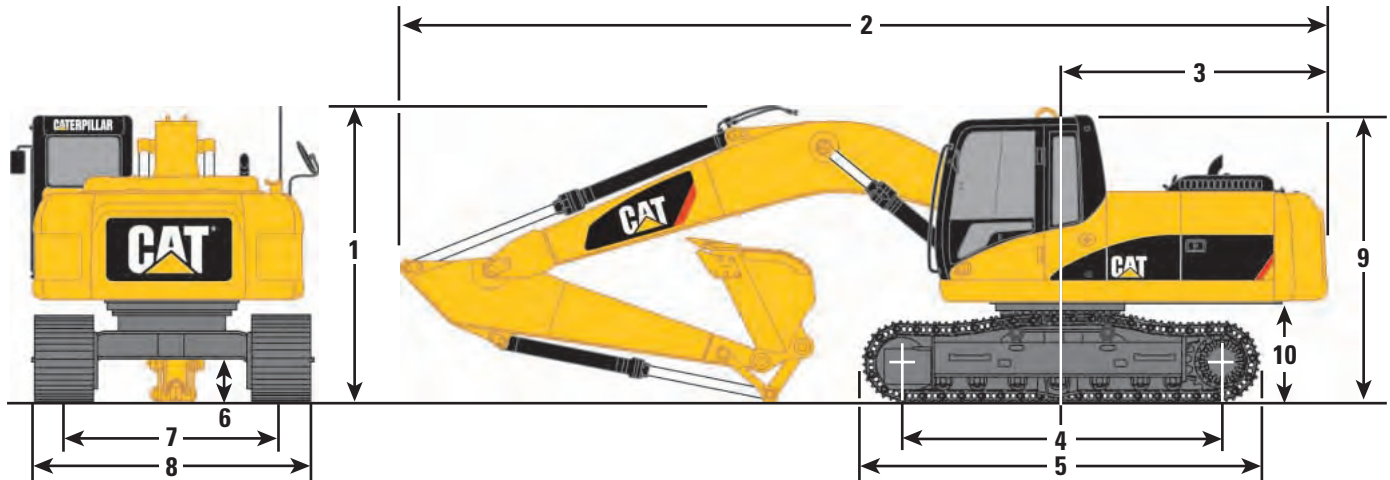
- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT 98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in noisy environment.

Standards

Brakes	SAE J1026 APR90
Cab/FOGS	SAE J1356 FEB88 ISO 10262

Dimensions

All dimensions are approximate.



Boom Options	Reach Boom 6.5 m			Mass Boom 6.18 m		
	R3.9DB	R3.2DB	R2.8DB	R2.15TB1	M2.55TB1	M2.15TB1
Stick Options						
1 Shipping height**	3700 mm	3340 mm	3570 mm	3540 mm	3650 mm	3680 mm
2 Shipping length	11 200 mm	11 150 mm	11 210 mm	11 500 mm	10 910 mm	11 200 mm
3 Tail swing radius	3500 mm	3500 mm	3500 mm	3500 mm	3500 mm	3500 mm
Undercarriage		Fixed Gauge		Long Fixed Gauge		
4 Length to center of rollers		3610 mm		4040 mm		
5 Track length		4590 mm		5020 mm		
6 Ground clearance***		450 mm		450 mm		
7 Track gauge		2590 mm		2590 mm		
8 Track width*		3190 mm		3290 mm		
9 Cab height**		3140 mm		3140 mm		
10 Counterweight clearance***		1220 mm		1220 mm		

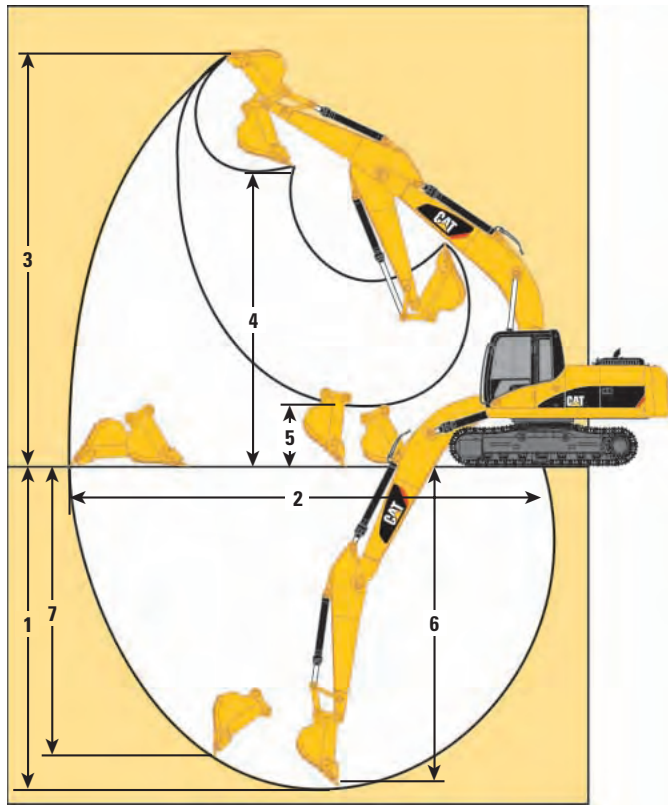
* Track width shown is for 600 mm track shoes for Fixed Gauge and 700 mm for Long Fixed Gauge.

** Includes 30 mm shoe lug height.

*** Without 30 mm shoe lug height.

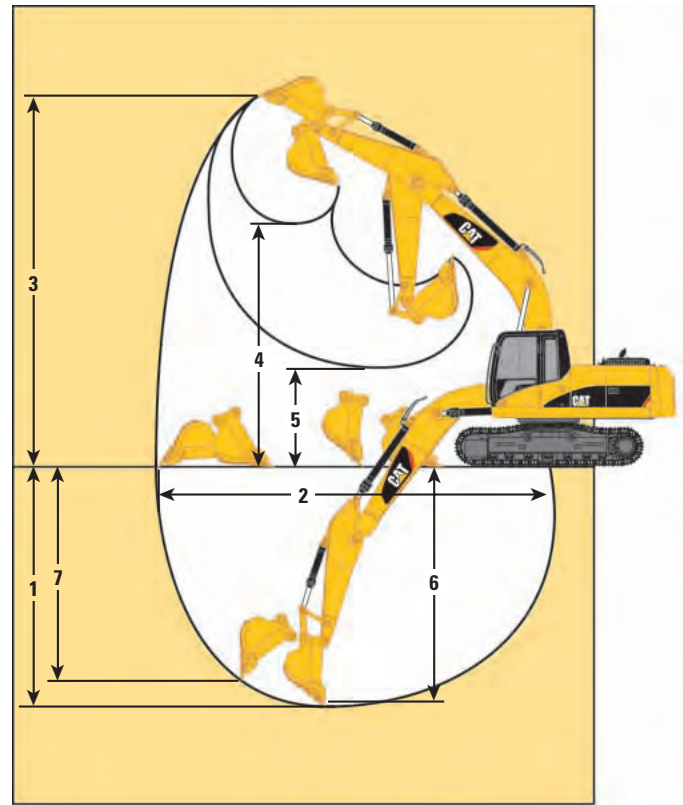
Reach Excavator Working Ranges

Reach (R) boom configuration



Mass Excavator Working Ranges

Mass (M) boom configuration



Boom Options

Reach Boom 6.5 m

Mass Boom 6.18 m

Stick Options	R3.9DB	R3.2DB	R2.8DB	R2.15TB1	M2.55TB1	M2.15TB1
1 Maximum digging depth	8090 mm	7390 mm	6990 mm	6500 mm	6570 mm	6170 mm
2 Maximum reach at ground level	11 640 mm	10 920 mm	10 620 mm	10 070 mm	10 180 mm	9760 mm
3 Maximum cutting height	10 710 mm	10 240 mm	10 300 mm	9820 mm	10 070 mm	9740 mm
4 Maximum loading height	7640 mm	7200 mm	7200 mm	6530 mm	6690 mm	6410 mm
5 Minimum loading height	2010 mm	2710 mm	3110 mm	3590 mm	3000 mm	3400 mm
6 Maximum depth cut for 2240 mm level bottom	7960 mm	7230 mm	6820 mm	6280 mm	6400 mm	5970 mm
7 Maximum vertical wall digging depth	6700 mm	5830 mm	5770 mm	4800 mm	5340 mm	4710 mm
Bucket digging force (SAE)	198 kN	198 kN	198 kN	234 kN	234 kN	234 kN
(ISO)	222 kN	222 kN	222 kN	264 kN	264 kN	264 kN
Stick digging force (SAE)	143 kN	164 kN	183 kN	215 kN	185 kN	215 kN
(ISO)	146 kN	169 kN	188 kN	224 kN	192 kN	224 kN

Major Component Weights

		kg
Base machine with counterweight and 800 mm shoes (without front linkage)	With 600 mm Shoe	26 160
	With 700 mm Shoe	27 390
Two boom cylinders (Each)		320
Counterweight		
Non-removal type		6020
Boom (includes lines, pins and stick cylinder)		
Reach boom		3227
Mass boom		3255
Stick (includes lines, pins, bucket cylinder and linkage)		
R3.9DB		2012
R3.2DB		1867
R2.8DB		1792
R2.15TB1		2011
M2.55TB1		2079
M2.15TB1		2011
Track roller frame [includes frame, rollers, idlers, steps, guards, final drive, 800 mm shoes] – each	With 600 mm Shoe	11 980
	With 700 mm Shoe	13 210

336D/336D L Work Tool Matching Guide

Boom Options	Reach Boom 6.5 m				Mass Boom 6.18 m	
	R3.9DB	R3.2DB	R2.80DB	R2.15TB1	M2.55TB1	M2.15TB1
Stick Options						
Hydraulic Hammer	H130s/ H140Ds/ H160Ds	H130s/ H140Ds/ H160Ds	H130s/ H140Ds/ H160Ds	H130s/ H140Ds/ H160Ds	H130s/ H140Ds/ H160Ds	H130s/ H140Ds/ H160Ds
Vibratory Plate Compactor	CVP110	CVP110	CVP110	CVP110	CVP110	CVP110
Multi-Processor	MP20	MP20	MP20	n/a	n/a	n/a
360 Scrap Shear	S320	S320	S320	n/a	n/a	n/a
Trash Grapple	4.4 m ³ 5.8 m ³	4.4 m ³ 5.8 m ³	4.4 m ³ 5.8 m ³	n/a	n/a	n/a
Dedicated Quick Coupler	yes	yes	yes	yes	yes	yes
Pin-Grabber Quick Coupler	yes	yes	yes	yes	yes	yes
Contractors' Grapple	yes	yes	yes	yes	n/a	n/a
Hydraulic Thumb	yes	yes	yes	yes	n/a	n/a

336D Bucket Specifications and Compatibility

	Capacity	Width	Tip Radius	Weight (w/o tips)	Teeth	Total Weight	Reach Stick				Mass Stick	
	m ³	mm	mm	kg	Qty	kg	R3.9DB	R3.2DB	R2.8DB	R2.15TB1	M2.55TB1	M2.15TB1
DB Buckets												
Excavation	1.4	1472	1660	1124	5	1124	●	●	●	—	—	—
	1.5	1559	1660	1167	5	1167	◐	●	●	—	—	—
Heavy Duty	1.4	1500	1691	1305	5	1305	◐	●	●	—	—	—
	1.5	1585	1691	1352	5	1352	◐	●	●	—	—	—
Mass Excavation	1.6	1538	1660	1214	6	1214	◐	●	●	—	—	—
	1.9	1780	1660	1336	6	1336	○	◐	◐	—	—	—
TB Buckets												
Excavation	1.6	1360	1821	1405	4	1405	—	—	—	●	●	●
	1.9	1560	1821	1546	5	1546	—	—	—	●	●	●
	2.0	1628	1821	1583	5	1583	—	—	—	◐	◐	●

336D L Bucket Specifications and Compatibility

	Capacity	Width	Tip Radius	Weight (w/o tips)	Teeth	Total Weight	Reach Stick				Mass Stick	
	m ³	mm	mm	kg	Qty	kg	R3.9DB	R3.2DB	R2.8DB	R2.15TB1	M2.55TB1	M2.15TB1
DB Buckets												
Excavation	1.4	1472	1660	1124	5	1124	●	●	●	—	—	—
	1.5	1559	1660	1167	5	1167	●	●	●	—	—	—
Heavy Duty	1.4	1500	1691	1305	5	1305	●	●	●	—	—	—
	1.5	1585	1691	1352	5	1352	●	●	●	—	—	—
Mass Excavation	1.6	1538	1660	1214	6	1214	◐	●	●	—	—	—
	1.9	1780	1660	1336	6	1336	○	◐	●	—	—	—
TB Buckets												
Excavation	1.6	1360	1821	1405	4	1405	—	—	—	●	●	●
	1.9	1560	1821	1546	5	1546	—	—	—	●	●	●
	2.0	1628	1821	1583	5	1583	—	—	—	◐	●	●

Assumptions for maximum material density rating:

1. Front linkage fully extended at ground line
2. Bucket curled
3. 100% bucket fill factor

* Based on SAE J296, some calculations of capacity specs fall on borderlines. Rounding may allow two buckets to have the same English rating, but different metric ratings.

- 2100 kg/m³ max material density
- ◐ 1800 kg/m³ max material density
- 1500 kg/m³ max material density
- ∴ 1200 kg/m³ max material density
- Not Available

Reach Boom Lift Capacities



Load Point Height



Load Radius Over Front



Load Radius Over Side



















Load at Maximum Reach

R3.2DB STICK – 3200 mm
BUCKET – 1.5 m³

UNDERCARRIAGE – Long
SHOES – 600 mm triple grouser

BOOM – 6500 mm















	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m	
																
9.0 m	kg													*3900	*3900	8.27
7.5 m	kg								*6450	6350				*3700	*3700	9.43
6.0 m	kg								*6700	6300				*3650	3500	10.16
4.5 m	kg							*8450	*8450	*7350	6050	*6750	4250	*3700	3100	10.59
3.0 m	kg					*13 750	13 050	*10 050	8300	*8200	5750	6950	4100	*3900	2950	10.76
1.5 m	kg					*16 350	11 900	*11 500	7700	*9050	5400	6800	3950	*4200	2900	10.67
Ground Line	kg			*6800	*6800	*17 500	11 300	*12 450	7300	8900	5200	6650	3850	*4700	3050	10.33
-1.5 m	kg	*8150	*8150	*12 000	*12 000	*17 500	11 150	12 550	7100	8750	5050	6600	3800	*5450	3400	9.71
-3.0 m	kg	*13 350	*13 350	*18 300	*18 300	*16 500	11 250	*12 250	7100	8800	5050			*6750	4100	8.74
-4.5 m	kg			*19 800	*19 800	*14 350	11 550	*10 700	7300					*5950	5750	7.28
-6.0 m	kg					*10 050	*10 050							*7750	*7750	5.47

* Limited by hydraulic capacity rather than tipping load. The above loads are in compliance with SAE hydraulic excavator lift capacity rating standard J1097. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

R2.8DB STICK – 2800 mm
BUCKET – 1.6 m³

UNDERCARRIAGE – Long
SHOES – 600 mm triple grouser

BOOM – 6500 mm

	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m			
																
9.0 m	kg												*4900	*4900	7.85	
7.5 m	kg							*6850	6250				*4600	4450	9.07	
6.0 m	kg							*7100	6150				*4500	3700	9.84	
4.5 m	kg			*11 400	*11 400	*8950	8800	*7700	5950	7000	4150	*4550	3250	*4550	3250	10.29
3.0 m	kg			*14 600	12 750	*10 500	8150	*8500	5650	6900	4050	*4750	3050	*4750	3050	10.46
1.5 m	kg			*16 900	11 700	*11 850	7650	9150	5400	6750	3900	*5100	3050	*5100	3050	10.37
Ground Line	kg			*17 650	11 250	*12 650	7300	8900	5150	6650	3850	5600	3200	5600	3200	10.02
-1.5 m	kg	*11 400	*11 400	*17 300	11 200	12 600	7150	8800	5100			6250	3600	6250	3600	9.38
-3.0 m	kg	*19 250	*19 250	*16 000	11 350	*12 000	7200	8850	5150			*6750	4450	*6750	4450	8.36
-4.5 m	kg	*18 150	*18 150	*13 500	11 750	*10 000	7450					*5900	*5900	*5900	*5900	6.82

* Limited by hydraulic capacity rather than tipping load. The above loads are in compliance with SAE hydraulic excavator lift capacity rating standard J1097. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

Reach Boom Lift Capacities



Load Point Height



Load Radius Over Front



Load Radius Over Side



Load at Maximum Reach

R3.2DB STICK – 3200 mm
BUCKET – 1.5 m³

UNDERCARRIAGE – Standard
SHOES – 600 mm triple grouser

BOOM – 6500 mm

Load Point Height	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		Load at Maximum Reach		m	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side		
9.0 m	kg													*3900	*3900	8.27
7.5 m	kg								*6450	6200				*3700	*3700	9.43
6.0 m	kg								*6700	6150				*3650	3400	10.16
4.5 m	kg							*8450	*8450	*7350	5900	5950	4150	*3700	3000	10.59
3.0 m	kg					*13 750	12 750	*10 050	8100	7950	5600	5750	4000	*3900	2850	10.76
1.5 m	kg					*16 350	11 600	10 900	7500	7600	5250	5600	3850	4200	2800	10.67
Ground Line	kg			*6800	*6800	16 850	11 000	10 500	7100	7350	5000	5450	3700	4400	2900	10.33
-1.5 m	kg	*8150	*8150	*12 000	*12 000	16 650	10 850	10 250	6900	7200	4900	5400	3650	4850	3250	9.71
-3.0 m	kg	*13 350	*13 350	*18 300	*18 300	*16 500	10 950	10 250	6900	7250	4900			5850	4000	8.74
-4.5 m	kg			*19 800	*19 800	*14 350	11 250	10 500	7100					*5950	5550	7.28
-6.0 m	kg					*10 050	*10 050							*7750	*7750	5.47

* Limited by hydraulic capacity rather than tipping load. The above loads are in compliance with SAE hydraulic excavator lift capacity rating standard J1097. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

Mass Boom Lift Capacities



Load Point Height



Load Radius Over Front



Load Radius Over Side



Load at Maximum Reach

M2.55TB1 STICK – 2550 mm
BUCKET – 1.9 m³

UNDERCARRIAGE – Long
SHOES – 600 mm triple grouser

BOOM – 6180 mm

Load Point Height	3.0 m		4.5 m		6.0 m		7.5 m		Load at Maximum Reach		m	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side		
7.5 m	kg								*3850	*3850	8.56	
6.0 m	kg					*7800	*7800	*7250	5800	*3750	3750	9.37
4.5 m	kg			*11 300	*11 300	*8950	8500	*7750	5600	*3800	3250	9.83
3.0 m	kg			*14 250	12 450	*10 350	7850	*8450	5350	*4000	3000	9.99
1.5 m	kg			*16 450	11 300	*11 600	7300	8800	5050	*4350	3000	9.87
Ground Line	kg			*17 150	10 800	*12 250	6900	8600	4850	*4900	3200	9.48
-1.5 m	kg	*15 350	*15 350	*16 650	10 750	*12 200	6800	8500	4750	*5800	3750	8.76
-3.0 m	kg	*20 700	*20 700	*15 050	10 950	*11 200	6900			*6400	4950	7.62
-4.5 m	kg	*15 900	*15 900	*11 850	11 500	*8200	7300			*8100	7250	6.04

* Limited by hydraulic capacity rather than tipping load. The above loads are in compliance with SAE hydraulic excavator lift capacity rating standard J1097. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

Standard Equipment

Standard equipment may vary. Consult your Caterpillar dealer for details.

Upper Structure

Electrical

- Alternator, 80A
- Light, storage box mounted (one)
- Signaling/Warning horn

Engine

- Cat C9 with ACERT Technology
- Cooling package, high ambient, 48° C with VSF for standard power
- 2300 m altitude capability with no deration
- Air intake heater
- Automatic engine speed control
- EU Stage II compliant
- Radial seal air filter
- Water separator in fuel line
- Waved fin radiator with space for cleaning
- 2 micron fuel filter
- Automatic swing parking brake
- Boom drift reducing valve
- Boom lowering device for back-up
- Caterpillar one key security system
- Counterweight
- Door locks and cap locks
- Mirrors, rearview (frame-right, cab-left)
- Regeneration circuit for boom and stick
- Reverse swing damping valve
- Stick drift reducing valve
- Two speed travel

Operator Station

Cab

- Adjustable armrest
- Ashtray with lighter
- Beverage holder
- Bi-Level air conditioner (automatic) with defroster
- Bolt-on FOGS capability
- Capability of installing two additional pedals
- Coat hook
- Front windshield glass split 70/30
- Interior lighting
- Literature holder
- Mounting for two stereo speakers (two locations)
- Neutral lever (lock out) for all controls
- Openable front windshield with assist device
- Openable skylight
- Pillar mounted upper windshield wiper and washer
- Pressurized cab (positive filtered ventilation)
- Radio mounting (DIN size)
- Rear window, emergency exit
- Removable lower windshield with in-cab storage bracket
- Seat with integrated, adjustable console
- Seat belt, retractable (50.8 mm width)
- Sliding upper door window
- Storage compartment suitable for lunch box
- Travel control pedals with removable hand levers
- Utility space for magazine
- Washable floor mat

Monitor

- Economy mode
- Full time clock
- Language display – Full color and graphical display
- Machine condition, error code and tool mode setting
- Start-up level check for hydraulic oil, engine oil and coolant
- Warning information, filter/fluid change information and working hour

Undercarriage

- Grease lubricated GLT2, resin seal
- Idler and center section track guiding
- 800 mm triple grouser track shoe (336D L)
- 700 mm triple grouser track shoes (336D)

Optional Equipment

Optional equipment may vary. Consult your Caterpillar dealer for details.

Front Linkage

- Bucket linkage, DB-family with lifting eye
- Bucket linkage, TB1-family with lifting eye
- Heavy-duty 6.5 m reach boom (with left and right side light)
- Heavy-duty 3.2 m stick for heavy-duty reach boom
- Heavy-duty 2.8 m stick for heavy-duty reach boom
- Reach boom 6.5 m with left and right side light
 - R3.9DB 3900 mm stick
 - R3.2DB 3000 mm stick
 - R2.8DB 2800 mm stick
 - R2.15TB1 2150 mm stick
- Mass boom 6.18 m with left and right side light
 - M2.55TB1 2550 mm stick
 - M2.15TB1 2150 mm stick

Track

- Standard undercarriage
 - 700 mm triple grouser shoes
 - 800 mm triple grouser shoes
- Long undercarriage
 - 600 mm triple grouser shoes
 - 700 mm triple grouser shoes

Guards

- FOGS, bolt-on
- Guard, cab front
- Guard, cab top
- Guard, full length for long undercarriage (two piece)
- Guard, heavy-duty bottom, 4 mm, without swivel guard and travel motor protection
- Guard, track end guide for long undercarriage
- Guard, track end guide for standard undercarriage
- Guard, vandalism
- Heavy-duty swivel protection, 16 mm, swivel guard only
- Heavy-duty travel motor protection
- Net for front guard (full net, one piece)
- Net for front guard (half net, one piece)
- Swivel protection, 6 mm, swivel guard only

Auxiliary Hydraulics and Lines

- Additional circuit
 - Hammer return filter circuit
- Boom and stick lines
 - Cat quick coupler line (high and medium pressure capable)
 - Drain line
 - High pressure line
 - Medium pressure line
- Quick coupler
 - Quick coupler for high pressure
- Tool control system
 - Configuration 1 (hammer 1), foot pedal operated 1P, one-way circuit
 - Configuration 2 (common), foot pedals operated 1/2P, common circuit
 - Configuration 3 (hammer 2), foot pedal operated 2P, one-way circuit

Operator Station

- Tempered glass windows
- Polycarbonate windows
- Power supply, 12V-7A (1)
- Power supply, 12V-7A (2)
- Rear window emergency exit
- Seat, high-back air suspension
- Seat, high-back air suspension with heater
- Seat, high-back mechanical suspension
- Seat, low-back suspension without headrest
- Headrest
- Sunscreen
- Windshield wiper, lower with washer
- Working lights, cab mounted
- Rain protector for front windshield
- Sun visor
- AM/FM radio
- Control pattern quick-changer, two way
- Control pattern quick-changer, four way
- Cat MSS (anti-theft device)
- Lunch box with cover
- Water level indicator for water separator

Other Optional Equipment

- Additional gear train for auxiliary pump
- Air pre-filter
- Electric refueling pump with auto shut off
- Fine swing
- Starting kit, cold weather, -32° C
- Travel alarm

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and industry solutions, visit us on the web at www.cat.com

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Materials and specifications are subject to change without notice.
Featured machines in photos may include additional equipment.
See your Caterpillar dealer for available options.

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AEHQ5991 (8-08)

Replaces AEHQ5668-03

APD

561N

Pipelayer



Engine

Engine Model	Cat [®] 3126B	
Gross Power	98 kW	132 hp
Rated Flywheel Power	92 kW	123 hp

Weights

Operating Weight	16 851 kg	37,150 lb
------------------	-----------	-----------

Pipelaying Equipment

Lifting Capacity	18 145 kg	40,000 lb
------------------	-----------	-----------

561N Pipelayer

Excellent response and control for productivity and versatility.

Power Train

- ✓ The Cat 3126B ATAAC diesel engine features a HEUI™ fuel system. Designed for performance, durability, serviceability, and fuel economy, the 3126B HEUI engine meets EPA Tier 2, EU Stage II, and MOC Step 2 exhaust emission regulations. **pg. 4**

Drive Train

Rugged, durable, and reliable components deliver smooth, responsive power and lasting reliability. The Auto-shift and Auto-kickdown features enhance operator comfort. **pg. 5**

Finger Tip Control

- ✓ Finger Tip Control (FTC) combines steering, machine direction and gear selection into a single control system. These control functions can be simultaneously operated using only one hand for enhanced operator comfort and increased productivity. **pg. 6**

Structure

Mainframe is designed and built for durability using the latest technology in engineering and manufacturing. Providing solid support and perfect alignment for major components. **pg. 11**

Undercarriage

Elevated sprocket design for optimized balance and performance. The final drives are above the work area, isolating them from ground impact for long power train component life. Various arrangements to choose from based on the ground conditions. **pg. 12**

Engineered to exceed the most demanding goals. The 561N's increased power and versatility, combined with rugged components, are designed for tough and varied working conditions. This machine offers you the reliability and durability you expect from Cat Pipelayers.



Pipelayer

Hydraulic load line and boom winches provide excellent speed capability. Counterweight and frame design provides excellent stability while offering increased viewing area. **pg. 7**

Operator Station

✓ Ergonomically designed for maximum productivity and comfort. Controls are intuitive, low-effort and easy to reach, viewing area is excellent, instrument panel is easy to read and informative. Simplified access with ladder on the left rear side of the machine. **pg. 8**

Styling

✓ Modern styling with rounded shapes and tapered engine enclosures provide excellent visibility. Robust sheet metal exterior and heavy steel access door panels and guards are easily accessible and durable. **pg. 10**

Serviceability

✓ Major modular components are designed for excellent serviceability and allow fast in-field component exchange. **pg. 13**

Total Customer Support

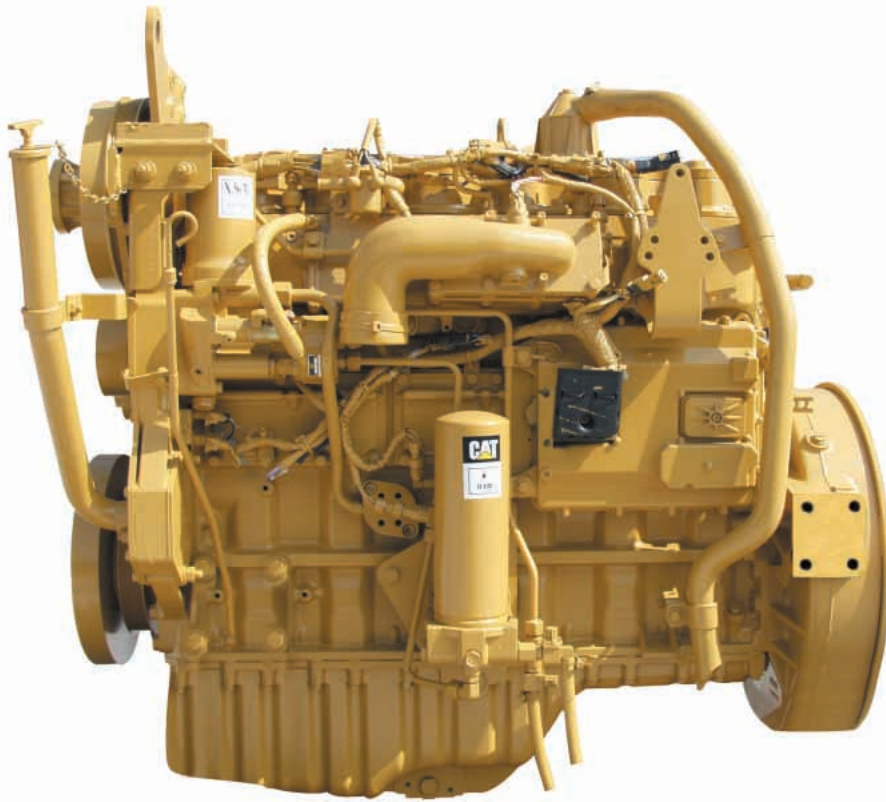
Your Caterpillar® dealer offers a wide range of services that can be set up with a Customer Support Agreement. The dealer can customize a plan for you, from PM service to total machine maintenance, allowing you to optimize your return on investment. **pg. 14**



✓ *New Feature*

Power Train

3126B HEUI engine meets EPA Tier 2, EU Stage II, and MOC Step 2 exhaust emission regulations and offers excellent performance levels.



Cat 3126B HEUI Engine. The Cat 3126B diesel engine is a six cylinder, four-cycle design that provides long, effective power strokes for high torque and more complete fuel combustion. The 3126B engine is equipped with an electronic air inlet heater. The heater warms the air in the air inlet manifold for easier starting and reduced white smoke on cold starts.

Turbocharger and Aftercooler. A well-matched turbocharger and air-to-air aftercooler results in increased power. The exhaust driven turbocharger packs more air into the cylinders, while the air-to-air aftercooler cools the pressurized air from the turbocharger, making the engine intake air denser. The increased air in the cylinder results in more power, improved combustion, and reduced exhaust emissions.

Torque Rise. The direct injected electronic fuel system provides a controlled fuel delivery increase as the engine lugs back from rated speed. This results in increased horsepower above rated power. A combination of increased torque rise and maximum horsepower improves response and provides greater drawbar pull.

- Rated flywheel power 92 kW (123 hp)
- Maximum flywheel power 98 kW (132 hp)

3126B Engine Features. Major features include:

- Increased power to 92 kW (123 hp) for increased performance.
- Large displacement electronic engine with lower exhaust emissions and good cold start capability.
- Power train to engine link with controlled throttle shifting.
- Poly-Vee serpentine engine fan belt with auto tension feature eliminates the traditional three to four belt system.
- Extended oil and engine filter change intervals up to 500 hours after break-in.
- ATAAC cooling system.
- Improved Multiple Row Modular (IMRM) radiator is less subject to plugging due to a unique radiator fin design, which provides excellent heat transfer capability.

Drive Train

Rugged, durable, and reliable components deliver smooth, responsive power and lasting reliability.

Torque Converter. The 561N single stage torque converter efficiently responds to changing load conditions by providing torque multiplication, therefore increasing drawbar power. It also provides protection to the drive train components by preventing shock loads. The torque converter is efficiently matched to the power train components and provides the superior performance you need.

Auto-Shift/Auto-Kickdown. Auto-shift allows the operator to pre-select a forward and reverse gear for easy, efficient directional changes.

Auto-shift settings include:

- First forward to second reverse.
- Second forward to second reverse.
- Second forward to first reverse.

Auto-kickdown allows the transmission to automatically downshift when significant load increases are detected.

Steering Clutch and Brakes. Oil cooled, hydraulically actuated, large diameter plates and clutch discs provide higher torque capacity and increased service life.

Transmission. The proven planetary power shift transmission features three speeds forward and three speeds reverse and utilizes large diameter, high capacity, oil cooled clutches. To maximize the life of the transmission, the planetary design distributes loads and stresses over multiple gears.

- Controlled throttle shifting regulates engine speed during high-energy directional shifts for smoother operation and longer component life.
- The transmission and bevel gear set are modular by design, and easily slide into the machine's rear case.
- Forced oil flow lubricates and cools clutch packs to provide maximum clutch life.
- Load compensating shifting provides smooth engagement of the clutches under loaded conditions.



Elevated Final Drive. Final drives are isolated from ground and work tool induced impact loads for extended power train life.

Electronic Steering and Transmission Controls. The 561N provides Finger Tip Control for steering. Soft touch buttons located on the steering controls shift the electronically controlled transmission.

Electronic Clutch Pressure Control. The 561N has an additional transmission-shifting feature for added performance and operator comfort — the Electronic Clutch Pressure Control (ECPC). This unique feature provides smoother shifting by regulating and modulating the individual clutches based on current operating conditions.

Finger Tip Control

Finger Tip Control (FTC) combines steering, machine direction and gear selection into a single control system, which can be operated with one hand for enhanced operator comfort and increased productivity.



Three-Speed Forward/Reverse Gear Selection. Three-speed forward/reverse gear selection is achieved simply by pressing the yellow speed selection buttons. These buttons are integrated into the Finger Tip Control group.

- Automatic shifting features and reduced lever efforts provide easier upshift and downshift, increased operator comfort, reduced fatigue, and shortened cycle times.

Electronic Clutch and Brake Steering System. The electronic clutch and brake steering system incorporates low effort finger tip levers allowing the operator to work more precisely in close areas, around structures, obstacles and grade stakes. Pulling the left or right finger paddle causes the machine to turn according to the amount of paddle displacement.

- Another feature aimed at operator comfort is electric vertical adjustment of the FTC control group. This positions the operator's arm for efficient ergonomics.

Machine Direction. Moving the machine's transmission forward/neutral/reverse direction lever controls machine direction. The middle position puts the machine transmission in neutral.

Auto-shift and Auto-kickdown. Auto-shift and Auto-kickdown include the following features:

- Auto-shift allows the operator to preselect a forward and reverse gear for frequent directional changes. The settings include first forward to second reverse, second forward to second reverse and second forward to first reverse.
- Auto-kickdown automatically downshifts from any gear when the machine detects a significant increase in load.

Pipelayer

Caterpillar pipelayer system includes winch and boom, counterweight and frame.



Winches and Boom.

- Independent hydraulic winches drive boom and hook drawworks.
- Oil-disc brakes provide smooth operation, positive retention of boom and hook positions.
- Modular design allows fast replacement, easy field service, and testing.
- Single lever, infinitely variable speed controls for both boom and hook allow precise control.
- Emergency free-fall function on load line control allows the operator to drop the load quickly.
- Tubular, cast-steel boom is rugged, delivers better fatigue life.
- Replaceable boom-mount bearings.
- Symmetrical boom simplifies installation.

Counterweight and Frame.

- Counterweight design optimizes viewing area while traveling.
- Mainframe consists of box-section frame welded to cast bevel gear case.
- Counterweight is extended hydraulically for load balance, visibility, and clearance.
- Service latch mechanically locks counterweight in extended position.

Drawbar.

- Large jaw opening and pin diameter.
- Able to tow wide range of attachments.

Operator Station

Ergonomically designed for operator's maximum comfort and productivity.

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Seat. Ergonomically designed and fully adjustable for maximum comfort. The seat cushion reduces the pressure on the lower back and thighs while allowing unrestricted arm and leg movement.

Electronic Monitoring System (EMS III). EMS III provides the operator instant feedback on machine conditions and records performance data to help diagnose problems. Flashable memory allows system upgrades, as new technology and software become available. This system is compatible with Cat ET and CMS service tools. EMS III includes the following gauges and readouts:

- Fuel level gauge
- Hydraulic oil temperature gauge
- Engine coolant temperature gauge
- Power train oil temperature gauge
- Engine oil pressure indicator
- Engine speed digital readout
- Transmission gear indicator
- Hour Meter
- Odometer

Controls. Finger Tip Control (FTC) combines steering, machine direction and gear selection into a single control system, which can be operated with one hand for enhanced operator comfort and increased productivity.



Ergonomic Work Tool Controls. Pipelayer controls are low effort and allow simultaneous, precise positioning of the load line and boom.

Load Line Speed Range. Allows the operator to select High or Low.



Counterweight Control. Adjusts the position of the counterweight for added machine stability.

Power Supply. The voltage converter provides two 12-volt power supplies.

Access Ladder. Direct access to the operator's station utilizing ladder on left side of the machine.

Styling

*Modern styling with rounded shapes and tapered hood enhances operator visibility.
The N-Series combines eye-catching styling with solid, reliable performance.*



Styling. Rounded machine shape offers excellent visibility, accessibility, and serviceability.

- Durable, heavy steel door panel covers.
- Pre-cleaner is below the hood for good visibility.
- Controls are ergonomic for easier operation and better efficiency.

Accessibility and Serviceability.

- Hinged engine door to increase engine and service access.
- Remote-mounted filters located within easy reach during PM service.
- Air pre-cleaner filter condition monitor located in the operator station for high visibility.
- Redesigned fuel tank for easier internal cleaning.
- Fast fill fuel tank provision added (attachment).
- Larger service panel doors.
- Diagnostic test ports added for quick troubleshooting.

Quality and Reliability.

- Doubled 4 mm (0.16 in) sheet metal on the side service access panels and rear guard.
- Stamped, rounded sheet metal corners add strength.
- Rubber isolation mounted fuel tank reduces tank vibration and reduces potential stress fractures.
- Heavy-duty reinforced radiator guard is now standard.
- Heavy-duty rear guard.

Structure

Engineered and manufactured to provide durability in the most demanding work.

Frame and Castings. The 561N case and frames are built to absorb high impact shock loads and torsional forces. Castings are strategically located within the frame to add additional strength. Caterpillar uses robotic welding techniques in the assembly of the case and frames. This insures quality and reliability throughout the structure. The one-piece all welded chassis provides superior strength over bolted designs, and provides stiffness and durability over the life of the machine.

- High strength steel mainframe resists impact shock loads.
- Computer-aided finite element analysis is used to evaluate and ensure high durability of the chassis by computer modeling it and identifying high stress area.
- Full scale structural testing to test integrity of the structures.
- Robotic welding provides deep penetration and consistency for long life, and reduces the chance for errors that may be made during manual welding.
- Precision top level machining for perfect alignment of bores and surfaces minimizes out of tolerance wear patterns and improves durability.
- Non-oscillating roller frames for greater stability in pipelaying applications.



- The recoil system is sealed and lubricated.
- Improved pipelayer structure mounting.

Optional Roll Over Protective Structure. Provides for increased operator comfort and protection.

Undercarriage

The Caterpillar elevated sprocket undercarriage arrangement is designed for better balance, performance, and component life.

Elevated Final Drive.

- Isolates final drives from ground and work tool induced impact loads for extended power train life.
- Keeps sprocket teeth, bushings, and final drives away from abrasive materials and moisture.
- Caterpillar uses single reduction planetary final drives in the 561N providing long-lasting performance and durability.



Undercarriage Arrangements.

Standard Arrangement - Overall shipping width under 3 m (118 in).

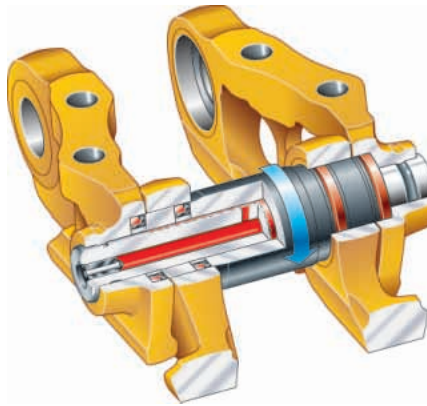
Optional Low Ground Pressure (LGP) arrangement -

- Specially designed to work in soft and spongy conditions.
- Wide track shoes increase track contact area and reduce ground pressure for excellent flotation.

Heavy Duty Sealed and Lubricated Track.

Permanently coats the track pin with a sealed-in lubricant, minimizing metal-to-metal contact.

- Virtually eliminates internal pin and bushing wear.
- Lubricant is held in a reservoir in the track pin.



Optional Rotating Bushing Track.

Rotating Bushing Track is designed to extend system life and lower costs in highly abrasive low to moderate impact applications. RBT features bushings that rotate when in contact with the sprocket. Since the bushing rotates when in contact with the sprocket, relative motion between the bushing and the sprocket is virtually eliminated, greatly reducing bushing and sprocket wear. The minimal bushing wear that occurs is evenly distributed over the bushing's surface. This design eliminates bushing turn maintenance expense.

Complete Guarding.

Caterpillar undercarriages are designed with full length guarding on top of the track roller frame. This prevents abrasive materials from falling down on moving parts.



Roller Frames. Roller frames are tubular, to resist bending and twisting. The recoil system is sealed and lubricated.

Optional High Flange Improved Track Rollers. Combined with center or full length roller guard attachments greatly improve track guiding for demanding side slope conditions.

Track Shoes. Select from 560 mm (22 in) to 760 mm (30 in) single grouser shoes made from heat-treated, rolled steel for added strength. This allows for narrow machine transportability on low ground pressure arrangements.

Serviceability

Modular design moves Caterpillar a generation ahead in simplifying service and maintenance.



Product Link. This option allows the customer or dealer to obtain machine diagnostics and location from their offices. Product Link provides updates on service meter hours, machine condition, machine location, as well as integrated mapping/route planning.



Electronic Monitoring System.

The 561N features a more flexible monitoring system that is easily upgraded by flashing software rather than replacing the module, reducing parts cost. As technology changes and new electronics and software become available, this upgraded monitoring system will allow the machine to be easily updated.



Built-in Serviceability. Less service time means more working time. Major components are designed as modules and most can be removed without disturbing or removing other components.

Diagnostics. Cat 561N diagnostic and troubleshooting capabilities are among the best. The machine dashboard allows for quick identification of a problem and its cause, utilizing a three level warning system. Diagnostic connector allows Caterpillar dealers to quickly troubleshoot the 561N or access stored data with the use of Electronic Technician (Cat ET) or ECAP.

Ecology Drains. Ecology drains provide an environmentally safer method to drain fluids. They are included on the radiator, hydraulic tank, and major power train components.

Modular Cooling System. Individual radiator core modules are easily serviced without major component removal.

Easy Engine Maintenance. Many parts can be rebuilt and are available as remanufactured components.

- Parent-metal block can be rebored twice and dry-sleeved.
- Connecting rods can be removed through cylinder tops.
- Camshaft followers and push rods can be replaced without removing camshaft.
- Extended oil and engine filter change intervals up to 500 hours.

Total Customer Support

Excellent parts availability and the best service capability help increase productivity.



Product Support. Your Cat Dealer offers a wide range of services that can be set up under a Customer Support Agreement (CSA) when you purchase your equipment. The dealer will help you choose a plan that can cover everything from the machine and attachment selection to replacement. This will help you get the best return on your investment.

Remanufactured Components.

Save money with remanufactured parts. You receive the same warranty and reliability as new products at a cost savings of 40 to 70 percent.

Service Capability. Whether in the dealer's fully equipped shop or in the field, you will get trained service technicians using the latest technology and tools.

Purchase. Consider the financing options available as well as day-to-day operating costs. This is also the time to look at dealer services that can be included in the cost of the machine to yield lower equipment owning and operating costs over the long run.

Replacement. Repair, rebuild, or replace? Your Cat Dealer can help evaluate the cost involved so you can make the right choice.

Maintenance. More and more equipment buyers are planning for effective maintenance before buying equipment. Choose from your dealer's wide range of maintenance services at the time of your purchase. Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as Scheduled Oil Sampling and Technical Analysis help avoid unscheduled repairs.

Engine

Engine Model	Cat 3126B	
Gross Power	98 kW	132 hp
Rated Flywheel Power	92 kW	123 hp
Net Power - Caterpillar	92 kW	123 hp
Net Power - ISO 9249	92 kW	123 hp
Net Power - EEC 80/1269	92 kW	123 hp
Net Power - SAE J1349	92 kW	123 hp
Net Power - DIN 70020	114 PS	
Bore	110 mm	4.33 in
Stroke	127 mm	5 in
Displacement	7.2 L	439 in ³

- Engine ratings at 2100 rpm.
- Meets the EPA Tier 2, EU Stage II, and MOC Step 2 exhaust emission regulations.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator.
- No derating required up to 4600 m (15,100 ft) altitude, beyond 4600 m (15,100 ft) automatic derating occurs.

Transmission

1 Forward	3.1 kph	1.9 mph
2 Forward	5.4 kph	3.3 mph
3 Forward	9.1 kph	5.6 mph
1 Reverse	3.8 kph	2.3 mph
2 Reverse	6.7 kph	4.1 mph
3 Reverse	11.3 kph	6.9 mph

Undercarriage

Number of Shoes - Each Side	44	
Track Rollers - Each Side	8	
Track Gauge	2000 mm	79 in
Track on Ground	2604 mm	103 in
Track Shoe Width - Standard	560 mm	22 in
Track Shoe Width - LGP (1)	610 mm	24 in
Track Shoe Width - LGP (2)	760 mm	30 in
Ground Contact Area - Standard Shoe	2.93 m ²	4,542 in ²
Ground Contact Area - LGP (1) Shoe	3.18 m ²	4,924 in ²
Ground Contact Area - LGP (2) Shoe	3.96 m ²	6,135 in ²
Ground Pressure - Standard Shoe	56 kPa	8.1 psi
Ground Pressure - LGP (1) Shoe	52 kPa	7.6 psi
Ground Pressure - LGP (2) Shoe	42 kPa	6.1 psi

Weights

Operating Weight	16 851 kg	37,150 lb
Shipping Weight	15 921 kg	35,100 lb

- Operating Weight: Includes lubricants, coolant, 100% fuel, hydraulic controls and fluids, backup alarm, seat belt, 560 mm (22 in) single grouser shoes, drawbar, counterweight, boom and pulley blocks and operator.
- Shipping Weight: Includes lubricants, coolant, 10% fuel, hydraulic controls and fluids, backup alarm, seat belt, 560 mm (22 in) single grouser shoes, drawbar, and counterweight.

Pipelaying Equipment

Lifting Capacity	18 145 kg	40,000 lb
Hook Winch Drum Diameter	216 mm	8.5 in
Boom Winch Drum Diameter	245 mm	9.63 in
Hook Winch Flange Diameter	398 mm	15.5 in
Boom Winch Flange Diameter	372 mm	14.63 in
Hook Winch Drum Length	254 mm	10 in
Boom Winch Drum Length	254 mm	10 in
Hook Winch Capacity - 16 mm (5/8 in) diameter	72.85 m	239 ft
Boom Winch Capacity - 16 mm (5/8 in) diameter	49.38 m	162 ft
Hook w/ Wire Rope Installed - 16 mm (5/8 in) diameter	39.63 m	130 ft
Boom w/ Wire Rope Installed - 16 mm (5/8 in) diameter	25.91 m	85 ft
Boom Line Speed	46 m/min	151 ft/min
Bare Drum Hook Speed (Lo)	33 m/min	108 ft/min
Bare Drum Hook Speed (Hi)	69.5 m/min	228 ft/min
2 Part Line Hook Speed (Lo)	16.5 m/min	54 ft/min
2 Part Line Hook Speed (Hi)	34.8 m/min	114 ft/min
3 Part Line Hook Speed (Lo)	11 m/min	36 ft/min
3 Part Line Hook Speed (Hi)	23.2 m/min	76 ft/min
Boom Length	5.49 m	18 ft
Removable Counterweight - Number of Segments	16	
Removable Counterweight - 7 each at	114 kg	251 lb
Removable Counterweight - 9 each at	191 kg	421 lb
Total weight extendable	2980 kg	6,570 lb

- Hydraulic Power (55.7 gpm @ 2700 psi and 2200 rpm pump speed independent of torque converter) (211 L/min @ 18 616 kPa/186 bar)

Hydraulic Controls

Type	Two-section vane pump with pilot operated control valves.	
Output - Maximum	216 L/min	57.1 gal/min
Relief Valve Setting - Counterweight	19 600 kPa	2,850 psi
Relief Valve Setting - Hook and Boom Winch	18 600 kPa	2,700 psi

- Pump output @ 2200 pump rpm (2100 engine rpm) and maximum pressure.

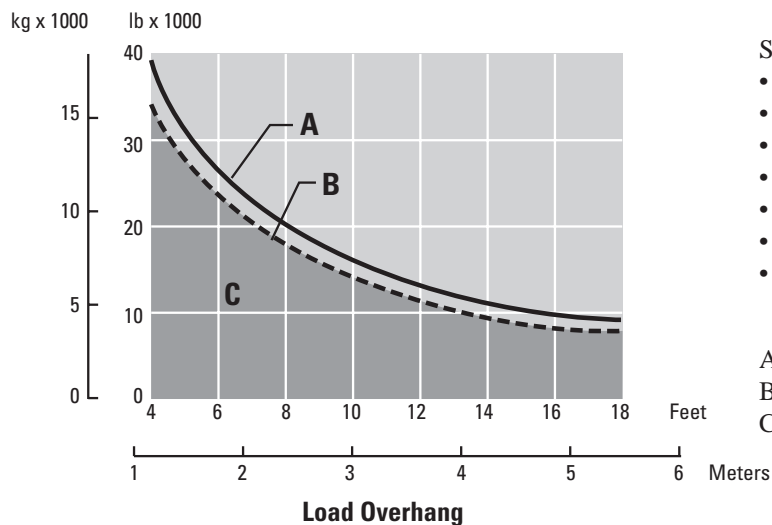
Standards

- Brakes meet the standard SAE J/ISO 10265 MARCH99.
- Optional ROPS (Rollover Protection Structure) offered by Caterpillar for the machine meets ROP criteria SAE J397 OCT95, SAE J1040 MAY94, ISO 3164 1995, and ISO 3471-11994.

Service Capacities

Fuel Tank	235 L	62.2 gal
Crankcase (with Filter)	26 L	6.9 gal
Final Drives (each)	6 L	1.6 gal
Boom Winch	5.7 L	1.5 gal
Cooling system	48 L	12.6 gal
Hydraulic Tank	37.5 L	9.9 gal

Lifting Capacity



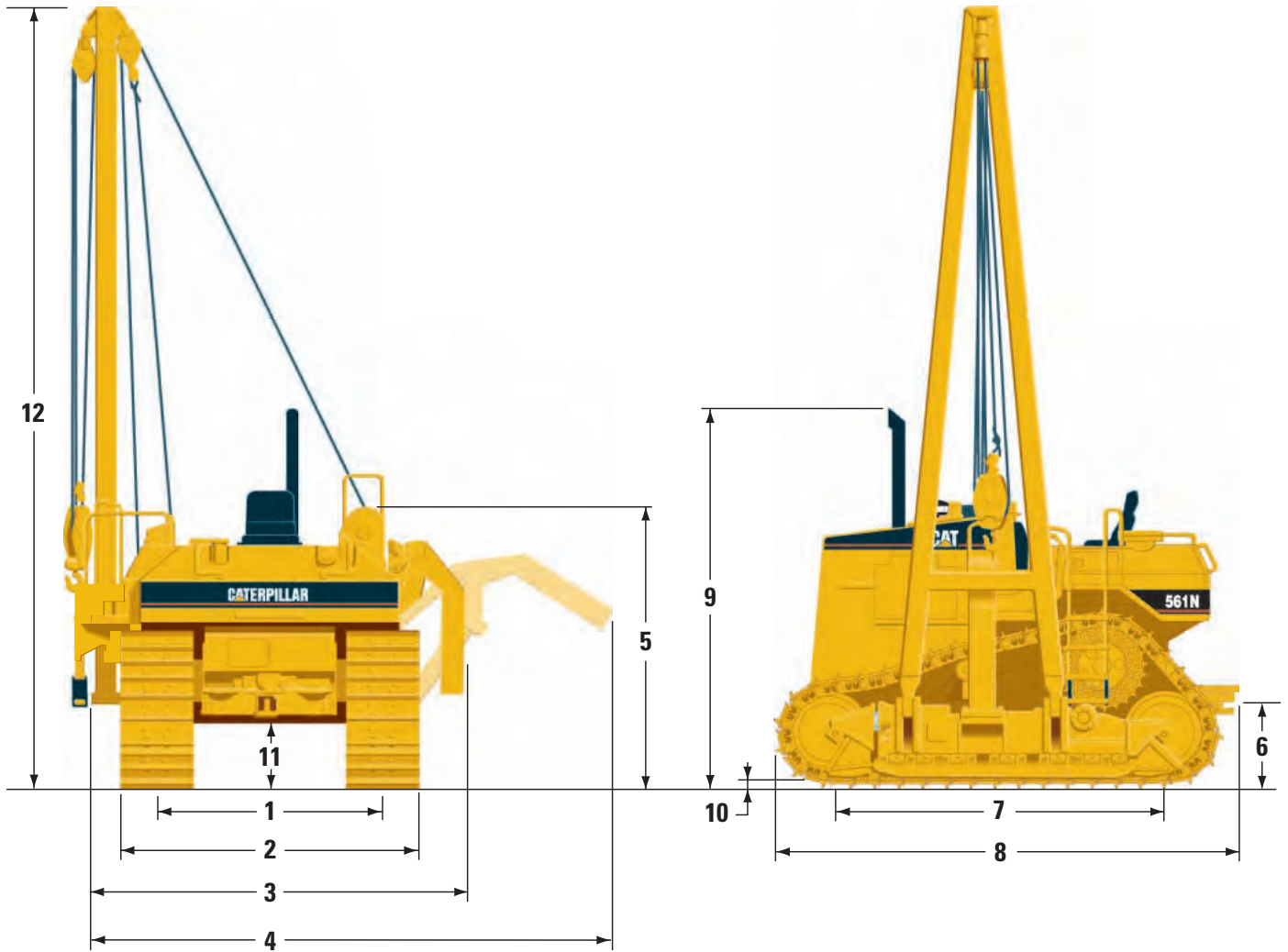
Specified Equipment

- Diameter wire rope 16 mm 5/8 in
- Minimum breaking strength 18 688 kph 41,200 lb
- 3 part load line
- 3 part boom line
- Counterweight extended 2980 kg 6570 lb
- Standard boom 5.49 m 18 ft
- Total operating weight 16 851 kg 37,150 lb

- A Maximum lift capacity per ISO 8813
- B Rated load capacity per ANSI/ASME B30.14
- C Working range per ANSI/ASME B30.14

Dimensions

All dimensions are approximate.



1	Track Gauge	2000 mm	79 in
2	Width of Tractor - Standard Shoes	2560 mm	101 in
3	Width of Tractor - Counterweight/Boom Removed	2983.5 mm	117.5 in
4	Width of Tractor - Counterweight Extended	4463 mm	176 in
5	Machine Height - Tip of Grouser to Top of Winch	2519 mm	99 in
6	Drawbar Height (Center of Clevis)	537.5 mm	21 in

7	Length of Track on Ground	2604 mm	103 in
8	Operating Length (with Drawbar)	3708.5 mm	146 in
9	Height to Top of Stack	3041.4 mm	119 in
10	Grouser Height	47 mm	1.9 in
11	Ground Clearance (SAE J1234)	432.5 mm	17 in
12	Boom Height - Tip of Grouser at SAE 4 ft (1.22 m) Overhang	6361.7 mm	251 in

Standard Equipment

Standard equipment may vary. Consult your Caterpillar dealer for details.

ELECTRICAL

- Alarm, back-up
- Alternator, 70-amp
- Converter, 10-amp/12-volt
- Diagnostic connector
- Horn
- Hour meter
- Integrated front lights
- Odometer
- Starting, 24-volt direct

OPERATOR ENVIRONMENT

- Decelerator pedal and switch
- Engine air cleaner service indicator
- Engine RPM display/gear display
- Foot pegs for slope work
- Gauge cluster, four (fuel, temperatures)
- FTC control for Clutch and Brake steering
- Lockable storage compartment
- Monitoring System, Electronic (EMS III)
- Power points, two 12-volt
- Pre-start coolant level monitoring system
- Product Link ready
- Seat, vinyl suspension, with adjustable armrests
- Seat belt, retractable 76 mm (3 in)
- Storage and literature compartment
- Transmission shift points selection
- Travel speed and gear limiter, electronic

PIPELAYER

- Boom, 5.49 m (18 ft)
- Counterweight, extendible segmented 2980 kg (6,570 lb)
- Hydraulics, pipelayer system

UNDERCARRIAGE

- Adjuster, hydraulic track
- Carrier rollers
- Guards, end track-guiding
- Heavy-duty sealed and lubricated tracks
- Lifetime lubricated track rollers and idlers
- Master link, two pieces
- Sprockets, segmented
- Track frame, 8 rollers
- Track with single grouser track shoes
 - 44-section, 560 mm (22 in)
- Wider tread and taller flange idler profile

POWER TRAIN

- 3126B HEUI Caterpillar diesel engine with:
 - Air-to-air aftercooler
 - Air cleaner, dry-type, with precleaner
 - Air cleaner service indicator
 - Air intake heater
 - Auto-dust ejector with air filter and pre-screener
 - Automatic downshift and kickdown transmission control
 - Coolant, extended life
 - Coolant sampling port
 - Controlled throttle shifting
 - Fan, blower
 - Fuel filters, dual
 - Fuel priming pump
 - Fuel/water separator
 - Load compensated shifting
 - Muffler
 - Radiator, modular
 - (High Performance Perforated Fins IMRM)
 - Selectable shift points
 - Single poly-vee belt with auto belt tensioner
 - Steering system, FTC Clutch and Brake
 - Transmission, three-speed planetary with torque converter

OTHER STANDARD EQUIPMENT

- Altitude operation capability,
 - 4600 meter (15,100 ft) without derating
- Brake system, service, parking, and emergency
- Diagnostic pressure taps, centralized ecology drains
- Extended service intervals (500 hours)
- Front pull device
- Guards:
 - Center track-guiding guards
 - Crankcase, normal service
 - End guide
 - Fuel tank
 - Instrument panel
 - Radiator, hinged
 - Rear
- Hinged engine door, left side
- Implement oil filter
- Keyed lockable enclosures
- Rigid drawbar
- S•O•SSM analysis taps for engine, transmission, and implement fluids
- Transmission remote pressure taps
- Vandalism protection

Optional Equipment (with approximate changes in operating weight)

Optional equipment may vary. Consult your Caterpillar dealer for details.

	kg	lb		kg	lb
Alternator, 70-amp brushless	0.34	0.8	Precleaner with prescreener	5	11
Control, two pedal brake	0	0	Product Link	4	9
Cooling, high ambient	3	7	Rollover, protection system	136	300
Fan, reversible	7	15.5	Starting aids:		
Grid, sandblast	15	33	Heater, engine coolant choice of		
Guide, track MS	70	154	120 or 240-volt (dealer installed)	1	2
Guards:			Heavy-duty batteries	0	0
Crankcase extreme service	63	139	Security system, machine	3	7
Grill, heavy-duty	29	64	Sound suppression, exterior	8.2	18
Precleaner	7	16	Suspension seat, vinyl, low back	10	22
Radiator, heavy-duty, hinged grill	20	44	Tool kit (dealer installed)	7	16
Radiator core protection grid	17	38	Track rollers, high flange	15	33
Rear, heavy-duty	5	11	Track, pair, sealed and lubricated, 44-section:		
Track roller	146	321	610 mm (24 in) MS/HD	96	212
Track roller, LGP	112	247	760 mm (30 in) MS/HD	382	842
Lighting system, four lights	10	23			

For more complete information on Cat products, dealer services,
and industry solutions, visit us on the web at www.CAT.com

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Materials and specifications are subject to change without notice.
Featured machines in photos may include additional equipment.
See your Caterpillar dealer for available options.

AEHQ5550 (7-03)



Cat[®] D5K2

TRACK-TYPE TRACTOR

FEATURES:

- **Cat[®] GRADE with 3D** – New, optional integrated 3D grade control feature with a larger 254 mm (10 in), touchscreen display. Eliminates the need to remove components at the end of day.
- **Cat GRADE with Slope Assist** – Optional grade control feature which helps you more easily achieve the desired blade mainfall and cross slope automatically. Supports AccuGrade™ blade mounted GNSS, laser, or UTS grade control systems.
- **Slope Indicate** – Grade control feature provides you slope of blade in cross slope direction and mainfall (fore/aft) direction without having to estimate.
- **Stable Blade** – Blade control feature helps you obtain a finish grade with less operator effort.
- **Automatic Traction Control** – Traction control feature automatically reduces track slip without having to lift blade providing improved productivity and reduced undercarriage wear for lower operating costs.
- **Eco Mode** – Engine throttle settings reduce fuel consumption up to 20% to save you more money, without sacrificing performance.
- **Heated and Ventilated Seat** – Experience a new level of comfort in all climates with the new optional heated and ventilated air suspension seat.
- **Power Pitch Blade** – This option lets the operator easily adjust the blade pitch to optimize productivity.
- **Engine** – Cat C4.4 ACERT™ diesel engine meets U.S. EPA Tier 4 Final/ EU Stage IV/Japan 2014 (Tier 4 Final) emission standards.
- **Heated, Seat-Mounted Controls** – Heated joysticks (optional) offer even greater comfort in cold climates.
- **Undercarriage** – Choice of undercarriage to give you the lowest costs per hour. Select either the standard sealed and lubricated track (SALT) undercarriage or the innovative SystemOne™ undercarriage.

Specifications

Engine

Engine Model	Cat C4.4 ACERT	
Rated Net Power @ 2,200 rpm		
SAE J1349	77.6 kW	104 hp
ISO 9249/EEC 80/1269	77.6 kW	104 hp
Bore	105 mm	4.13 in
Stroke	127 mm	5 in
Displacement	4.4 L	269 in ³

- Engine meets Tier 4 Final/StageIV/Japan 2014 (Tier 4 Final) emission standards.

Weights

Operating Weight – XL	9214 kg	20,313 lb
Operating Weight – LGP	9522 kg	20,992 lb
Operating Weight – LGP, 762 mm/30 in	9726 kg	21,442 lb

- Specifications shown are for machine equipped with dozer blade, canopy ROPS, back-up alarm, operator, coolant, lubricants and full fuel tank.
- Enclosed cab adds 225 kg (495 lb).

Cab

Sound Levels:	
ISO 6396:2008	79 dB(A)
SAE J1166 FEB2008	79 dB(A)
ROPS	ISO 6396:2008
FOPS	ISO 3449:2005 Level II

Transmission

Drive Pumps	1	
Track Motors	2	
Relief Valve Settings	48 500 kPa	7,033 psi
Maximum Travel Speed – Forward	9 km/h	5.6 mph
Maximum Travel Speed – Reverse	10 km/h	6.2 mph

Winch

Weight	610 kg	1,345 lb
Winch Drive	Hydrostatic	
Control	Hydraulic	
Speed	Variable	
Winch Length	705 mm	27.76 in
Overall Width	741 mm	29.2 in
Drum Diameter	254 mm	10 in
Drum Width	274 mm	10.8 in
Throat Clearance	171.5 mm	6.75 in
Rope Diameter – recommended	16 mm	0.63 in
Rope Diameter – optional	19 mm	0.75 in
Drum Capacity – recommended cable	113 m	371 ft
Drum Capacity – optional cable	78 m	256 ft
Maximum Line Pull – bare drum	18 144 kg	40,000 lb
Maximum Line Pull – full drum	11 340 kg	25,000 lb
Maximum Line Speed – bare drum	40 m/min	131 ft/min
Maximum Line Speed – full drum	63 m/min	207 ft/min



Undercarriage

Number of Rollers (each side)	7	
Number of Shoes (each side) – Sealed and Lubricated Track (SALT) Undercarriage	40	
Number of Shoes (each side) – SystemOne Undercarriage	36	
Shoe Width – XL	510 mm	20 in
Shoe Width – LGP	660 mm	26 in
Shoe Width – LGP, 762 mm (30 in)	762 mm	30 in
Length of Track on Ground – XL	2310 mm	91 in
Length of Track on Ground – LGP	2310 mm	91 in
Length of Track on Ground – LGP, 762 mm (30 in)	2310 mm	91 in
Track Gauge – XL	1600 mm	63 in
Track Gauge – LGP	1750 mm	69 in
Track Gauge – LGP, 762 mm (30 in)	1860 mm	73.2 in
Ground Contact Area – XL	23 562 cm ²	3,652 in ²
Ground Contact Area – LGP	30 492 cm ²	4,726 in ²
Ground Contact Area – LGP, 762 mm (30 in)	35 574 cm ²	5,514 in ²
Ground Pressure – XL	38.6 kPa	5.6 psi
Ground Pressure – LGP	31.1 kPa	4.5 psi
Ground Pressure – LGP, 762 mm (30 in)	27.1 kPa	3.93 psi

Service Refill Capacities

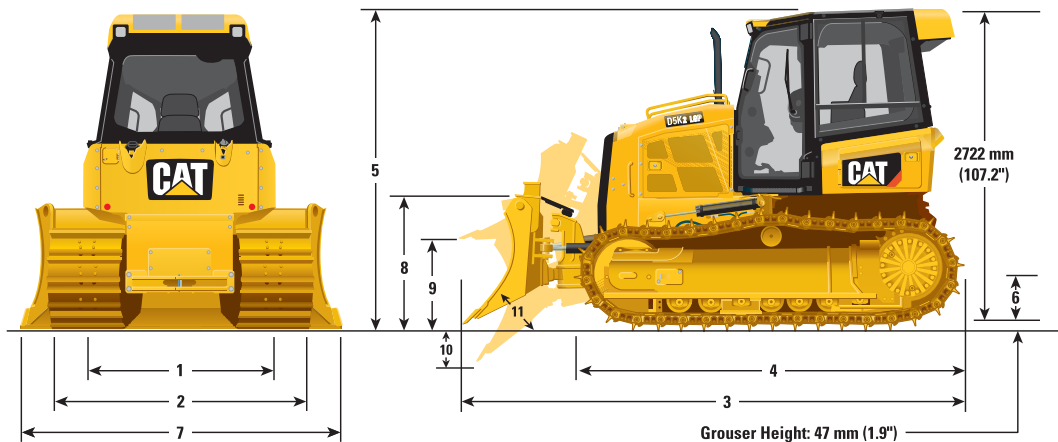
Fuel Tank	195 L	51.5 gal
Crankcase and Filter	11 L	2.91 gal
Final Drives, XL (each side)	10 L	2.6 gal
Final Drives, LGP (each side)	10 L	2.6 gal
Cooling System	22.4 L	5.92 gal
Transmission/Hydraulic Tank	59.5 L	15.7 gal
Diesel Exhaust Fluid (DEF) Tank	19 L	4.9 gal

Hydraulic Controls

Pump Output	68.0 L/min	17.7 gal/min
Relief Valve Settings	20 600 kPa	2,988 psi

Ripper

Type	Parallelogram	
Number of Shanks	3	
Maximum Digging Depth	337.5 mm	13.3 in
Maximum Reach at Ground Line	555 mm	21.9 in
Maximum Ground Clearance Under Tip	448 mm	17.6 in
Overall Width	1710 mm	67.3 in
Height	165 mm	6.5 in
Weight	554 kg	1,222 lb



Dimensions

	XL		LGP		LGP, 770 mm (30 in) shoes	
1 Track Gauge	1600 mm	63 in	1750 mm	68.9 in	1860 mm	73.2 in
2 Width of Tractor (standard shoes, no blade)	2110 mm	83.1 in	2410 mm	94.9 in	2630 mm	103.5 in
3 Overall Length (with blade)	4309 mm	170.1 in	4309 mm	169.1 in	4309 mm	169.1 in
4 Length of Basic Tractor (without blade)	3265 mm	128.5 in	3265 mm	128.5 in	3265 mm	128.5 in
5 Tractor Height	2769 mm	109 in	2769 mm	109 in	2769 mm	109 in
6 Ground Clearance	332 mm	13 in	332 mm	13 in	332 mm	13 in
BLADE	XL		Intermediate		LGP	
7 Blade Width	2782 mm	109.5 in	2921 mm	115 in	3220 mm	126.7 in
8 Blade Height	1073 mm	42.2 in	1010 mm	39.8 in	1010 mm	39.8 in
9 Blade Lift Height	767 mm	30.2 in	767 mm	30.2 in	767 mm	30.2 in
10 Digging Depth	586 mm	23.1 in	572 mm	22.5 in	572 mm	22.5 in
11 Blade Cutting Edge Angle, Adjustable	52° to 58°		52° to 58°		52° to 58°	
Maximum Tilt	402 mm	15.8 in	448 mm	17.6 in	448 mm	17.6 in
Maximum Angle (either side)	25°		25°		25°	
Blade Width at Maximum Angle	2636 mm	103.8 in	2669 mm	105.1 in	2940 mm	115.8 in
Blade Capacity (SAE)	2.19 m ³	2.86 yd ³	2.09 m ³	2.73 yd ³	2.34 m ³	3.06 yd ³

STANDARD EQUIPMENT

ELECTRICAL

- Alternator, 12 volt, 120 Amp, heavy duty brushless
- Alarm, backup
- Batteries (2), heavy duty, maintenance free, 2,000 CCA
- Diagnostic connector
- Horn, electric
- Lights, halogen, 2 front and 2 rear
- Starter, electric, 12 volt

OPERATOR STATION

- ROPS/FOPS canopy
- Seat, air suspended, cloth or vinyl
- Seatbelt, retractable 76 mm (3 in)
- Foot pads, dash
- Electronic Monitoring System with:
 - Gauges for engine coolant temperature, hydraulic oil temperature and fuel level
 - Travel speed limiter, electronic
 - Engine RPM and gear display
 - Hour meter, electric
 - Engine air cleaner service indicator, electronic
 - Water-in-fuel indicator, electronic
- Slope Indicate
- Throttle switch, rotary
- Eco mode
- Controls, seat mounted, fore/aft adjustment
- Armrests, adjustable
- Mirror, rearview, inside
- Single pedal combining deceleration and braking functions
- Independent forward/reverse speed settings
- Power port, 12 volt
- Coat hook
- Storage compartment
- Cup holder
- Floor mat, rubber, heavy duty

HYDRAULICS

- Hydraulics, 3 valve
- Load sensing hydraulics
- Single lever, three function control
- Hydraulic pump and oil
- Stable blade control

POWER TRAIN

- Cat C4.4 ACERT diesel engine, turbocharged, Tier 4 Final/Stage IV/Japan 2014 (Tier 4 Final) certified with aftertreatment
- Aftercooler, Air-to-Air (ATAAC)
- Aluminum bar plate cooling system (radiator, power train)
- Air cleaner with precleaner, automatic dust ejection and under-hood intake
- Dual path, closed-loop hydrostatic transmission
- Electric fuel priming pump
- Fuel/water separator
- Automatic Traction Control

UNDERCARRIAGE

- SALT Undercarriage
- 7 roller track frame
- Track rollers, lifetime lubricated
- Carrier rollers
- Track adjusters, hydraulic
- Guards, front/rear guiding
- Master link

OTHER STANDARD EQUIPMENT

- Cat Product Link™ PLE732 Satellite/PLE742 Cellular
- C-Frame, VPAT, hydraulic cylinders and lines
- Lockable engine enclosures
- Front pull device
- Rigid drawbar
- Ecology drains (engine, power train and implement oil and engine coolant)
- Scheduled oil sampling ports (engine, power train implement oil)
- Vandalism protection
- Heavy duty crankcase guard

ANTIFREEZE

- Extended life coolant, -37° C (-35° F)

D5K2 Track-Type Tractor

OPTIONAL EQUIPMENT

ELECTRICAL

- Integrated four front halogen lights, two rear halogen lights

POWER TRAIN

- Drive, auxiliary
- Installation, winch

UNDERCARRIAGE

- Track Pairs, XL:
 - Track, 510 mm (20 in) MS SystemOne
- Track Pairs, LGP:
 - Track, 660 mm (26 in) MS SystemOne
 - Track, 762 mm (30 in) MS SystemOne

OPERATOR STATION

- Cab with air conditioning*
- Cab, polycarbonate windows and air conditioning*
- Seat, air suspension, choice of:
 - Vinyl, heated seat with heated controls
 - Cloth, heated seat with heated controls
 - Cloth, heated and ventilated seat with heated controls
- Radio, AM/FM, Bluetooth
- Sound suppression

HYDRAULICS

- Hydraulics, 4 valve for use with ripper
- Hydraulics, 4 valve for use with winch

GUARDS

- Guard, rear, heavy duty
- Grill, radiator, heavy duty
- Guard, track guiding, center
- Guard, track roller, full length
- Screen, rear, cab
- Screen, side, cab
- Screen, rear, canopy
- Screen, front and doors, canopy
- Sweeps, front
- Sweeps, rear

BLADES

- VPAT XL blade
- VPAT LGP blade
- VPAT Intermediate blade

REAR ATTACHMENTS

- Drawbar, towing
- Mounting, winch
- Ripper, parallelogram, includes three shanks and teeth

REAR ATTACHMENT CONTROL

- Control, ripper
- Control, winch
- Control, ripper and winch

MACHINE CONTROL AND GUIDANCE

- Cat GRADE with 3D
- Cat GRADE with Slope Assist
- Power Pitch blade control

STARTING AIDS

- Heater, engine, coolant, 120 volt
- Starting aid, ether

OTHER ATTACHMENTS

- Machine Security System

ANTIFREEZE

- Extended life coolant, -50° C (-58° F)

FIELD INSTALLED ATTACHMENT

- Winch, hydraulic, high performance, 40 m/min (131 ft/min) line speed
- Winch, hydraulic retrieval, 15 m/min (50 ft/min) line speed

*Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.6 kg of refrigerant which has a CO₂ equivalent of 2.288 metric tonnes.

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EB-2019-0007
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AEHQ7400-02 (10-2018)
Replaces AEHQ7400-01
(N Am, EU)



APPENDIX 2 SPECIFIC CONTINGENCY PLANS: FIRE – PIPELINE

TITLE **Imperial Facility - Emergency Response Plan**
SECTION 08: Specific Contingency Plans
SUBJECT 29: Fire - Pipeline

SUMMARY

As no two emergency response situations are the same, responders must only take response action steps after first going through a good analytical and decision process. Therefore, the use of the "Disciplined Approach" (ERP-04-05: General Response Procedures: Disciplined Approach to Emergency Response), either reviewed mentally or on paper, **must** occur prior to proceeding with any action step described in this Contingency Plan.

The following response checklist details steps to be taken in the event of a fire following a release from an underground pipeline. This same Contingency Plan applies whether or not the fire involves "Low Vapour Pressure" (LVP) or "High Vapour Pressure" (HVP) products pipelines or, if the fire was ignited on purpose, as part of the spill release response strategy. Not all steps are appropriate for all incidents, however steps listed are made as comprehensive as possible to ensure necessary steps are not potentially missed. Beyond the first several steps, the order of activity can be adjusted, as may be necessary.

Use the first column to specify whether or not the activity was needed when filling out the following checklist.

RESPONSIBILITY

It is the responsibility of the Imperial Incident Commander (usually the Facility Manger / delegate) to ensure appropriate actions are taken, response activities are sustained and, if required, the response level is escalated, per ERP-04-06: General Response Procedures: Response Escalation Procedures. This ER Contingency Plan checklist was designed to help manage the situation and document the emergency response activities.

SECTION 08.29: Specific Contingency Plans
 Fire - Pipeline

Incident : _____ Facility: _____ Date : _____

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	1	When alerted (by Houston Operations Control Center -OCC or Others), ensure activation of the appropriate Facility fire alarm systems and the Facility (ESDs) emergency shutdown devices (locations in ERP-09-09). Ensure that all product movements are stopped. Initiate having appropriate pipeline valves closed to isolate fire to the pipeline section affected by the Fire.		
	2	Advise any people (workers or public) present in the area at risk to leave the area and direct them upwind to a safe location.		
	3	Request assistance from Public Responders, if not already there. Call the local Police and Fire Dept. Services (ERP-09-04: Appendices: Facility Specific «Contacts Lists»)		
	4	Advise the OCC (ERP: «Support and Business Management Contacts Lists») of the situation and provide them with details on the location, product, fire size/area, immediate hazards and wind direction. Ensure all pipelines affected are shut down.		
	5	Ensure the Facility Safe Work Plan (ERP-04-04: General Response Procedures: Safe Work Plan) is adequate.		
	6	Check that the affected pipeline section has been isolated by ensuring appropriate block valves are manually closed, if they did not close initially and only if safe to do so.		
	7	Directly contact TOU emergency number (1-866-232-9563) and ask for one of the Imperial Oil Refinery Fire Marshals for petroleum fire-fighting advice during the event, in conjunction with the local Fire Dept. Services		
	8	Advise Fire Dept Services to spray foam (hydrocarbon compatible foam such as AFFF or AFFF/ATC for alcohol type concentrate).		
	9	Get Support, if required and Notify Imperial (CFO) Business Management (ERP: «Support and Business Management Contacts Lists»).		

SECTION 08.29:

Specific Contingency Plans
 Fire - Pipeline

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	10	Notify IOL Public Affairs (<u>ERP-06-02: Emergency Response Contacts and Resources: Other Imperial Emergency Response Resources</u>), if large amounts of smoke are produced by the fire.		
	11	<p>If there is a resulting leak or spill, report leak or spill, per reporting criteria, per jurisdiction and phone numbers found in Table 1, 2 and 3 <u>PDM 1-09-07: Incident Reporting: Reporting OI Incidents</u>. Other useful numbers can be found in ERP-06-03, or, in ERP-09-04 for Local Authorities:</p> <p>Government Agency: _____ Person contacted: _____</p> <p>Government Agency: _____ Person contacted: _____</p> <p>Government Agency: _____ Person contacted: _____</p>		
	12	Establish a Unified Command structure with Public Authorities, per ERP-01-05, ERP-02-01 and ERP-04-02, if not already done.		
	13	<p>Use the "Disciplined Approach" (ERP-04-05) and consider the best firefighting tactics, in consultation with one of the Refinery Fire Marshals, your local municipal Fire Dept Services and Imperial (CFO) Business Management:</p> <ul style="list-style-type: none"> • Use defensive approach only, i.e. cool adjacent facilities • Develop an offensive approach with foam in order to extinguish the fire, or • Let burn and protect area/Site's neighbourhood. 		
	14	Monitor, develop and implement a plan to control the water used to fight the fire and to control the oily water residues.		
	15	Consider building a dam with sand inside or around the Site to control and direct any excess firefighting waters and oily waters in the most desirable direction.		

SECTION 08.29: Specific Contingency Plans
 Fire - Pipeline

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	16	If spill and/or oily water overflows goes off-site or off right-of-way, take applicable actions to mitigate potential off-site impacts covered in <u>ERP-09-10: Appendices: Facility Specific «Surrounding Area Contingency Plan»</u> .		
	17	Notify city Public Works (see ERP-09-04), if required. Person contacted: _____		
	18	Call Land Spill ER Contractor (see ERP-09-04) and have them dispatch vacuum truck to start their recovery of contaminated liquid, when safe to do so.		
	19	Proceed to clean up using absorbent material, remove any contaminated soil and dispose of it according to applicable legislation. Refer to <u>PDM 1-10-03: Environmental and Waste Management: Waste Disposal</u> and your Regulatory Advisor (<u>ERP: «Support and Business Management Contacts Lists»</u>) for proper Waste Management.		
	20	Ensure a Plan is determined for appropriate recovery of the affected environment, if any, through Imperial (CFO) Business management. This is normally assigned to company specialists to perform (per ERP-07-01).		
	21	Decontaminate equipment and clothing, if applicable.		
	22	Resume normal operations when situation is re-assessed and only when all potential risks have been eliminated.		
	23	Conduct debriefing with Responders and on-site personnel prior to demobilization and document, per PDM 1-15-04.		



APPENDIX 3 SPECIFIC CONTINGENCY PLANS: SPILL - LOW VAPOUR PRESSURE PIPELINE

SPILL - LOW VAPOUR PRESSURE PIPELINE

PURPOSE AND SCOPE

REFERENCE

-

EQUIPMENT

-

PPE

-

Incident	
Facility	
Date	

NOTE

It is the responsibility of the Imperial Incident Commander (usually the Facility Manager / delegate) to ensure appropriate actions are taken, response activities are sustained and, if required, the response level is escalated, per ERP-04-06: General Response Procedures: Response Escalation Procedures. This ER Contingency Plan checklist was designed to help manage the situation and document the emergency response activities.

NOTE

As no two emergency response situations are the same, responders must only take response action steps after first going through a good analytical and decision process. Therefore, the use of the "Disciplined Approach" (ERP-04-05: General Response Procedures: Disciplined Approach to Emergency Response), either reviewed mentally or on paper, must occur prior to proceeding with any action step described in this Contingency Plan.

NOTE

The following response checklist details steps to be taken in the event of a spill involving an underground low vapour pressure pipeline. This same Contingency Plan applies both to when; spilled product volume is all confined to the pipeline right-of-way or, in cases when some of the spill volume manages to migrate off the pipeline right-of-way. Not all steps are appropriate for all incidents, however steps listed are made as comprehensive as possible to ensure necessary steps are not potentially missed. Beyond the first several steps, the order of activity can be adjusted, as may be necessary.

Use the first column to specify whether or not the activity was needed when filling out the following checklist.

1 Spill - Low Vapour Pressure Pipeline				
	Status (✓ or N/A)	Activity	Notes	Initials / Time
1		When alerted (by Houston Operations Control Center or Others), ensure activation of Facility (ESDs) emergency shut down devices (locations in ERP-09-09) and that all product movement is stopped.		
2		Advise any people (workers or public) present in the area at risk to leave the area and direct them to a safe location.		
3		Eliminate ignition sources and secure immediate areas that contain vapours or product. Restrict any vehicle access to these hazardous vapour areas.		
4		Advise the Houston Operations Control Center (ERP: «Business Management Contacts List») of the situation and provide them with details on the location, product, size and immediate hazards. Ensure all pipelines are shut down.		
5		If safe to do so , Isolate the leaking pipeline section by ensuring the appropriate main valves are closed.		

1 Spill - Low Vapour Pressure Pipeline				
	Status (✓ or N/A)	Activity	Notes	Initials / Time
6		<p>Assess the situation using the "Disciplined Approach":</p> <ol style="list-style-type: none"> 1. Evaluate the extent of the spill 2. Determine the need to notify all/or other operations in the same corridor, if applicable. 3. Determine if the area surrounding the Facility should be evacuated. If so, activate the evacuation plan (ERP-08-06: Specific Contingency Plans: Facility Evacuation Plan) 4. Determine the need to call the Facility ER Team (ERP-09-04: Appendices: Facility Specific «Contacts Lists») 5. Evaluate the need for Municipal ER support. If required, call and request local Police for Safety Perimeter Control, Fire Services for vapour dispersion or suppression and fire prevention, and Public Works (ERP-09-04) 6. Decide on the action plan. <p>Get Support, if required and Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»).</p>		
7		Evaluate effectiveness of the safety perimeter, using air-monitoring equipment (Lower Explosion Limit), if applicable. Identify any potential downwind exposures (i.e. flammable vapour cloud, liquid product movement, etc.). If necessary, utilize Police for any further remaining evacuations.		
8		Ensure a Safe Work Plan is in place (ERP-04-04: General Response Procedures: Safe Work Plan)		
9		Locate and contain the source of leak/spill and control surface impact. Stop source flow if required and if safe to do so.		
10		Evaluate extent of product/vapour migration. Check all nearby storm and sanitary sewers, rivers and streams, and any near-by buildings or structures that may be affected.		

NOTE

Continue following steps if the spill has migrated to public or third party premises. If not, go directly to Step 16.

11		Establish a Unified Command structure with Public Authorities as per ERP-01-05, ERP-02-01 and ERP-04-02, if not already done.		
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1 Spill - Low Vapour Pressure Pipeline				
	Status (✓ or N/A)	Activity	Notes	Initials / Time
12		Notify IOL Public Affairs (ERP-06-02: Emergency Response Contacts and Resources: Other Imperial Emergency Response Resources).		
13		<p>Assess situation using the "Disciplined Approach". If help is required, consult with your Imperial (CFO) Business Management and/or ER support and evaluate the extent of the response and resources required by determining;</p> <ol style="list-style-type: none"> 1. Did spill/leak go into any city sewer systems (sanitary, rainwater or sanitary)? 2. Is spill/leak going into a ditch or a watercourse (creek, lake or river)? Refer to the nearest Control Point to evaluate recovery operations and containment (see ERP-09-10: Appendices: Facility Specific «Surrounding Area Contingency Plan») 3. Are vapours present in nearby businesses/residences? 4. Did the spilled material reach the water table? 5. Any drinking water wells within 1 km of the spill source? 6. What response resources do you have? 7. Decide on the action plan. 		

1 Spill - Low Vapour Pressure Pipeline				
	Status (✓ or N/A)	Activity	Notes	Initials / Time
14		<p>Did hydrocarbon go into a city sewer system? If yes:</p> <ol style="list-style-type: none"> 1. Contact City Public Works (ERP-09-04 or dial "0") 2. Obtain sewer plot plan from the City Public Works 3. Determine safety perimeters using monitoring device (i.e. like LEL meters) in co-operation with City Public Works 4. Have installed appropriate number of chimneys or explosion-proof fans at street manholes to discharge the vapours 5. Verify if gasoline vapours are present in nearby residences and if so, request Police /Fire Dept to evacuate those residents 6. Identify / Ensure no sources of ignition 7. Block sewers downstream. Recover product with a vacuum truck and have sewer systems flushed starting upstream. <p>If distillate, use the same steps even though there are much lesser risks associated with this type of product.</p>		
15		<p>Did petroleum product reach the water table? If yes:</p> <ol style="list-style-type: none"> 1. Involve a company Environmental Specialist 2. Determine the perimeter by taking water samples and getting them analyzed using the services of a professional firm 3. Provide alternate source of drinking water to affected residents 4. Transfer the follow-up activities with help from the Imperial (CFO) Business Management involved. 		

1 Spill - Low Vapour Pressure Pipeline				
	Status (✓ or N/A)	Activity	Notes	Initials / Time
16		<p>Is hydrocarbon present in a ditch, stream or river? If yes:</p> <ol style="list-style-type: none"> 1. Remove all sources of ignition 2. If crude, check for H2S 3. Disperse the vapours with water fog 4. Ask the Fire Dept Services to spray a blanket of hydrocarbon compatible foam, if hydrocarbon trapped and is felt appropriate 5. Recover product with a vacuum truck. <p>If distillate:</p> <ol style="list-style-type: none"> 1. Remove all sources of ignition 2. Contain using a dam, boom or other means 3. Recover with a vacuum truck. 		
17		Refer to ERP-04-03: General Response Procedures: Response Principles and Key Tactics of this Plan for general product behaviors and response tactics.		
18		Advise Fire Services to spray foam (hydrocarbon compatible foam such as AFFF or AFFF/ATC for alcohol type concentrate). If needed.		
19		Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»), if not already done.		

1 Spill - Low Vapour Pressure Pipeline				
	Status (✓ or N/A)	Activity	Notes	Initials / Time
20		Report leak or spill, per reporting criteria, per jurisdiction and phone numbers found in Table 1, 2 and 3 of PDM 1-09-07: Incident Reporting: Reporting OI Incidents.	<p>Other useful numbers can be found in ERP-06-03, or, in ERP-09-04 for Local Authorities:</p> <p>Government Agency: _____</p> <p>Person contacted: _____</p> <p>Government Agency: _____</p> <p>Person contacted: _____</p> <p>Government Agency: _____</p> <p>Person contacted: _____</p> <p>Government Agency: _____</p> <p>Person contacted: _____</p> <p>Government Agency: _____</p> <p>Person contacted: _____</p>	
21		Determine the potential for additional releases, if safe to do so.		
22		Use absorbents and/or other methods to contain the spilled product at the spill area(s).		
23		Re-evaluate safety perimeter, using air monitoring equipment (such as LEL) and permit vehicle traffic only if appropriate.		
24		Recover visible product in affected area(s), using appropriate transfer equipment or vacuum truck and use established safe operating procedures.		

1 Spill - Low Vapour Pressure Pipeline				
	Status (✓ or N/A)	Activity	Notes	Initials / Time
25		Proceed to clean up using absorbent material, remove contaminated soil and dispose of it according to legislation, if applicable. Refer to PDM 1-10-03: Environmental and Waste Management: Waste Disposal and your Regulatory Advisor (ERP: «Business Management Contacts List») for proper Waste Management.		
26		Ensure a Plan is determined for appropriate recovery of the affected environment, if any, through Imperial (CFO) Business management. This is normally assigned to company specialists to perform (per ERP-07-01).		
27		Decontaminate equipment and clothing, if applicable.		
28		Resume normal operations when situation is re-assessed and only when all potential risks have been eliminated.		
29		Conduct debriefing with Responders and on-site personnel prior to demobilization and document, per PDM 1-15-04.		

APPENDIX 4 SITE SPECIFIC EMERGENCY RESPONSE PLANS

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TITLE	Imperial Facility - Emergency Response Plan
SECTION 01:	Introduction
SUBJECT 01:	Scope of the Plan

SUMMARY

This Emergency Response Plan (ERP) details specific contingency plans for potential CFO operational risk scenarios that could impact this Facility type, based on the consideration of "the worst probable emergencies that could realistically happen". The risks considered, and the process to update these risk assessments, are outlined in PDM 01-15-02: Emergency Response: Facility Emergency Response Plan. This ERP is designed to include detailed response steps for [releases](#), fires, natural disasters or security type incidents. ERP-08 sections detail the potential risk scenarios considered for which applicable generic ERP contingency plans were developed. In addition, Facility specific information is contained in the ERP Section 09 (Appendices). This ERP also details applicable company policies, plan integration with other stakeholders, escalation of management response resources beyond Facility capabilities, general response procedures, roles and responsibilities, emergency response contacts and resources, as well as team preparedness.

This ERP does not cover detailed specific safe "Standard Operating Procedures" (SOPs) that hands-on Responders must follow when responding to an emergency. Rather, it lists all potential steps to be considered in order to ensure that an important step is not missed. [Sites will adapt the plans to meet site-specific needs](#). SOP skills, appropriate for Facility Team member requirements, are learned in responder training, as defined in Section ERP-07: Team Preparedness.

PURPOSE

The purpose of this ER plan is to prepare for an efficient and effective response to any incident and to achieve:

- immediate notification within the company to assure that an appropriate response is initiated,
- compliance to the notification requirements to regulatory agencies,
- the earliest possible response to an emergency event using available company or contracted resources,
- the earliest possible liaison with municipal and regulatory authorities at the [release](#) site and a mechanism to work in a coordinated manner with these groups.

SECTION 01.01: Introduction
Scope of the Plan

PRODUCTS

Most Facilities handle petroleum products *in bulk* and / or in *package goods*. For specific Facility information see ERP-09-02: Facility Specific «Scope of the Plan».

"FOR IMPERIAL OIL USE ONLY" CONTENT

No information contained within this ERP can be reproduced without the written consent of Imperial Oil.

The Facility Manager owns this ERP. Copies of it are given out to external organizations/stakeholders with the objective of sharing it with them to continuously improve this ERP and to enhance our collective emergency response preparedness efforts within the community.



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 01: Introduction
SUBJECT 02: Declaration

SPECIFIC CANADA SHIPPING ACT, 2001 REQUIREMENTS

The Canada Shipping Act, 2001 requires that a declaration be available onsite that confirms:

- The manner and to whom the facility operator will report [releases](#).
- The existence of an arrangement with a response organization to which a certificate of designation has been issued that is at least equal to the maximum cargo size or ten thousand tons (whichever is less).
- The name of every person who is authorized to implement the arrangement with the certified response organization.

For Facility specific declaration information go to [ERP-09-03: Appendices: Facility Specific «Canada Shipping Act, 2001 requirement for a Declaration»](#)



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 01: Introduction
SUBJECT 03: Company Policies

CORPORATE POLICY

The corporate policy with respect to emergency response is contained in our Environmental Policy. It states:

“We will ...:

- *respond quickly and effectively to incidents resulting from our operations, co-operating with industry organizations and authorized government agencies.”*

AUTHORITY TO RESPOND

The Imperial Incident Commander (ERP-06-01), usually the Facility Manager, has the authority to commit resources to mitigate the impact of any incident involving its Facility.

RELEASE AT DOCK (OIL HANDLING FACILITY - CANADA SHIPPING ACT, 2001)

Response in case of releases attributable to Imperial Oil

For a release at an Imperial Oil Handling Facility, and considered to be caused by it, Imperial will provide the overall incident management and ensure that the response is sustained. As appropriate for the incident and location, this will also include the mobilization of the certified response organization or the Canadian Coast Guard (for responses North of 60) if the incident is beyond the capability of the resources immediately available.

The Imperial Incident Commander also has the authority to commit resources on an ongoing basis (beyond 24 hours) for any release that has been caused by the Facility or by an Imperial vessel at the dock. The ongoing response would include continued containment and recovery operations as well as remediation activities.

Response in case of releases not attributable to Imperial Oil

For releases not attributable to Imperial Oil, the Imperial Incident Commander has the authority to commit resources for the initial response. This includes:

- the initial control and containment activities,
- the initial recovery activities, and
- the initial mobilization of the response organization, as needed for the size of the incident.

SECTION 01.03: Introduction
Company Policies

In addition, an ongoing effort must be made to transition the management of the response to the Responsible Party (RP). If the RP is unable or unwilling to assume management of the incident, then, the management of the response activities should be transitioned to the Canadian Coast Guard (CCG).

Until the management of the [release](#) response is transitioned to another party, Imperial would ensure that the operational response is sustained. Through discussions with the RP and with the CCG regarding transition, Imperial would ensure that the RP and CCG are informed of all activities undertaken or proposed to be taken by Imperial or its delegates on behalf of the RP. Following the transition, Imperial could (as a contractor to the RP or CCG) participate in the ongoing response activities with its equipment. As appropriate for the incident, Imperial would also participate in the planning of any remediation activities that are necessary for the restoration of its Facility. If the RP or CCG are both unwilling to assume management of the response and the response must be ongoing (beyond 24 hours) to remediate the impacts of the incident, then, through the Imperial Business Management contacts (see [ERP- Support and Business Management Contacts Lists](#) - internal access only), the Crisis Management Team should be consulted for guidance and authority.

THIRD PARTY REQUESTS FOR ASSISTANCE

Imperial Oil will normally respond to a request for emergency assistance when our help will reduce the risk to human life and property and does not put our employees at undue risk. However, the party requesting assistance should endeavor to replace our employees and equipment as quickly as possible with their own employees or contractors. Our employees would leave the site of incident only after their replacements are in a position to effectively handle the incident. The requester for assistance should be asked to formally document said request by fax, electronic mail, or letter and agree to indemnify Imperial Oil for all reasonable costs, expenses, and losses, and against all third party claims arising out of our actions, whether negligent or not. The form "Undertaking Regarding Liability and Indemnification" ([ERP01F01](#)) shall be signed by the requester before any field activities are undertaken on behalf of a third party. It is not necessary to have this form signed if there is a prior agreement, such as a mutual aid agreement, or a clause in a contract between Imperial and the requesting party. The decision to provide assistance to third parties must be reviewed and authorized by a representative of the Imperial Business Management (see [ERP- Support and Business Management Contacts Lists](#) - internal access only) with the appropriate authority level as defined in the DOAG: General Use Schedule number 8: Emergency Response Assistance to third parties.

PERSONAL LIABILITY

There is an existing Imperial Oil policy, which indemnifies employees against acts or omissions provided they are not causing willful damage.

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TITLE **Imperial Facility - Emergency Response Plan**
SECTION 01: Introduction
SUBJECT 04: Responsibilities of the Facility Emergency Response Team

SUMMARY

The Facility Emergency Response Team is responsible for effective and efficient management of responses, following Imperial's established principles and policies, to all Imperial Oil incidents originating within the Facility operations.

Policy development is a corporate responsibility but interpretation of these policies is the responsibility of the Imperial Business Management ([Canada Fuels Operations](#)).

FACILITY EMERGENCY RESPONSE TEAM MEMBERS

The Facility Emergency Response Team is composed of:

- Members of the Facility Workforce.
- Facility Emergency Response Contractors.
- Facility Emergency Response Support and Imperial Business Management ([Canada Fuels Operations](#)).

The Facility Workforce based at the Facility is responsible to support the team by:

- Participating in communication (pager, simulation) tests.
- Participating in team meetings and exercises.
- Fulfilling job responsibilities as documented within the Facility ER Plan.
- Identifying and filing competency gaps for their position and that of others they may be called upon to fill on the team.
- Responding to Imperial Oil incidents within the Facility.
- Consulting with the Imperial Business Management ([Canada Fuels Operations](#)) for Company Policies and interpretation.

SECTION 01.04: Introduction
Responsibilities of the Facility Emergency Response Team

Facility Emergency Response Support are responsible for:

- Fulfilling job responsibilities as documented within the plan.
- Assisting in the response, as requested by the Facility Imperial Incident Commander.
- Providing the necessary support to train other members of the Facility ER Team.

Imperial Business Management ([Canada Fuels Operations](#)) is responsible for:

- Interpreting Company Policies.
- Providing all the required resources for an effective and efficient response.



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 01: Introduction
SUBJECT 05: Unified Command

UNIFIED COMMAND

Unified Command is a principle within the Incident Command System that provides for representatives of all key stakeholders to be involved with the overall incident management, but nevertheless provides for one stakeholder to have overall command and control of the response activities. Key stakeholders that may be involved in a unified command include:

- civil authorities, such as elected officials, fire-fighters, police force, etc.,
- elected provincial authorities, provincial emergency organizations, other provincial departments,
- federal authorities as designated under legislation,
- the [Responsible Party](#),
- cargo owners,
- insurers.

INCIDENT MANAGEMENT RESPONSIBILITIES

Depending on the nature of the incident, the command and control position may be assumed by either a civil authority or by the [Responsible Party](#).

- Civil authorities have the responsibility and legislative authority in most circumstances to assume command and control of an incident response for the protection of local residents and communities.
- For marine incidents, the Canada Shipping Act, 2001 provides for the vessel owner or his delegate to assume command and control of the response. The legislation, however, provides for Canadian Coast Guard to assume command and control if the [Responsible Party](#) is not responding effectively.
- For incidents, within the boundaries of a Facility, that are within the control of the Facility Emergency Response Plan, the civil authorities will normally allow the Facility to retain incident management provided there are no significant external impacts. The civil authorities do however have the authority to assume the overall command and control of the response.

SECTION 01.05: Introduction
Unified Command

ADOPTION OF UNIFIED COMMAND BY IMPERIAL OIL

Imperial Oil has adopted both the Incident Command System and the principle of Unified Command. If Imperial Oil is involved in an incident, whether as a [Responsible Party](#), Facility owner, or cargo owner, our lead responder or the Imperial Incident Commander would work towards developing a Unified Command structure. This will ensure that our interests may be appropriately expressed and that the response priorities and strategies are effectively aligned with the risks associated with the products involved.

ADOPTION OF UNIFIED COMMAND BY CIVIL AUTHORITIES

Most Fire Departments, Police Departments and other Civil Authorities are familiar with the principle of Unified Command and with the Incident Command System. Some provinces, such as British Columbia, have formally adopted both Unified Command and the Incident Command System. In responding to an incident where these concepts are practiced, the involvement of Imperial Oil within the Unified Command should be very effective. Unfortunately, not all Civil Authorities are trained in these concepts. In responding to an incident where the authority in charge is not familiar with Unified Command, our Imperial Incident Commander would seek to form a unified command or forum for discussing and agreeing upon response priorities and actions with the other key stakeholders.

ADOPTION OF UNIFIED COMMAND BY THE CANADIAN COAST GUARD

The Canadian Coast Guard has a policy that prevents their participation within a Unified Command where a private company leads the response. In these circumstances, the Coast Guard will appoint a Federal Monitoring Officer (FMO) to oversee the response.

Where Imperial Oil is the Responsible Party, our Imperial Incident Commander would ensure that the Coast Guard FMO is fully informed regarding the response priorities and actions. The FMO should also be formally requested to identify concerns that he may have with the priorities. In the absence of the Coast Guard's formal participation within a Unified Command, it should still be formed with the other key stakeholders. This could include a representative of the Provincial Government and possibly Environment Canada. Environment Canada's participation in the development of response priorities would be formally requested through the Regional Environment Emergency Team (REET).

ADOPTION OF UNIFIED COMMAND BY THE CANADIAN COAST GUARD (CONT'D)

Where Imperial Oil is involved in a marine incident where we are the cargo owner, we would participate in a Unified Command to ensure that our interests were effectively presented and considered by the Incident Commander. The Incident Commander could either be the Responsible Party, his delegate, or a representative of the Government. Coast Guard typically represents government for pollution incidents from marine or unknown source, but in other circumstances, the Incident Commander may be the responsibility of another branch of the Government.

IMPERIAL OIL AS PRODUCT OWNER

Where a significant incident occurs involving our product while in the care and custody of a party to whom we have assigned care and custody of the product, Imperial Oil would seek to become a member of the Unified Command. Imperial Oil would ensure that the response was conducted effectively, impacts on local stakeholders were effectively managed and that our interests were protected. Although participating in the Unified Command, the Imperial Oil representative would not assume the role of the overall Incident Command.

SECTION 01.05: Introduction
Unified Command

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UNDERTAKING REGARDING LIABILITY AND INDEMNIFICATION

GIVEN this _____ of 20 _____

WHEREAS _____

[Name of requesting party] is responding to an incident involving a **release** of a pollutant or an incident involving the imminent risk of a **release** of a pollutant (hereinafter "Emergency Incident" at _____ (describe location).

AND WHEREAS the Requesting Party has requested Imperial Oil (hereinafter "Imperial")

- a) to assist the Requesting Party to remedy the Emergency Incident;
- or
- b) to do things necessary on behalf of the Requesting Party to respond to the Emergency Incident [delete a) or b)] (hereinafter the "Work").

NOW THEREFORE, in consideration of Imperial performing the Work, the Requesting Party agrees as follows:

1. Imperial and its agents, contractors and employees shall perform the Work on behalf of and as agent of the Requesting Party.
2. The Requesting Party shall compensate Imperial, its agents, contractors and employees for their costs and expenses including, but no limited to, equipment costs, salaries, food and lodging forthwith upon receipt of an invoice for these costs and expenses.
3. The Requesting Party shall:
 - a) be liable to Imperial, its agents, contractors and employees for all losses, costs, damages and expenses whatsoever which Imperial, its agents, contractors and employees may suffer, sustain, pay or incur; and, in addition,
 - b) be responsible for and indemnify, protect and hold harmless Imperial, its agents, contractors and employees from and against all losses, damages, injuries, liabilities (including, without limitation, strict and absolute liability), claims, demands, costs, fines, penalties, actions, suits and other proceedings (including commissions and inquiries) and expenses in connection therewith (including counsel fees and expenses) by whosoever brought or presented;

as a result of or in connection with the acts or omissions of any kind of Imperial, its agents, contractors and employees in performing, purporting to perform or failing to perform the Work and whether or not caused by Imperial's, its agents', contractors' or employees' negligence or willful misconduct.

4. The Requesting Party hereby warrants that it has insurance coverage sufficient to cover the terms and conditions of this Agreement and agrees to provide a certified copy of its insurance policy to Imperial upon request.

(Signature for the Requested Party)

(Authority or title of Signatory)

ENGAGEMENT CONCERNANT LA RESPONSABILITÉ ET L'INDEMNISATION

FAIT LE _____ 20_____

ATTENDU QUE _____
[Nom de la partie requérante] (ci-après appelée la « partie requérante ») entend donner suite à un incident comportant un déversement d'un contaminant ou à un incident comportant un risque imminent de déversement d'un contaminant (ci-après appelé « l'incident d'urgence ») à _____
_____ (décrire les lieux).

ET ATTENDU QUE la partie requérante a demandé à la Pétrolière Impériale (ci-après appelée l'« Impériale »)

- a) d'aider la partie requérante à remédier à l'incident d'urgence;
- ou
- b) de prendre toutes les mesures nécessaires pour le compte de la partie requérante liées à la prise en charge de l'intervention en réponse à l'incident d'urgence [supprimer a) ou b)] (ci-après appelé les « travaux »).

PAR CONSÉQUENT, en contrepartie de l'exécution des travaux par l'Impériale, la partie requérante convient de ce qui suit :

1. L'Impériale ainsi que ses mandataires, entrepreneurs et employés doivent exécuter les travaux pour le compte de la partie requérante et à titre de mandataire de cette dernière.
2. La partie requérante doit rembourser à l'Impériale ainsi qu'à ses mandataires, entrepreneurs et employés les coûts et dépenses qu'ils ont engagé, notamment, les frais d'équipements, les salaires de même que les frais de nourritures et d'hébergement, dans les plus brefs délais, sur réception des factures attestant ces coûts et dépenses.
3. La partie requérante, par suite des actes ou des omissions, de quelque nature que ce soit, de l'Impériale ou de ses mandataires, entrepreneurs ou employés, dans le cadre de l'exécution, réelle ou prétendue, des travaux ou par suite du défaut d'exécuter les travaux, que ces actes ou omissions découlent ou non de la négligence ou le la faute délibérée de l'Impériale ou de ses mandataires, entrepreneurs ou employés :
 - a) est redevable envers l'Impériale ainsi que ses mandataires, entrepreneurs et employés des pertes, frais ou dommages-intérêts et autres dépenses, subis, encourus, versés ou engagés par ces personnes quel qu'en soit la nature;
 - b) et doit, de plus, se rendre responsable, indemniser et tenir indemne l'Impériale, ses mandataires, entrepreneurs et employés des pertes, dommages-intérêts, blessures, responsabilités (notamment des infractions de responsabilité stricte et de responsabilité absolue), réclamations, demandes, frais, amendes, pénalités, actions, poursuites et autres instances (notamment les commissions et les enquêtes) intentées ou réclamées par quiconque, ainsi que des frais qui s'y rapportent (y compris les frais, déboursées honoraires des avocats).
4. La partie requérante déclare par les présentes que sa couverture d'assurance est suffisante pour rencontrer les termes et conditions de la présente convention et convient de fournir une copie certifiée conforme de son contrat d'assurance à l'Impériale sur demande.

(Signature de la partie requérante)

(Pouvoir de signature ou titre du signataire)

TITLE **Imperial Facility - Emergency Response Plan**
SECTION 02: Integration
SUBJECT 01: Integration with Governmental Agencies

SUMMARY

The Imperial Incident Commander (initially the Facility Manger/delegate), upon arriving at the scene of the incident, will meet with the Governmental Agencies involved and introduce himself. The Imperial Incident Commander will also seek the Public Authority in charge and offer Imperial's support to respond, ideally in a Unified Command structure (see ERP-01-05 and ERP-04-02).

Furthermore, the Imperial Incident Commander will seek expertise from stakeholders of Governmental Agencies to ensure the most effective and efficient response possible.

PRINCIPLES FOR INTEGRATION WITH GOVERNMENTAL AGENCIES

The overall incident response responsibility resides with the Public Authority in charge. However, Imperial's involvement will be promoted as we have the most knowledge about our facilities and how to handle our products. On the other hand, Governmental Agencies have a greater knowledge in fields like public security, public health, environment and relations with the Media and the Public in general. This is why Imperial is promoting the Unified Command structure.

Imperial's involvement will be most suitable to:

- Provide product properties and identify associated risks
- Recommend countermeasures associated with those risks in order to best protect Life, Property and the Environment
- Recommend best tactics to fight petroleum fires
- Recommend best tactics for vapour dispersion or neutralization
- Initiate product containment and recovery, and
- Organize recovered material disposition and elimination.

RELEASE AT DOCK (OIL HANDLING FACILITY)

Because of the Canada Shipping Act, 2001 there are several things that differ from land [releases](#). We must recognize the combined responsibility of the Incident Command, the environmental support from Regional Environmental Emergency Teams (REET) and, as well, the potential implication of the US Coast Guard, if the incident is on/travels to Canadian / USA adjacent waters.

SECTION 02.01: Integration
 Integration with Governmental Agencies

Responsibility for the Incident Command

Under the Canada Shipping Act, 2001 the response responsibility lies with the Responsible Party (RP) unless the RP is not willing to respond or do not respond to the satisfaction of the Canadian Coast Guard Federal Monitoring Officer. The principles for integration will be the same as above, but under the leadership of the Imperial Incident Commander.

Responsibility of the Regional Environmental Emergency Team (REET)

REET is a multi-agency multi-disciplinary group that may include industry/stakeholders, specializing in navigable waters environmental emergencies and is designed to provide consolidated and coordinated environmental advice, information and assistance to the Incident Commander and the CCG Federal Monitoring Officer. REET members represent several Federal, Provincial and Municipal government departments, aboriginal communities, private sector agencies and individuals.

Potential implication of the US Coast Guard

Canada and the United States have signed several agreements should Pollution Incidents occur in adjacent waters. The overall leadership for the response will depend on the country source of the incident. In these instances, CCG will appoint a Federal on Scene Commander who will liaise with the US Coast Guard and the Canadian Responsible Party should the Pollution event occurred in Canadian waters. Each country will look at its own damages.

RESPONSIBILITY FOR PLAN INTEGRATION

The responsibility for integration of Emergency Response Plans resides with both the Public and Private sectors.

Imperial policy expectation it that the Facility Emergency Response Plan reflects surrounding community's concerns. To this end, the Facility regularly invites stakeholders from Governmental Agencies to visit our facilities and to participate in our emergency response exercises. Changes will be made to the Facility Emergency Response Plan to take into account reasonable requests and community concerns.

Governmental Agencies should also consider the private sector's Emergency Response Plans when establishing their own Plans so that, in the eventuality of a significant emergency, the response will be harmonized.



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 02: Integration
SUBJECT 02: Integration with Business Partners

SUMMARY

Canada Fuels Operations (CFO) have two types of Business Partners, internal and external. Internal Partners are other Imperial Oil company Business Units. External Partners are external businesses with whom CFO have contractual arrangements to use this External Partner's facilities.

CFO have agreements with Internal Partners whereby, when their operation is located on a CFO Facility, CFO would provide emergency response capability during the emergency phase of the incident. Likewise, CFO operates some Facilities adjacent to an Imperial Refinery (refinery connect terminal) where the Refinery will provide the response for a large incident that could impact on the Refinery.

CFO also have External Business Partners, where CFO have facilities on other's private property, such as ship unloading facilities on private docks. Therefore, it becomes very important that both their response management aspects and Emergency Response Plans be integrated.

PRINCIPLES FOR INTEGRATION WITH INTERNAL BUSINESS PARTNERS

CFO will integrate with its Internal Business Partners using the principles of Unified Command structure (see ERP-01-05 and ERP-04-02).

PRINCIPLES FOR INTEGRATION WITH EXTERNAL BUSINESS PARTNERS

Where part or all of the CFO Facility is located on a third Party's property (a third party Dock as an example), the Imperial Incident Commander will always consult and seek approval on response actions which might affect this Partner. However, both parties will be subject to the decisions of the Public Authority in charge (see ERP-04-02, if applicable).

RESPONSIBILITY FOR PLAN INTEGRATION WITH INTERNAL BUSINESS PARTNERS

Each Business Unit partner has the primary responsibility to ensure that they have emergency response plans and resources that adequately address the potential incident scenarios that supports the risks being managed in their own operations and as identified during their risk analysis.

The CFO Facility ER Plan addresses these specific issues (see ERP-04-02).

SECTION 02.02: Integration
 Integration with Business Partners

RESPONSIBILITY FOR PLAN INTEGRATION WITH EXTERNAL BUSINESS PARTNERS

Where part or all of the CFO Facility is on third Party's private property, the Facility Manager will communicate the appropriate sections of its Facility Emergency Response Plan to this third Party. Reference shall be made in the Facility ER Plan as to how the CFO Facility resources will interact with the External Business Partner involved. The CFO Facility Manager will encourage its External Business Partners to recognize and reflect in their Emergency Response Plans the requirements of that Imperial Facility.

An optimum situation would be to both have integrated ER Plans covering incidents involving an Imperial Facility, on an External Business Partner's property.



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 02: Integration
SUBJECT 03: Integration with the NARRT Emergency Response Team

SUMMARY

Facility Emergency Response Teams have base level ER capability that supports the risks being managed in their operations. The Facility does have response arrangements with local ER Contractors. However, where a larger incident could demand prolonged management response capabilities, Imperial [in conjunction with ExxonMobil a response organization](#) capable of providing adequate resources to sustain that response. The [North American Regional Response Team \(NARRT\) and Strike Teams have been put in place to provide the resources required](#). Once activated, the [NARRT/Strike Response Plan](#) and resources will be integrated with the Facility Emergency Response Plan, to form one Plan.

Once decision has been made to escalate the response to [NARRT](#), the [NARRT Incident Commander](#) will meet with the initial Facility Imperial Incident Commander and formally assume Imperial command of the incident following the ICS Transfer of Command principles. The Facility Team Members will normally be integrated within the [Strike Response Team](#), within various functions.

PRINCIPLES FOR INTEGRATION WITH THE REGION TEAM

Within each Region operation, there are many different Facility ER Teams with a variety of different capabilities. There is also a wide diversity of incidents that may occur. It is therefore impossible to define a specific integration arrangement between the Facility and the [NARRT/Strike Teams](#). Rather than defining a specific integration arrangement or organization, the integration will adhere to the following principles:

- The initial Imperial Incident Commander will formally transfer command to the [NARRT Incident Commander](#) as soon as practical after they or their delegate arrives at the scene of the incident. The transfer of command will follow the formal ICS principles:
 - Face to Face Briefing
 - Situation Status
 - Objectives and Priorities
 - Current Organization
 - Resource Assignments
 - Resources ordered/en route
 - Facilities established
 - Media Issues
 - Communications Plan
 - Prognosis, concerns, related issues
 - Formal Acceptance

SECTION 02.03: Integration Integration with the NARRT Emergency Response Team

- Notifications to the Facility Team members and external stakeholders
- The [NARRT](#) Incident Commander will formally delegate ICS roles, responsibilities and authorities to the Facility Team members, consistent with the nature of the incident and rarely demobilize the Facility ER Team.
- The integrated team will be organized consistent with ICS principles.
- The [NARRT/Strike](#) Team will recognize the skills and knowledge that the Facility ER Team members provide to the overall response and assign them to specific functions.

RESPONSIBILITY FOR PLAN INTEGRATION

[CFO](#) as an Imperial Business Unit, ensures that emergency response plans and resources are adequately addresses for potential incident scenarios that supports the risks being managed in their operations and as identified during their risk analysis. (See [ERP-01-01: Introduction: Scope of Plan](#))

[NARRT](#) has the responsibility to develop its Emergency Response Plan providing response management for all of Imperial Business Unit's most probable worst case scenarios that exceed their Facility's Team capabilities.

[NARRT](#) has a Emergency Response Plan that documents:

- Scope and limitations of its plan.
- Roles and responsibilities for managing incidents within its own capabilities.
- Some of the contractual arrangements made with external organizations to support the response activities for potential incidents identified during its risk analysis.
- Integration of additional resources to support a response, including the interface with the [Emergency Support Group \(ESG\)](#)

However, it is the responsibility of each Business Unit (working through the [Emergency Response Advisors](#)) to ensure that the supporting Emergency Response Plan adequately provides response capability for all potential scenarios identified during its risk analysis, that they cannot handle alone.



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 03: Communications and Reporting
SUBJECT 01: Legislative Requirements

SUMMARY

Regulations define details for the required reporting of incidents and incident information to the various levels of Governments. These regulations vary by province and, in some instances, by municipality. In most cases, if certain thresholds are reached (i.e. [released](#) volume, injury, fire, etc.), immediate reporting of this information to the regulatory authority having jurisdiction is required.

Federal and Provincial reporting requirements and contact phone numbers are outlined in [PDM 1-09-01: Incident Reporting: Reporting](#) and [PDM 1-09-07: Incident Reporting: Reporting OI Incidents](#). This section is determined and maintained by the CFO Regulatory Advisor

Municipal or local regulatory reporting requirement and contact phone numbers are outlined in [PDM 4-04-07: Administration: Incident Reporting](#). This section is determined and maintained by the Facility Manager.

If in doubt about about current Facility regulatory reporting requirments or contact numbers, please contact your CFO Regulatory Advisor immmediately to clarify this information. (See Section ERP 09)



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 03: Communications and Reporting
SUBJECT 02: Corporate Requirements

SUMMARY

Canada Fuels Operations (CFO) has emergency incident reporting system requirements that reflect Imperial Oil requirements. The key requirements are; the Incident Reporting System (**IMPACT**), the Incident Command System (ICS), the Emergency Simulation and Incident Response Critique Form as well as the Imperial Oil Treasurers information required for Insurance purposes.

INCIDENT REPORT SYSTEM

Canada Fuels Operations (CFO) requires that all incidents (including emergency response incidents) must be reported and documented within the company's Incident Reporting System (see [PDM 1-09-01: Incident Reporting: Reporting -Overview](#)). The Facility Manager must keep a record/file documenting all aspects of any incident.

ICS 201 FORM

Imperial Oil has adopted the use of the Incident Command System (ICS) as its Emergency Response managing system. The ICS process is well known and widely used by responders in emergency situations throughout North America. The “Incident Briefing ICS 201 – OS” form ([ERP03F01](#)) is used by the Incident Commander (Facility Manager / delegate) to document the Facility's response organization and actions taken during significant CFO Facility’s incidents (requiring prolonged responses).

FACILITY SIMULATION AND INCIDENT RESPONSE CRITIQUE FORM

To continuously improve our emergency preparedness programs, after any Facility emergency response incident, or simulation, all responders will be debriefed. A debriefing session allows the Facility response team to discuss and learn what response actions went well and to document what response action areas need improvement, for which follow up action (gaps) plans are required. The Facility Manager will use debriefing form "Emergency Simulation and Incident Response Critique Form" ([PDM 115F01](#)) and identify/document any debriefing follow up action (gap) plans within CFO's STAR Gap task management system, described in [PDM 1-24-08: System for Task Administration and Reporting \(STAR\): Gap Management](#). An electronic copy of the completed debrief form will be sent by the facility to the [OIMS 10.1 Administrator](#).

SECTION 03.02: Communications and Reporting
 Corporate Requirements

INSURANCE

• The operating divisions of Imperial Oil are required to report any significant incidents to Imperial Oil Treasurers so that timely reporting to our insurers is met. CFO Business Management (Business Management Contact Lists) have the responsibility to notify Treasurers after being advised either, directly by the Facility or, via the incident report filed in the **IMPACT** system (described above).



TITLE **Imperial Facility - Emergency Response Plan**
 SECTION 03: Communications and Reporting
 SUBJECT 03: Meeting the expectations of the Canada Shipping Act, 2001

SUMMARY

The corporate policy with respect to regulatory requirements is contained in our Environmental Policy. It states:

"We will ...:

- *Responsibly manage all aspects of its business to ensure that recognized environmental standards and legal requirements are met".*

CFO marine oil handling facilities must meet Canada Shipping Act, 2001 Standards governing the OHF's requirements for an "Oil Pollution Emergency Plan" (OPEP).

The following concordance table references sections in Imperial's documents that meet the specific requirements of the Canada Shipping Act, 2001.

PART II: OIL HANDLING FACILITIES

Canada Shipping Act, 2001

Concordance Table – OPEP Sections to the Response Organization and Oil Handling Facilities Regulations (SOR/95-405)

Section (SOR/95-405)	Relevant Text	OPEP Section	Source Reference Document
OIL POLLUTION EMERGENCY PLAN			
12.(1)	The operator of an oil handling facility shall demonstrate in the oil pollution emergency plan that the operator has the capability to comply with the requirements relating to the procedures, equipment and resources referred to in section 13.		
12.(2)	An oil handling facility's oil pollution emergency plan shall include the following information:		
12.(2)(a)	the policies that the operator of the oil handling facility will follow in the event of an oil pollution incident;	03: Overview- 04	ERP-01-03
12.(2)(b)	in respect of each group of oil products that are loaded or unloaded to or from a ship at the oil handling facility and that, if spilled, would individually require a response similar to the appropriate response for every other oil product in the group, an oil pollution scenario that contains	12: Scenarios- 01	ERP-09-12

SECTION 03.03: Communications and Reporting
 Meeting the expectations of the Canada Shipping Act, 2001

Section (SOR/95-405)	Relevant Text	OPEP Section	Source Reference Document
12.(2)(b)(i)	a description of the response in respect of the spill size determined in accordance with section 2 of the Oil Handling Facilities Standards; and	03: Overview- 01	ERP-09-02
12.(2)(b)(ii)	the assumptions on which each scenario is based, taking into account the factors set out in section 3 of the Oil Handling Facilities Standards;	13: Appendix- 01	ERP-09-12
12.(2)(c)	a description of the activities that will be carried out in the event of an oil pollution incident, taking into account the priorities set out in section 4 of the Oil Handling Facilities Standards, the time within which those activities will be carried out and the names of the persons responsible for carrying them out;	04: Action Plans-01 04: Action Plans-02	ERP 0902F01 ERP-08-22
12.(2)(d)	the types and quantity of equipment for use on scene during a response to an oil pollution incident at the oil handling facility in respect of the spill size that is determined in accordance with section 2 of the Oil Handling Facilities Standards;	11: Response Equipment - 01	ERP-09-07
12.(2)(e)	the name of each person or body from which the equipment and resources will be obtained, in the event of an oil pollution incident, and the manner in which the equipment and resources will be deployed;	04: Action Plans-01	ERP 0902F01
12.(2)(f)	the name or position of the persons who are authorized and responsible for ensuring that the response to an oil pollution incident at the oil handling facility is immediate, effective and sustained;	03: Overview-02	ERP 09-03
12.(2)(g)	the name of each person included in the personnel who has received basic oil pollution incident response training or any other training in relation to an oil pollution incident;	03: Overview- 02	ERP 09-03 (page 2 of 3)
12.(2)(h)	a description of the training that the operator of the oil handling facility provides to its personnel in preparation for the responsibilities that they might be requested to undertake in response to an oil pollution incident;	10: Team Preparedness- 01	ERP 07-01 (page 2 of 6)
12.(2)(i)	a description of the training that the operator of the oil handling facility plans to provide to its employees and to volunteers whom it might use to respond at short notice to an oil pollution incident;	10: Team Preparedness- 01	ERP 07-01 (page 2 of 6)
12.(2)(j)	an oil pollution incident exercise programme established to evaluate the effectiveness of all aspects of the procedures, equipment and resources that are identified in the oil pollution emergency plan, including exercises to be coordinated with ships, response organizations or the Canadian Coast Guard, as the case may be;	10: Team Preparedness- 02	ERP 07-02

SECTION 03.03: Communications and Reporting
 Meeting the expectations of the Canada Shipping Act, 2001

Section (SOR/95-405)	Relevant Text	OPEP Section	Source Reference Document
12.(2)(k)	a description of the measures that the operator of the oil handling facility will take, in accordance with federal and provincial regulations relating to health and safety, to protect the health and safety of personnel, of volunteers and of other individuals who are involved, at the request of the operator, in responding to an oil pollution incident;	09: Health & Safety-01	ERP 04-04
12.(2)(l)	a description of procedures for the updating of the oil pollution emergency plan; and	02: Introduction-01	ERP 00-03
12.(2)(m)	a description of the manner in which the operator of the oil handling facility plans to respond to an oil pollution incident that involves a quantity of oil that is greater than the spill size referred to in paragraph (d) and that is scheduled to be transhipped, to a maximum of 10,000 t.	03: Overview- 01 03: Overview- 02 04: Action Plans- 01	ERP-09-02 ERP-09-03 ERP 0902F01
12. (3).	An oil handling facility's oil pollution emergency plan shall take into account any contingency plan for the area that is issued by the Canadian Coast Guard.	07: Team Organization-03 10: Team Preparedness-01	ERP 02-01 ERP 07-01
OIL POLLUTION INCIDENT PROCEDURES, EQUIPMENT AND RESOURCES			
13.(1)	The procedures that an oil handling facility shall implement on site, in respect of an oil pollution incident arising out of the loading or unloading of oil to or from a ship, include the following:		
13.(1)(a)	the loading and unloading operation is to be shut down immediately and is not to be restarted in a manner that would interfere with the immediate, effective and sustained response to the oil pollution incident;	04: Action Plans-01	ERP 0902F01
13.(1)(b)	the response to the oil pollution incident is to be managed in coordination with the Canadian Coast Guard and federal, provincial and other bodies responsible for, or involved in, the protection of the environment;	07: Team Organization-03	ERP 02-01
13.(1)(c)	in relation to the quantity of oil involved in the oil pollution incident, up to the minimum spill size determined in accordance with section 2 of the Oil Handling Facilities Standards, the response to that incident in accordance with paragraphs 13(2)(b) and (c);	04: Action Plans-03	PDM 04-03-06
13.(1)(d)	the operator takes the measures required during the response to the oil pollution incident in accordance with the priorities set out in section 4 of the Oil Handling Facilities Standards;	04: Action Plans-01	ERP 0902F01
13.(1)(e)	at least one of the persons referred to in paragraph 12(2)(f) is to be accessible to the Canadian Coast Guard during the entire loading or unloading operation; and	04: Action Plans-01	ERP 0902F01

SECTION 03.03: Communications and Reporting
 Meeting the expectations of the Canada Shipping Act, 2001

Section (SOR/95-405)	Relevant Text	OPEP Section	Source Reference Document
13.(1)(f)	the operator of the oil handling facility is prepared, after the response in relation to a quantity of oil of the spill size referred to in paragraph (c), to respond to an oil pollution incident in relation to the total quantity of oil that is scheduled to be transhipped, to a maximum of 10,000 t.	03: Overview-01 03: Overview-02	ERP 09-02 ERP 09-03
13.(2)	The equipment and resources that an oil handling facility shall have for use, in respect of an oil pollution incident at the oil handling facility arising out of the loading or unloading of oil to or from a ship, include the following:		
13.(2)(a)	the equipment referred to in paragraph 12(2)(d) that is required to contain and control the oil or, where the oil cannot be contained, to control the quantity of oil involved in the incident, up to the minimum spill size determined in accordance with section 2 of the Oil Handling Facilities Standards, is to be on site during any loading or unloading operation;	04: Action Plans-04 11: Response Equipment-01	PDM 04-03-05 ERP 09-07
13.(2)(b)	the equipment and resources required to contain and control the oil or, where the oil cannot be contained, to control the quantity of oil involved in the incident, up to the minimum spill size determined in accordance with section 2 of the Oil Handling Facilities Standards, are to be deployed on scene within one hour after the discovery of the oil pollution incident, unless deployment within one hour would be unsafe, ineffective or impracticable; and	04: Action Plans-04 12: Scenarios-01	PDM 04-03-05 ERP 09-12
13.(2)(c)	the equipment and resources required to recover and clean up the oil involved in the incident up the minimum spill size determined in accordance with section 2 of the Oil Handling Facilities Standards are to be deployed on scene within six hours after the discovery of the oil pollution incident.	04: Action Plans-04 12: Scenarios-01	PDM 04-03-05 ERP 09-12
OIL HANDLING FACILITY TIERED RESPONSE CAPABILITY			
14.(1)	This section applies to the operator of an oil handling facility in waters south of the sixtieth parallel of north latitude where	NA	
14.(1)(c)	the response is subsequent to a response in accordance with paragraphs 13(2)(b) and (c); and	NA	
14.(1)(b)	the preparations referred to in paragraph 13(1) (f) do not include the implementation of an arrangement entered into with a response organization.	NA	
14.(2)	The operator of an oil handling facility shall demonstrate in the oil pollution emergency plan that the operator has the capability to comply with the requirements relating to the procedures, equipment and resources set out for a response organization in section 4, with such modifications as the circumstances require.	NA	
14.(3)	In addition to the information required by subsection 12(2), the oil pollution emergency plan shall contain the information required for a response organization by subsection 3(2), with such modifications as the circumstances require.	NA	

SECTION 03.03: Communications and Reporting
 Meeting the expectations of the Canada Shipping Act, 2001

Section (SOR/95-405)	Relevant Text	OPEP Section	Source Reference Document
14.(4)	The procedures that an oil handling facility shall implement and the equipment and resources that it shall have on scene are as set out in section 4 for a response organization, with such modifications as the circumstances require.	NA	
OIL POLLUTION INCIDENT EXERCISE PROGRAMME			
15.	An oil pollution incident exercise programme referred to in paragraph 12(2)(j) shall be carried out over a three-year period that begins on the day on which the oil handling facility is designated pursuant to subsection 660.2(8) of the Act and over each three-year period thereafter.	10: Team Preparedness-02	ERP-07-02
SUBMISSION			
16.	The operator of an oil handling facility shall submit to the Minister four copies of the oil pollution emergency plan.		
PLAN UPDATE			
17.	The operator of an oil handling facility shall update the oil pollution emergency plan characteristics and policy; and	02: Introduction-01	ERP-00-03
17.(a)	annually, to take into account changes in law, in environmental factors and in facility	02: Introduction-01	ERP-00-03
17.(b)	after every oil pollution incident and exercise.	02: Introduction-01	ERP-00-03
ARRANGEMENT WITH RESPONSE ORGANIZATION			
18.	For the purpose of paragraph 660.2(4)(b) of the Act, the specified quantity of oil in respect of which the operator of a designated oil handling facility shall have an arrangement with a certified response organization is, for any operation, the total quantity of oil scheduled to be transhipped, to a maximum of 10,000 t	03: Overview-02	ERP-09-03
DECLARATION			
19.	For the purpose of paragraph 660.2(4)(c) of the Act, the declaration by an operator of an oil handling facility that is designated pursuant to subsection 660.2(8) of the Act shall be in the form set out in Part II of the schedule.	03: Overview-02	ERP-09-03



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 03: Communications and Reporting
SUBJECT 04: Meeting the expectations of CEPA Part 199
Environmental Emergency Regulations

SUMMARY

The Environmental Emergency Regulations (2011), under the Canadian Environmental Protection Act (CEPA) Part 199, identifies that "designated" sites, storing flammable and hazardous substances, require an Environmental Emergency Plan (E2 Plan). Designated sites are those that store these substances above stated CEPA threshold volume levels. Not all Canada Fuels Operations (CFO) Facilities qualify and, as such, are E2 exempt. The stated E2 Plan requirements are beyond the normal contents of an ERP given that E2 indicates sites must address Prevention, Preparedness, Response and Recovery. Within CFO operations (for example - Prevention plans), these typically are not documented in an ERP, rather they form part of CFO's Operations Integrity Managing Framework (OIMF) systems, their operating manuals (contain standard operating practices), or are contained within other company documentation.

Referencing CEPA legislation and guidance documents and, rather than duplicating them, this ERP section serves as a bridging document to the associated ERP sections. Each E2 Plan requirement identified below lists the corresponding ERP location or CFO operating manual(s) where the information can be found.

CEPA 200 SUBSTANCES ONSITE

The list of CEPA 200 substances (identified with a CAS #) and quantities contained onsite in amounts that exceed the threshold volumes, thus requiring an E2 Plan, are listed in section ERP-09-02: Appendices: Facility Specific «Scope of the Plan». Some CFO sites do not store or are under the threshold storage limits and are E2 exempt.

For a current inventory, reference should be made to the latest update filed with Environment Canada or may be obtained by contacting this ERP Plan Owner identified in section ERP-09-01: Appendices: Facility Specific «Distribution List».

SUBSTANCE PROPERTIES AND CHARACTERISTICS

This information is covered in section ERP-04-07: General Response Procedures: Health Hazards Information.

SITE ACTIVITIES

This information is covered in section ERP-09-02: Appendices: Facility Specific «Scope of the Plan».

SECTION 03.04: Communications and Reporting
Meeting the expectations of CEPA Part 199
Environmental Emergency Regulations

FACILITY SETTING

This information is covered in section
ERP-09-02: Appendices: Facility Specific «Scope of the Plan».

POTENTIAL SCENARIOS AND IMPACTS

Canada Fuels Operations (CFO) have defined generic potential risk scenarios applicable to CFO Facilities (see PDM 1-15-02: Emergency Response: Facility Emergency Response Plan) and various specific contingency plans have been developed which can be found in section: ERP08: Specific Contingency Plans. Even though risk scenario impacts could vary slightly from one site to another, the response steps are the same.

Within each Specific Contingency Plan, steps are listed to respond to potential impacts that will vary depending on the severity of each incident. To assist in assessing impacts, responders can use (a) for incidents contained within the site; - Facility site plot plans found in ERP-09-09: Appendices: Facility Specific «Plan of Emergency Features» and, (b) for impacts off-site, information contained in ERP-09-10 Appendices: Facility Specific «Surrounding Area Contingency Plan».

NOTE: Access to section ERP-09-10 is Restricted to internal use only as it could contain public information, which is controlled under privacy regulations.

INCIDENT PREVENTION AND PREPAREDNESS

Incident prevention and preparedness measures are integrated into the Operations Integrity Managing System (OIMF) for the Facility. Relevant documentation for Prevention is within the CFO site operating procedure manuals. These manuals cover all operating and maintenance procedures to ensure safe handling of petroleum products and maintenance of the facilities. These operating procedures and specific safety related site equipment, were developed to prevent incidents from occurring.

Incident preparedness is covered by this Emergency Response Plan (ERP).

INCIDENT RESPONSE

This ERP provides detailed information regarding emergency response plans and procedures, including the names of the individuals who are to execute the plan in the event of an emergency situation occurring at the Facility. The following table shows how this ERP meets the E2 Plan requirements:

SECTION 03.04: Communications and Reporting
 Meeting the expectations of CEPA Part 199
 Environmental Emergency Regulations

<u>E2 Plan Article</u>	<u>Description</u>	<u>Section(s) of the Emergency Response Plan</u>
4. (2) a)	The properties and characteristics of the substance and the maximum expected quantity of the substance at the place at any time during a calendar year	04-03 and 09-02
4. (2) b)	The commercial, manufacturing, processing or other activity in relation to which the plan is to be prepared	09-02
4. (2) c)	The characteristics of the place where the substance is located and of the surrounding area that may increase the risk of harm to the environment or of danger to human life or health	09-09 and 09-10
4. (2) d)	The potential consequences from an environmental emergency to the environment and on human life or health	04-07
4. (3) a)	A description of the factors considered under subsection 4(2) of the E2 Regulations	See above sections
4. (3) b)	The identification of any environmental emergency that can reasonably be expected to occur at the place and that would likely cause harm to the environment or constitute a danger to human life or health, and identification of the harm or danger	08-13, 08-14, 08-15, 08-16, 08-17, and 08-21
4. (3) c)	A description of the measures to be used to prevent, prepare for, respond to and recover from any environmental emergency identified in paragraph 4(3)(b) of the E2 Regulations (above)	08-13, 08-14, 08-15, 08-16, 08-17, 08-21
4. (3) d)	A list of the individuals, identified by name or position, who are to carry out the plan in the event of an environmental emergency, and a description of their roles and responsibilities	05-01, 05-02, 05-03, 05-04, 09-04
4. (3) e)	The identification of the training required for each of those individuals	07-01
4. (3) f)	A list of the emergency response equipment included as part of the E2 plan, and the equipment's location	09-07 and 09-09
4. (3) g)	The measures to be taken by the person to notify, prior to, during and after an environmental emergency, those members of the public who may be adversely affected by an environmental emergency, and to inform them of the measures taken and what they need to do in the event of an environmental emergency	08-13, 08-14, 08-15, 08-16, 08-17, 08-21

SECTION 03.04: Communications and Reporting
Meeting the expectations of CEPA Part 199
Environmental Emergency Regulations

RESPONDER TRAINING

Training requirements are detailed in section ERP-07-01: Team Preparedness: Emergency Response Team Skills Requirements.

RESPONSE EQUIPMENT

Emergency Response Equipment is detailed in section ERP-07-03: Team Preparedness: Facility Emergency Response Equipment.

COMMUNITY ALERTING

In an emergency event, most CFO Facilities rely on Public Responders (i.e. Fire and Police) to notify the neighbouring community should situations occur that might impact them. The Imperial Incident Commander (Facility Manager / delegate) will contact the local Public Responders and ask them to notify those who may potentially be impacted. This step is included within all relevant ERP-08: Specific Contingency Plans sections.

Some CFO Facilities may have specific procedures to notify the community (i.e. very closely located neighbours). In such cases, procedures will be documented in ERP-09-10: Appendices: Facility Specific «Surrounding Area Contingency Plan».

NOTE: Access to section ERP-09-10 is restricted to internal use only as it could contain public information, which is controlled under privacy regulations.

INCIDENT AREA RECOVERY

As soon as possible following an emergency situation, the Imperial Incident Commander will develop a recovery plan for impacted area(s) and return them to a safe and acceptable condition. This plan will be developed, with appropriate Imperial Oil resources and ER contractors, in co-operation with the local government authorities and, if appropriate, other impacted stakeholders. For the Imperial Incident Commander use, these resources are listed within the ERP-08: Specific Contingency Plans sections.

PLAN UPDATES

The Environmental Emergency Regulations require an annual update of the E2 Plan. Results of the annual update must be kept for a period of five years. Procedures for updating this Plan are in section ERP-00-03: Document Control: Maintaining this Plan and copies of Revision are kept by the CFO.

SECTION 03.04: Communications and Reporting
Meeting the expectations of CEPA Part 199
Environmental Emergency Regulations

EXERCISE REQUIREMENTS

The Environmental Emergency Regulations require annual exercises (simulations) and exercise finding documentation is to be kept for a period of five years. Emergency Response exercise details are found in section ERP-07-02: Team Preparedness: Exercises. Exercise records are kept on site at the Facility, in their filing system.



TITLE **Imperial Facility - Emergency Response Plan**
 SECTION 03: Communications and Reporting
 SUBJECT 05: Alberta AER Reporting Requirements - Pipelines Operating in Alberta

SUMMARY

In the event of any emergency situation, the Alberta Energy [Regulators \(AER\)](#), requires Alberta pipeline operators to report to them immediately, using the specific incident criteria classifications, as outlined in their Directive 71. These classifications are used to determine and describe the level of initial incident severity, or emergency level, both when reporting incidents initially to the EUB and subsequently throughout the incident response effort. The [AER "Criteria Matrix for Classifying Incidents"](#) terminology must be used when reporting. **See Table 1 for these reporting criteria.**

Table 2 outlines [AER's](#) suggested communication actions with the public and media, at each of the incident severity levels declared by the pipeline operator in Table 1.

TABLE 1: AER "CRITERIA MATRIX FOR CLASSIFYING INCIDENTS"

All incidents are classified as either an "Alert" or an "Emergency" (level 1, 2, or 3). Incidents that can be handled on site through normal operating procedures are typically defined as "Alerts", while those with a more complex resolution are usually defined as "Emergencies". The level of emergency is determined by the pipeline operator and confirmed through consultation with the [AER](#).

Criteria Matrix for Classifying Incidents (Directive 71)				
Risk	Alert: Minimal	Emergency*		
		Level 1: Low	Level 2: Medium	Level 3: High
Control	Immediate control of hazard, with progressive resolution of the situation.	Immediate control of hazard is becoming progressively more complex because of deteriorating conditions.	Imminent and/or intermittent control of the hazard is possible.	Imminent control of the hazard is not possible.
Containment	Control and relief systems functioning correctly.	Control and relief systems functioning correctly.	Some control and/or relief systems not operational.	Key control and relief systems not operational.
Impact				
Public/worker safety	On site only.	On site, with possible impact off site.	On site, with possible impact off site.	Potential for public safety to be jeopardized
Environment	On site only.	On site, with some potential off site. Minor or short term.	On site, with some off site. Minor or short term.	On site, with significant off site. Long term.

SECTION 03.05: Communications and Reporting
 Alberta AER Reporting Requirements -
 Pipelines Operating in Alberta

The pipeline operator must also contact agencies and services required to assist with initial response, which may include contacting the local authorities at a level-1 emergency if required. At a level-2 or -3 emergency, the AER contacts Emergency Management Alberta, which implements fan-out calls to the required government departments and agencies.

TABLE 2: AER POSSIBLE COMMUNICATION RESPONSES AT EMERGENCY LEVEL

Possible Responses for Specified Incidents (Directive 71)				
Responses	Alert	Emergency		
		Level 1	Level 2	Level 3
Communications				
Internal	Discretionary, depending on company policy.	Discretionary, depending on company policy.	Immediate notification of off site management.	Immediate notification of off-site management.
External public	Courtesy at company discretion.	Mandatory for individuals within the EPZ requiring notification.	Planned and instructive as per the specific ERP.	Planned and instructive as per the specific ERP.
Media	Reactive, as required.	Reactive, as required.	Proactive-media management to local or regional interest.	Proactive-media management to national interest.
Government	Notify AER if public contacted	Notify AER and local authority, if required for initial response.	Notify AER and local authority.	Notify AER and local authority.
Actions				
Internal	On site, as required by company.	On site, as required by company. Initial response undertaken in accordance with the specific or corporate-level ERP.	Predetermined public safety actions are under way. Corporate management team alerted and may be appropriately engaged to support on-scene responders.	Full implementation of emergency management system.
External	On site, as required by company.	On site, as required by company.	Potential for multi-agency (operator, municipal, provincial, or federal) response.	Immediate multi-agency (operator, municipal, provincial, or federal) response.
Resources				
Internal	Immediate and local. No additional personnel required.	Establish what resources would be required.	Limited supplemental resources or personnel required.	Significant incremental resources required.
External	None.	Begin to establish resources that may be required.	Possible assistance from government agencies and external support services, as required.	Assistance from government agencies and external support services, as required

SECTION 03.05: Communications and Reporting
Alberta AER Reporting Requirements -
Pipelines Operating in Alberta

When an [AER](#) defined Level 1 emergency, or above, has been established, the external public within an Emergency Planning Zone (EPZ) must be alerted. EPZs have been determined for [CFO](#) Alberta HVP Pipelines and public contact lists have been determined within those EPZs in accordance with Guide 71. Public contact information is private. The contact lists database is managed by the [CFO](#) Community Awareness coordinator, for specific Alberta [CFO](#) HVP pipelines, who ensures communications with the public, will be made when, and as required. Communications will include;

- type and status of the incident
- location and proximity of the incident to people in the vicinity

At a [AER](#) defined Level 1 emergency, or above, [CFO](#) response and communication efforts will be escalated within Imperial resources, beyond [CFO](#). See ERP-02-03.

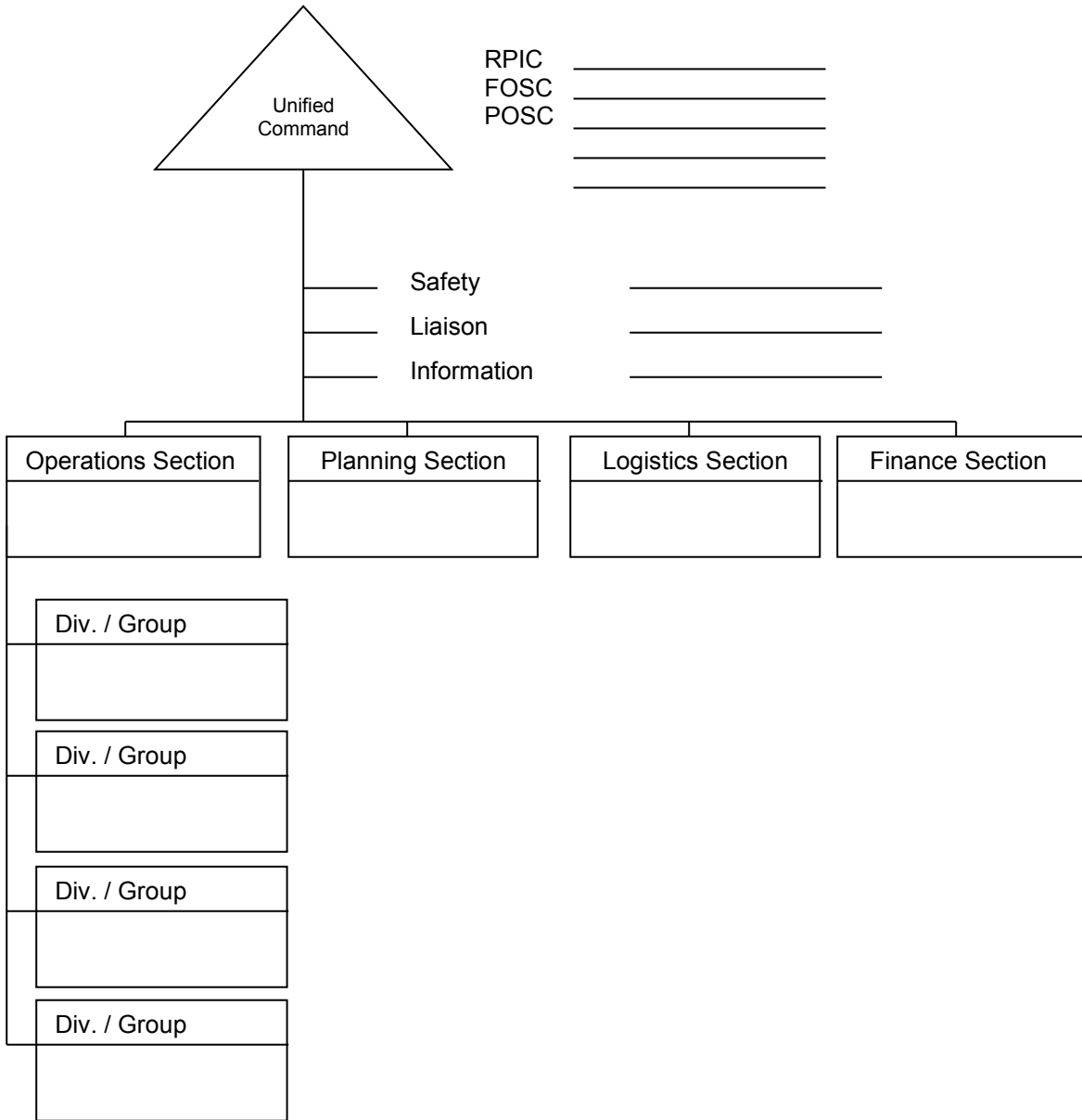


1. Incident Name

2. Prepared by: (name)
Date: _____ Time: _____

INCIDENT BRIEFING
ICS 201 Form
Page 3 of 4

6. Current Organization



INSTRUCTIONS FOR FILLING OUT the INCIDENT BRIEFING (ICS 201) Form - pages 1 to 4

Purpose: The Incident Briefing form provides basic information regarding the response situation and the resources allocated to the initial incident response. It is also a permanent record of the initial incident response.

Preparation: This briefing form is prepared under the direction of the initial Incident Commander. Should a prolonged response be required, it can be used for presentation and transfer of information to the Region Team / Unified Command that is established for that continuation purpose.

Item #	Item Title	INSTRUCTIONS
1.	Incident Name.	Enter the name assigned to the incident
2.	Prepared By: Date Time	Enter the name and position of the person completing the form Date prepared (month, day, year) Time prepared (24 hour clock)
3.	Map / Sketch.	Show the total Area of Operations, the incident site, over-flight results, trajectories, impacted shorelines or other graphics depicting situation and response status on a sketch or attached map
4.	Objectives	Short, clear, concise statements of the initial incident objectives for managing the initial response.
5.	Summary of Current Actions	Enter the actions taken in response to the incident, including the time, and note any significant events or specific problem areas.
6.	Current Organization	Enter, on the organization chart, the names of the individuals assigned to each position. Modify the chart as necessary, using additional boxes in the space provided under the Sections. Two blank lines are provided in the Unified Command section for adding other agencies or groups participating in the Unified Command and/or for multiple Responsible Parties. RPIC = Responsible Party Incident Commandeer FOSC = Federal On Scene Commander / Monitoring Officer POSC = Provincial On Scene Commander Others (list)
7.	Resources Summary - Resources needed - Time Ordered - Resource Identified - ETA - On-Scene - Location / Assignment / Status	Enter the following information about the resources allocated to the incident Description of the resources needed (e.g. boom, skimmer, vac truck, etc.) Time ordered (24 hour clock) Identifier for the resources (radio call sign, vendor number, license plate, etc.) Estimated time resource expected to arrive at staging area "X" upon resource's arrival on scene Location of the resource, the actual assignment, and the status of the resource (if other than working)

NOTE: Additional pages may be added to the ICS 201 form if needed.

CCG RELEASE REPORTING INFORMATION CHECKLIST

To the extent possible, the following information should be gathered in order to inform the Canadian Coast Guard of a [release](#). In the event that all of the information is not readily available, an initial report to the Coast Guard should be made promptly with a more detailed report given when all of the details are known.

Release Reporting Checklist	
Vessel Name	
Date of Incident	
Time of Incident	
Facility Name	
Facility Location	
Radio Station	
Date and Time of next report	
Cargo / Fuelling Details (types and quantities)	
Brief details of damage	
Brief details of quantities released	
Brief details of weather and sea conditions	
Details of ship's owner / agent (if available)	
Ship size and type	
Any additional information:	
Incident details	
Need for assistance	
Actions underway	
Injuries	
P&I Club name	

Report by: _____

Phone #: _____

Date: _____

Time: _____

TITLE **Imperial Facility - Emergency Response Plan**
SECTION 04: General Response Procedures
SUBJECT 01: Team Activation and Mobilization

SUMMARY

To activate a Facility Emergency Response Team at any time, all [Canada Fuels Operations \(CFO\) Facility - Emergency Response Plan \(ERP\)](#) Holders can call the appropriate CFO Facility operations center contact listed in [ERP-06-01: Emergency Response Contacts and Resources: Facility Emergency Response Resources](#). The operations center contact will take incident details and contact the Facility Manager (or delegate), who will activate the Facility Team and become the Facility Team's initial Imperial Incident Commander.

Internal Company CFO ER Plan Holders can activate the Facility ER Team either as indicated above or, by directly calling the Facility Manager (or delegate) at the numbers(s) listed within [ERP-09-04: Appendices: Facility Specific «Contacts Lists»](#).

NOTE: Access to section ERP-09-04 is Restricted to internal use only as it may contain private information, which is controlled under privacy regulations.

A Facility Emergency Response Team could also be activated by a non Plan holder (i.e. Public Authorities, company Business Associates, Public) by calling the Imperial Emergency number @ [Terminal Operations Unit \(TOU\) in Moncton \(1-866-232-9563\)](#), or, for pipeline operations, by calling the [Houston Control Center \(1-800-372-9597\)](#).

TEAM ACTIVATION USING THE EMERGENCY RESPONSE PLAN

In the event of an incident involving one of Imperial's Facilities, any ER Plan Holder may consult ERP-06-01 of this Plan, or if you are an internal Company ER Plan Holder may consult ERP-09-04, to reach any of the Facility personnel. The first contact should be with the Imperial Incident Commander, usually the Facility Manager (or delegate).

An ER Plan Holder may also decide to utilize one of Imperial's emergency numbers.

TEAM ACTIVATION USING AN IMPERIAL EMERGENCY NUMBER

In the event of an incident involving one of Imperial's Facilities, an individual can activate an Imperial's emergency response by contacting one of Imperial's emergency numbers. Those numbers are highly posted at sites and available by:

- On Imperial Oil bills of lading,
- On the fences/gates at Imperial Facilities,
- On Pipeline right-of-way signs, located at all road crossings
- In the Imperial Facility - Emergency Response Plan, and
- At CANUTEC

SECTION 04.01: General Response Procedures
Team Activation and Mobilization

When contacted through an Imperial emergency number, the recipient of the call will activate the Imperial Incident Commander of the Facility involved. Several means exist to contact the appropriate Emergency Response Team.

FACILITY EMERGENCY RESPONSE TEAM DEPLOYMENT

Once the Facility team is activated the Facility Imperial Incident Commander (usually the Facility Manager or delegate) will, on site or over the phone, evaluate and formally assume the Imperial command of the incident, if deemed an Imperial incident. The Imperial Incident Commander will activate the appropriate Specific Contingency Plan, (ERP-08 sections) and dispatch team members and other ER resources to the incident scene, as necessary. Upon arriving at the scene of the incident, the Imperial Incident Commander will meet with people on site and proceed with his duties, as are identified in [ERP-05-01: Roles and Responsibilities: Imperial Incident Commander](#).



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 04: General Response Procedures
SUBJECT 02: Team Organization

SUMMARY

This section provides the organizational structure of the Facility Emergency Response Team. Once activated, as identified in ERP-04-01, the Imperial Incident Commander will take charge of the Imperial response and be responsible for it.

In the case of an incident occurring at an Imperial Facility that uses a marine dock not owner by Imperial, the Imperial Incident Commander would seek the consent of the Dock Owner as indicated in ERP-02-02. Should an incident occur during a marine receipt, the Imperial Incident Commander would also seek the participation of the vessel Owner. Team organization will then reflect this particular situation.

A Facility Emergency Response Team is generally made of the Facility Manager, the Facility Workforce and Facility contractors. The Facility also has access to [Canada Fuels Operations \(CFO\)](#) Support and Business Management contacts. Furthermore, the Imperial Incident Commander has access to several other Imperial Emergency Response Resources. In all instances, the authority resides with the Imperial Incident Commander, or their delegate. When an emergency situation arises, if the designated Imperial Incident Commander is not on site, the most senior employee then becomes the Imperial Incident Commander.

MEMBERS OF THE FACILITY EMERGENCY RESPONSE TEAM

The list of members can be found in ERP-09-04 of this Plan.

NOTE: Access to section ERP-09-04 is Restricted to internal use only as it may contain private information, which is controlled under privacy regulations.

OTHER IMPERIAL EMERGENCY RESPONSE RESOURCES

A list of Other Imperial Emergency Response Resources can be found in ERP-06-02.

FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES

As Imperial uses Unified Command (see ERP-01-05) for any emergency situation, a listing of Federal and Provincial Authorities can be found in ERP-06-03 and a listing of Local Authorities in ERP-09-04 (Restricted to internal use only - see above Note)

SECTION 04.02: General Response Procedures
 Team Organization

RESPONSIBILITY

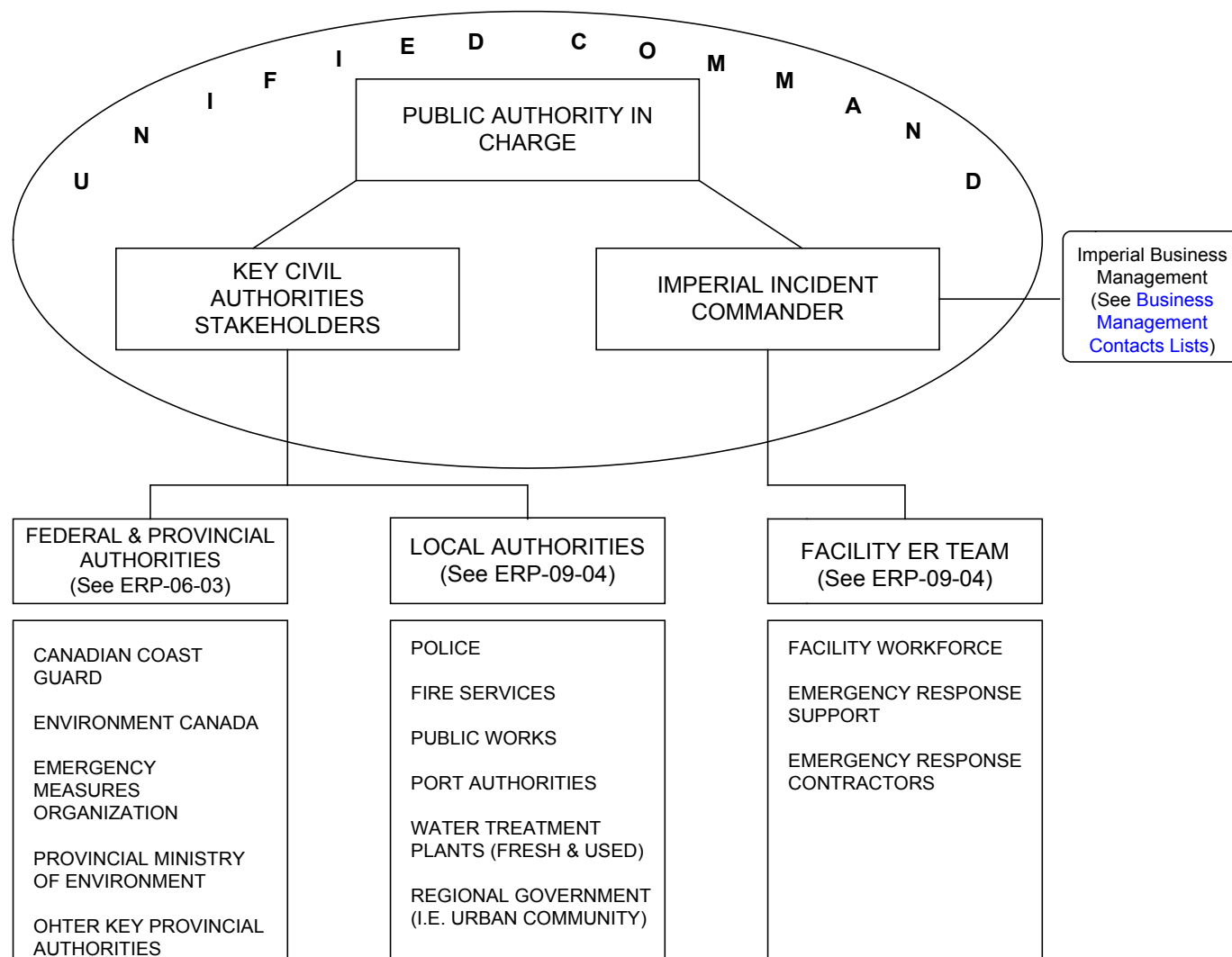
Once the Facility Emergency Response Team is activated, the Imperial Incident Commander (usually the Facility Manager or delegate) will evaluate the situation and determine whether they have sufficient resources to effectively and efficiently respond to the emergency. Should the emergency situation become larger than the local Facility capabilities (both knowledge and ER resources) can handle, or there is indication that the response will become a prolonged event, the Imperial Incident Commander will escalate the response level, in accordance with the procedures outlined in [ERP-04-06: General Response Procedures: Response Escalation](#).

SECTION 04.02:

General Response Procedures
 Team Organization

Team organization for
 an Imperial Facility
 Emergency Response
 Team

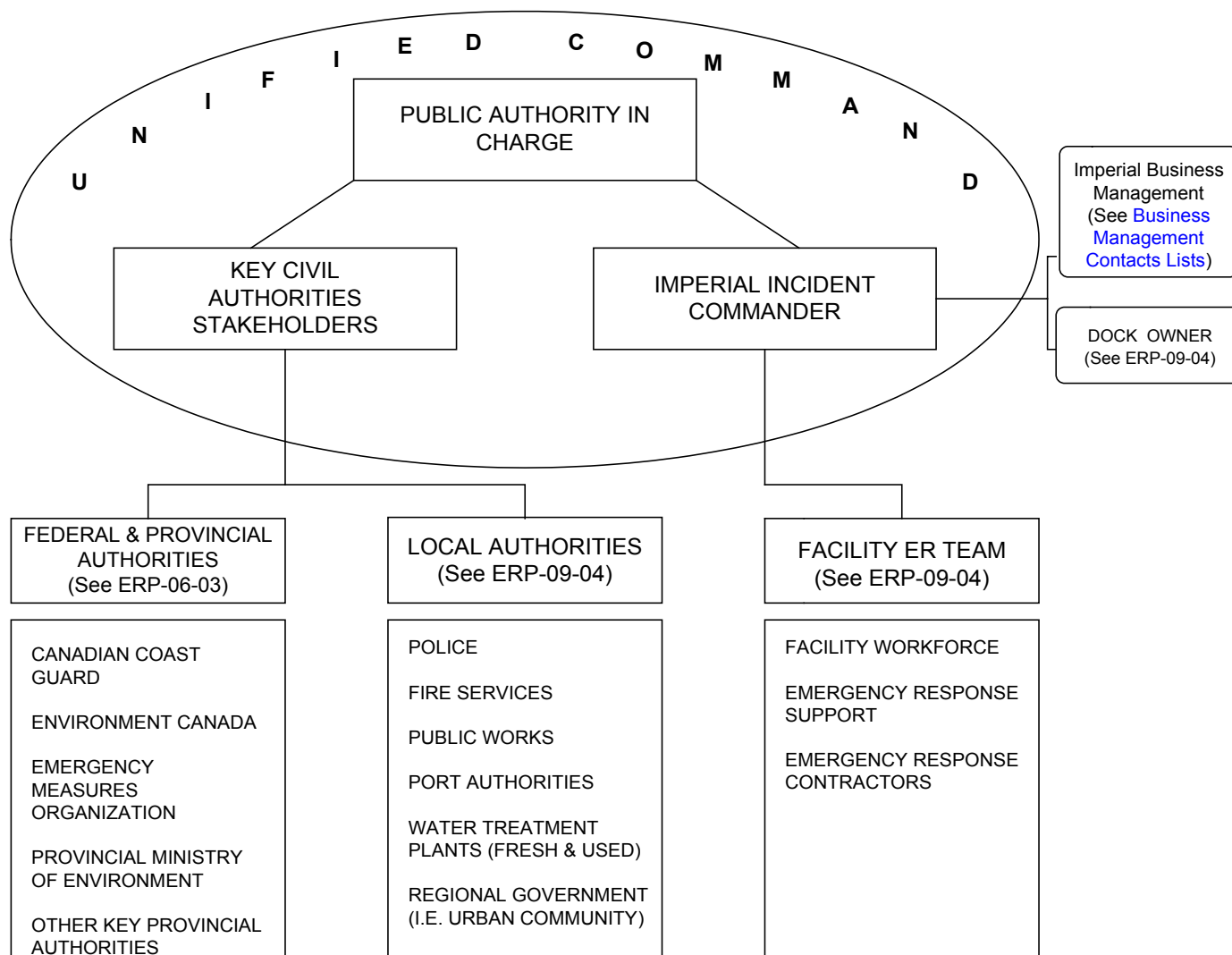
Own Facility incident



SECTION 04.02: General Response Procedures
 Team Organization

Team organization for
 an Imperial Facility
 Emergency Response
 Team

On a third party Dock

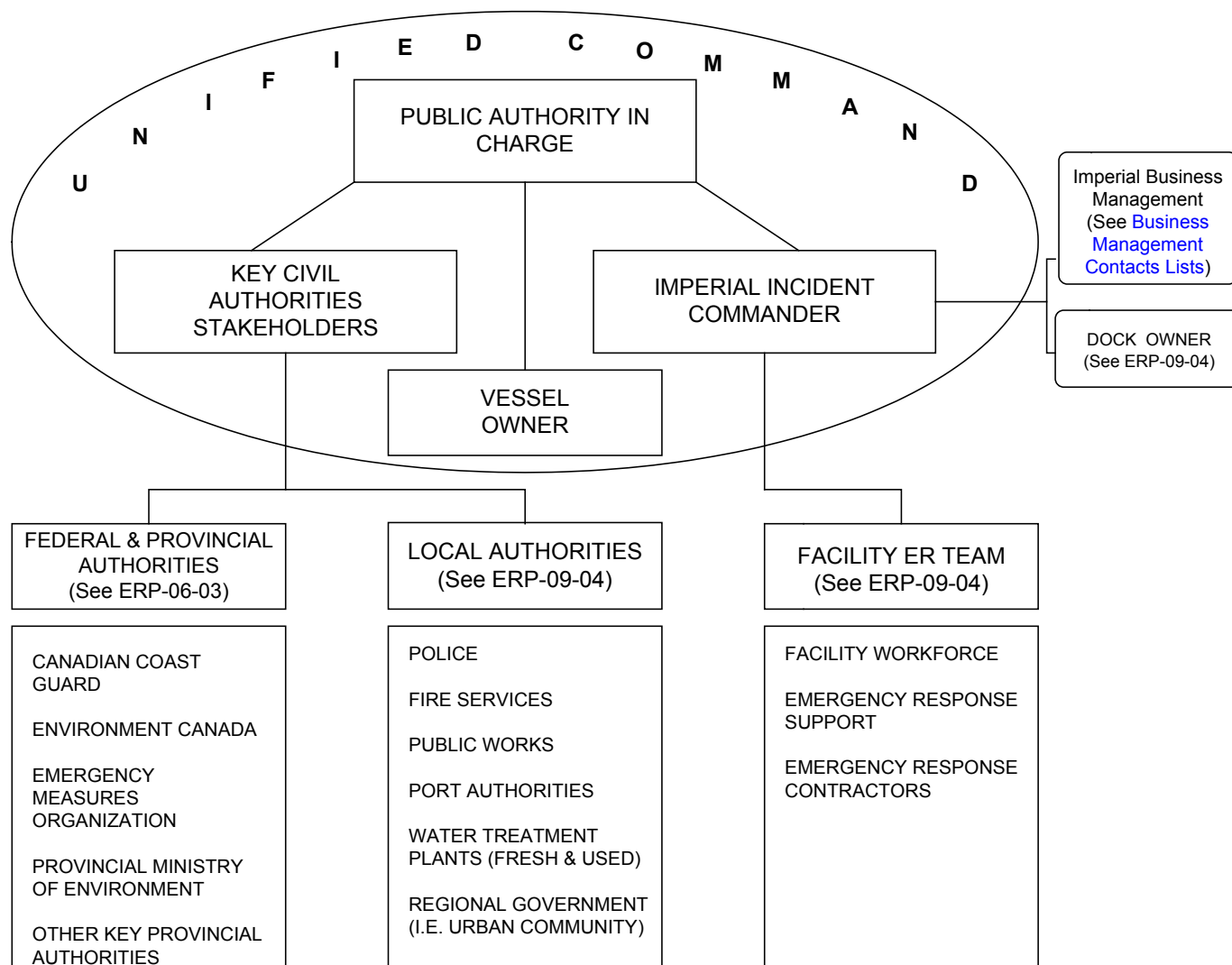


SECTION 04.02:

General Response Procedures
 Team Organization

**Team organization for
 an Imperial Facility
 Emergency Response
 Team**

**On a third party Dock
 during a Marine receipt**

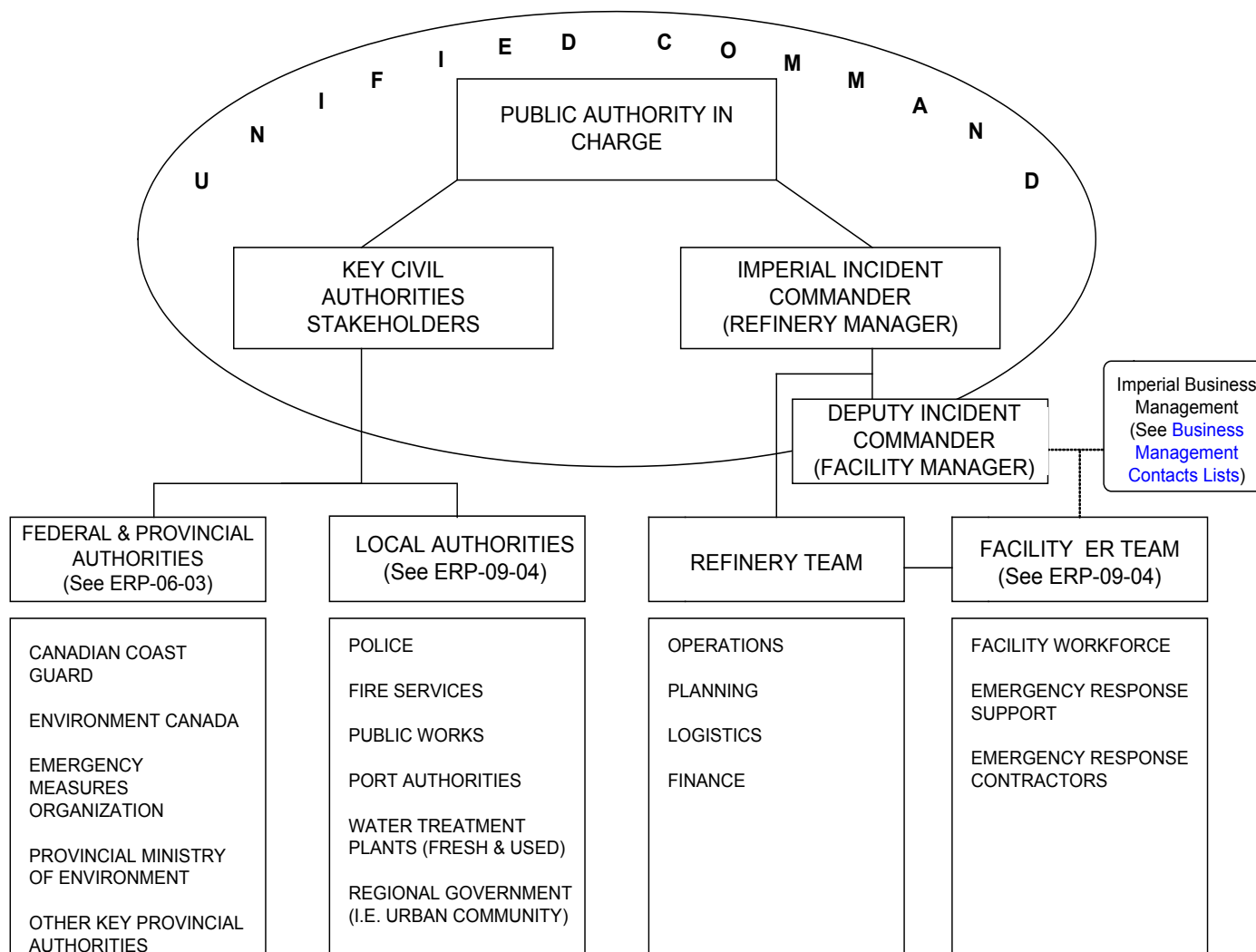


SECTION 04.02: General Response Procedures
 Team Organization

Team organization for an Imperial Facility Emergency Response Team

On its own Facility but where the Refinery decides to manage the emergency situation at a Refinery connect Facility

This would also apply to a written ER arrangement with another/adjacent operator responding on our behalf to our Facility (i.e. sub "Operator" for "Refinery")



SECTION 04.02: General Response Procedures
Team Organization

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TITLE **Imperial Facility - Emergency Response Plan**
SECTION 04: General Response Procedures
SUBJECT 03: Response Principles and Key Tactics

SUMMARY

An Emergency Response Plan is normally Facility specific. However, there are common principles that are applicable to any emergency situation. In many cases specific contingency plans are the same, regardless of the Facility. Listed are general principles and common key tactics, which could apply to any emergency situation. All Facility Response Team members should be familiar with these principles and tactics.

EMERGENCY RESPONSE PRINCIPLES

Within Imperial Oil, there are three general principles applicable to all emergencies. The first two are well known to Emergency Organizations as well as all responders: "Get Help" before undertaking a response action and have a good "Response Plan" based on the specific risks of that specific emergency situation being responded to. The other is the use of the "Disciplined Approach", which is used by Imperial Oil, as well as many other public and private emergency response organizations.

"Get Help" before undertaking any other response action

Public history reveals that many emergency response situations worsened or went out of control because responders thought they could handle the situation by themselves. The fact is that, unless you are 100% sure you can control the emergency situation, the first and immediate step is to call for help first. This principle is key whether it is rescuing someone, fighting a fire or undertaking any [release](#) response activities. The first critical objective for any responder is to Protect Human Life, including their own. Securing additional help becomes paramount before doing any other response task.

Use of the "Emergency Response Plan"

A comprehensive Emergency Response Plan that takes into account the potential risks a facility could be exposed to will ensure the best possible state of emergency preparedness for the facility. An up-to-date ER Plan will identify ER Team(s), specific contingency plans, response equipment and resources that can deal with the identified facility risks. The ER Plan should also include a Team Training and Exercising Plan.

ERP-08 section provides specific contingency plans, with an action step checklist for each plan. The activities listed on the checklists, although numbered in sequence, will not always apply and should not necessarily be executed in that sequential order. Steps listed primarily act as a reminder to the responder and can also be used, when filled out, as documentation of the initial response activities and for possible use later on. Responders must "print off" a blank checklist and use in an emergency situation.

SECTION 04.03: General Response Procedures
 Response Principles and Key Tactics

STATUS ✓ OR N/A	ACTIVITY	INITIALS	TIME COMPLETED
--------------------	----------	----------	-------------------

The first column (status or N/A) allows the responders to choose (✓) or refuse (N/A) the activity; the last two columns are there to help track and document the response activities. Furthermore, at the bottom of the first page of each contingency plan you will find what is needed to document the identification of the emergency situation.

Incident : _____ Facility: _____ Date : _____

This contingency plan section, properly completed, will greatly help document your response activities. It will also be a very important document should there be, regardless of the reason, a court action intended.

Use of the "Disciplined Approach"

In any emergency response, it is important to always take the necessary steps to:

1. Protect the Health and Safety of People
2. [Protect the Environment](#)
3. Protect Property

The use of the Imperial Oil's Disciplined Approach chart (Form [MF00650](#)) to analyze the situation, establish the critical objectives and determine the response strategies and tactics has proven itself to be an excellent tool. It has been adopted by Imperial Oil as its emergency response decision process tool. Remember that the prime objective in any response is to Protect Human Life including that of the responders. As such, it is strongly recommended, as a preliminary step, that a Safe Work Plan be determined ([ERP-04-04: General Response Procedures: Safe Work Plan](#)).

Effectiveness of any Emergency Response depends primarily on determination of a well thought out situation analysis and then the selection of the appropriate response and restoration strategies determined, in order to minimize incident severity. The Disciplined Approach process becomes the ideal tool to help manage all emergency situations.

OIL PROPERTIES AND BEHAVIORS

Before implementing any response tactic, it is important to know what are the physical properties of the material(s) we are dealing with, and also its behavior in the environment.

OIL PROPERTIES

Oil has different physical properties that need to be understood in order to select appropriate response strategies and tactics. There are four prime properties that need to be understood: Density, Viscosity, Pour Point and Flash Point.

- **Density:** is a measure of weight per volume. Specific gravity of the oil type(s) is as it relates to fresh water. Most oils are lighter than water, therefore they float on it.
- **Viscosity:** is a measure of resistance to flow at a given temperature. Viscosity is measured in centistokes (cSt) and the higher the number, the higher the viscosity, thus the material will be more resistant to flow.
- **Pour Point:** is a measured temperature at which the material pours as derived by a standard test method. If no temperature is indicated, the material pours easily.
- **Flash Point:** is a measured temperature at which point the material produces enough vapours to ignite when in contact with an ignition source.

The following table lists physical properties in relation to oil types:

Oil types	Density mg/l @ 15°C	Viscosity in cSt	Pour Point in °C	Flash Point in °C
Gasolines	0.73	0.8 @ 20 °C	---	< -40
Distillates	0.8 to 0.9	1.3 to 11 @ 40 °C	---	> 40
Bunkers	0.966 to 1.003	200 to 700 @ 50 °C	30	> 60
Propane (gas)	0.51 (liquid)	---	not available	-103
Butane (Butylene) (gas)	0.578 to 0.584 (liquid)	---	not available	-79 to -60
Benzene	0.75	---	---	-13 to -06
Natural Gas Liquid	0.3 to 0.58		not available	< -18
Condensates	0.63 to 0.71	<1 @ 38 °C	---	< -18
Brine	1.02 to 1.20	0.9 @ 38 °C		N/A
Asphalt	1.032	285 @ 135°C	not available	230
Crude	0.7 to 0.95	< 15 @ 20 °C	---	-20 to 93.3
Ethanol	0.79	1.22 @ 38 °C	---	16.6
Glycol	1.05 to 1.16	20 @ 38°C	---	111

SECTION 04.03: General Response Procedures Response Principles and Key Tactics

Properties can be found on **Material Safety Data Sheets (MSDS)** readily available at the facility for oil types handled on site. Under Gasoline, there are Motor Gasoline and Aviation Gasoline. Under Distillates, there are Diesels, Heating Fuels and Turbo A. Bunkers, most will float but some heavy bunkers will sink in fresh water. Marine Intermediate Fuels are a combination of Distillates and Bunker and to establish their physical properties, refer to the MSDS sheet. Natural Gas Liquid (NGL), Butane and Propane are liquefied petroleum gases (LPG) that is stored under pressure to keep their liquid state. Asphalt is a petroleum base used for paving asphalts. Crude is a mixture of all the above hydrocarbons with the exception of NGL and, as such, has the combined properties of the all above, from the lightest ends to the heaviest ends. Ethanol is an alcohol used as component added to Gasoline, required by some customers. Glycol is a general-purpose antifreeze used in vapor recovery units at some CFO Facilities.

OIL BEHAVIORS ON LAND

Oil **released** on land will have a tendency to evaporate, spread and migrate into the soil. This behavior will vary depending on the physical properties of the **released** oil. NGL, butane and propane liquids will vaporize (quicker for propane) when not under pressure. Hot asphalt, over 100° C, will more than likely boil over a vessel when water (i.e. Fire fighting) is put in contact with it, as water will boil becoming steam.

Evaporation

The product evaporation rate is important to consider in the early stages of a **release**, as the light ends will evaporate quickly, especially for the lower density products like LPG and gasoline. Evaporation rate is a factor of the **release** surface area, wind speed and temperature. While evaporating, vapours from lower flash products create a risk of fire and explosion. Vapours are heavier than air and will accumulate in low-lying areas.

Spreading

Spreading rate depends mainly on the quantity **released**, product viscosity and to some extent the temperature which could affect the Pour Point. Spreading of LPG and gasoline will generate more and more potentially explosive vapours as the **release** surface area increases. Terrain conditions will also affect the spreading; as the gradient (movement is faster on steeper slopes) and soil porosity and surface roughness will reduce the spreading in comparison with a smooth (i.e. asphalt) area.

Infiltration

Soil infiltration rate is impacted by two major factors: type of soil and the viscosity of the product involved. The lighter the product, the more it will penetrate into the soil. To the same extent, penetration will vary with the soil type: soil infiltration will be

deeper and faster in gravel and sands whereas soil penetration is much less in clay or silt. Water (i.e. groundwater) will provide a barrier to soil penetration by the oil.

Winter conditions

In the winter months, soil might be frozen with the presence of ice and snow on the ground. Soil will be much less permeable in wintertime and ice will also limit infiltration. On the other hand, the presence of snow will act as an excellent absorbent material and will still allow for evaporation of light ends. However, if the snow absorbs all **released** material, it will slow down the evaporation rate process, but will reduce the probability of the presence of potential explosive vapours.

OIL BEHAVIORS ON WATER

As with land, the oil **released** on water will also have a tendency to evaporate, spread and disperse into the water column. This behavior will vary depending on the physical properties of the spilled oil. Butane and propane will vaporize from their liquid stored state when not under pressure. However, ethanol and glycol will mix with water.

Evaporation

The evaporation rate is important in the early stages of a **release**, as the light ends will evaporate quickly. This is particularly true for the lower density products like LPG and gasoline. The evaporation rate is a factor of the surface area, wind speed and temperature (more so of the water than the ambient temperature). While evaporating, lower flash product will create a risk of fire and explosion.

Spreading

The rate will depend mainly on the quantity **released**, product viscosity and, to some extent, the temperature which could affect the Pour Point. Spreading of gasoline will generate more and more potentially explosive vapours as the **release** surface area increases. Generally the spreading of oil on water versus land as the current and wind conditions move the product away from the source of **release**.

Dispersion

The product density of the product involved and the amount of mixing energy of the water motion will influence the rate of dispersion into the water column (favours lighter oils). Mixing factors are generally much less in small bodies of water (lakes and rivers). Ethanol and Glycol will however disperse faster into water than oil products.

SECTION 04.03: General Response Procedures
Response Principles and Key Tactics

Winter Conditions

In the winter months, the water might be frozen and have snow on the surface. In some instances, oil released in these conditions will behave the same way as on land during winter. However, should oil find its way under the sheet of ice and enter the body of water (stream, lake or river), it will move under the ice with the current. As most oils are lighter than water, oil will float underneath the ice and get trapped along the way under the ice wherever the ice is uneven or it may infiltrate into any ice cracks.

GENERAL RESPONSE TACTICS

In emergency situations, the selection of the proper response strategies and tactics depends on the evaluation of the situation at hand and the critical objectives that have been established, per the Disciplined Approach. However, there are general tactics that apply to emergencies involving petroleum products. Should more tactical information, be required, responder can refer to the Transport Canada's 2012 edition of the "**Emergency Response Guidebook**", guide #128, page 196 for oil and guide # 115 page 171 for LPG. Direct Internet access to this manual via Transport Canada's site @ <http://www.tc.gc.ca/media/documents/canutec-eng/ERG2012.pdf>

FIREFIGHTING TACTICS

Firefighting poses high risk to personnel who do not have the proper fire training. If not trained in firefighting techniques, "evacuate and retreat" - call the local Fire Dept. is the best tactic. In every fire situation, the first action should always be to call your Fire Department. Petroleum fires are difficult to be extinguished with water and require specialized training. Smaller fires may be extinguished with dry chemical agents, (used in fire extinguishers) or the use of foam, properly applied by trained individuals.

In all instances:

- **Call your Fire Department**

Small Fires

A small fire is one that can be extinguished with a fire extinguisher. Generally speaking, this would be a fire associated with small amounts of petroleum product, an equipment fire or small physical structural fires. Always have someone else call the local Fire Department when attempting to fight the fire with an extinguisher. Only attempt to put out the fire if you have had proper training on facility fire extinguishers to be used. Ensure that you stay up wind and NEVER put yourself at risk.

Stop and Think first. If it can be done safely:

- **Upwind, attack the fire with a fire extinguisher**

Large Fires

Fighting large fires require firefighting expertise, specialized equipment and a relatively large quantity of appropriate fire fighting materials. Under **NO** circumstances shall anyone try to fight a large petroleum fire unless a specific contingency plan has been developed and facility personnel are properly trained. That specific plan must contain the trained personnel, required quantity of water, quantity and type of foam, equipment and its location in relation to the vessel on fire. Large fires include major - **release** fires, tank fires, tank truck or tank car fires. Always call your Fire department. If you have concern about current large fire risks at your facility, call your Emergency Preparedness Advisor who can assist facility to develop appropriate site Fire Plans, in advance of any situation.

In each circumstance:

- **Call your local Fire Dept**
- **Use a detailed contingency firefighting plan only if one has been developed and the Facility has properly trained people that firefight, as identified in plan**

RELEASE ON LAND RESPONSE TACTICS

Gasoline release

Gasoline is highly flammable and evaporates quickly. Vapours generated are heavier than air and will accumulate in low spots, like ditches. Spreading favours rapid evaporation but unfortunately also increases the chances of finding an ignition source.

Accumulated **release** quantity will generate explosive vapours, therefore:

- **Shutoff or remove all ignition sources and establish a safety perimeter**
- **Keep upwind and if evaporation is rapid (**release** is smaller) let evaporate or proceed to recover the **released** product only when safe to do so**

Distillates release

These products are not highly flammable at normal ambient temperatures and do not evaporate quickly. Should ambient (outside) temperatures be above 38 °C, monitor the explosivity and apply the gasoline tactics, if appropriate.

In all other circumstances, containment is the thing to do:

- **Shutoff or remove all ignition sources and establish a safety perimeter**
- **Upwind and proceed to recover the **released** product when safe to do so**

SECTION 04.03: General Response Procedures
Response Principles and Key Tactics

Crude release

Product is highly flammable and the light ends evaporate quickly. Vapours generated are heavier than air therefore will accumulate in low spots, like ditches. Over time, this product will get thicker and will become more viscous. It will hardly penetrate the soil.

Accumulated quantity will generate explosive vapours, therefore:

- **Shutoff or remove all ignitions sources and establish a safety perimeter**
- **May contain H₂S, need to check and monitor**
- **Let the light ends evaporate if nothing at risk or upwind suppress vapours with foam; then proceed to recover released product when safe to do so**

Bunker and asphalt release

These products are not very flammable. If released, these products will get thicker as their temperature lowers and they will become more viscous. They will not evaporate nor generate flammable vapours and will hardly penetrate the soil.

Containment becomes the thing to do:

- **Shutoff or remove all ignition sources and establish a safety perimeter**
- **Upwind, proceed to recover the released product**

Butane and propane and NGL release

These products are highly flammable and evaporate when not under stored pressure. Vapours generated are heavier than air therefore will accumulate in low spots, like ditches. Spreading favours rapid evaporation but unfortunately increases the chances of the vapour cloud finding an ignition source. Vapours may be harmful or fatal.

When large releases occur (from a pipeline as an example), only knowledgeable and trained personnel should be used to mitigate the release and could take more aggressive tactics than bolded below i.e. Venting, Flaring and Igniting the vapour cloud.

In all circumstances avoid contact with the generated vapours. Basic tactics are;

- **Shutoff or remove all site ignition sources and establish a safety perimeter**
- **Evacuate all personnel on site to a "Safe Haven"**
- **Warn the community (i.e. via Fire Dept or other means)**
- **Allow the material to evaporate**
- **If trapped or accumulated, have vapours dispersed with water fog**

Ethanol release

Product is flammable at normal ambient temperature and does not evaporate quickly. Should ambient temperature be above 10°C, monitor the explosivity and apply gasoline tactics, if appropriate. Prevent releases from entering sewers, watercourse or low areas.

Accumulated quantity could generate explosive vapours, therefore:

- **Shutoff or remove all ignition sources and establish a safety perimeter**
- **Outside temperature above 15 °C, upwind suppress the vapours with foam, proceed to recover the released product when safe to do so**
- **Outside temperature below 15 °C, upwind proceed to recover the released product when safe to do so**

Glycol release

This product is not highly flammable at normal ambient temperatures and does not evaporate quickly. Prevent releases from entering sewers, watercourse or low areas.

Containment becomes the key thing to do:

- **Shutoff or remove all ignition sources and establish a safety perimeter**
- **Upwind, proceed to recover the released product**

Winter conditions

Winter conditions will normally make releases on land easier to control and manage. LPG and especially Butane will evaporate very slowly in temperature below zero degree Celsius. However, no change in above response tactics.

RELEASE ON WATER RESPONSE TACTICS

Gasoline release

Products are highly flammable, float on water and evaporate quickly. Vapours generated are heavier than air and could be trapped under or around docks and along shorelines. Released gasoline spreads and evaporates quickly, however this will increase the chances of finding an ignition source. It will also partly disperse in the water column. In most cases, evaporation is the proper strategy unless people are at risk

Release generates explosive vapours, therefore approach release from an upwind position:

- **Shutoff or remove all ignition sources and establish a safety perimeter**
- **Do not contain, rather disperse the vapours with water fog**
- **If trapped and accumulated, water flush if safe to do so and let evaporate first and only proceed to recover the released product if safe to do so**

Distillates release

SECTION 04.03: General Response Procedures Response Principles and Key Tactics

These products are not highly flammable, float on water and will not evaporate quickly. Released product will spread rapidly and will partly disperse in the water column. Containment is the proper strategy to protect environment and minimize cleanup costs.

- Establish a safety perimeter and shutoff or remove all open fires
- Contain the released product with booms
- Upwind, proceed to product recovery

Crude release

Product is highly flammable and the light ends evaporate quickly. Vapours generated are heavier than air and could be trapped under or around docks and along shorelines. Over time, product will get thicker and will become more viscous. It floats on water.

Accumulated quantity will generate explosive vapours, therefore:

- Shutoff or remove all open fires and establish a safety perimeter
- Let the light ends evaporate; if trapped and accumulated, flush with water and let evaporate or suppress the vapours with foam
- May contain H₂S, need to check and monitor
- Contain the released product with booms, once the light ends have evaporated
- Upwind, proceed to product recovery

Bunker release (specific gravity < 1)

These products are rarely flammable, float on water and do not evaporate. The lower the water temperature is, the more viscous bunker will become and less spreading will take place. Released bunker will generally stick to shorelines or any object. Containment is the proper strategy to protect environment and minimize cleanup costs.

Therefore:

- Establish a safety perimeter and shutoff or remove all ignition sources
- Contain the released product with booms
- Proceed to product recovery

Bunker (specific gravity > 1) and asphalt release

These products are rarely flammable and will partly or totally sink in water in a short period of time. The lower the water temperature is, the more viscous these products become and the faster they will sink. Cleaning up becomes the only strategy. A proper situation analysis developed with government agencies will help you define the appropriate clean-up tactics.

- Proceed to an appropriate and approved situation analysis

NGL, butane and propane release

These products are highly flammable and evaporate when not under pressure. Vapours generated are heavier than air and could be trapped under or around docks and along shorelines. Spreading favours rapid evaporation but unfortunately increases the chances of finding an ignition source. Vapours may be harmful or fatal.

In all circumstances avoid contacts with the generated vapours, therefore:

- **Shutoff or remove all area ignition sources and establish a safety perimeter**
- **Evacuate all personnel around [release](#) area site to a "Safe Haven", if required**
- **Warn the community (i.e. via Fire Dept or other means), if required**
- **Allow the material to evaporate**
- **If trapped or accumulated, disperse the vapours with water fog**
- **If trapped or accumulated, have vapours dispersed with water fog**

Ethanol and Glycol release

Ethanol is flammable at ambient temperature and will evaporate quickly where glycol is not highly flammable and does not evaporate quickly. Both will mix rapidly with water and probably could not be recovered in a large body of water.

Monitoring becomes the response tactic:

- **Shutoff or remove all ignition sources and establish a safety perimeter**
- **Advise owner of downstream water intakes of potential contamination**
- **Advise public authorities**
- **Keep analysing water quality until no more risks for consumption or use**

Winter conditions

Winter conditions can drastically affect response due ice and snow. When the:

1. Body of water is partially frozen with or without the presence of floating pieces of ice (which may act like an oil spill boom):
 - **Apply the same tactics as in the summer months**
 - **Pay particular attention to the safety of the responders**
2. Body of water is totally frozen on surface and no [released](#) material has found its way underneath the sheet of ice:
 - **Apply the same response tactics as for land [releases](#)**
3. Body of water is totally frozen on surface, but [released](#) material has found its way underneath the sheet of ice, as determined by the responders,
for gasoline, distillates and crude:
 - **Dig holes in the ice, downstream, to determine where the material is.**
 - **Cut, with a chainsaw, several 45° channel(s), at least one meter wide, at predetermined sites downstream from the flow of oil. These will act as booms for collecting the moving oil with absorbent material or skimmer.**

SECTION 04.03: General Response Procedures
Response Principles and Key Tactics

- **If gasoline vapours are present, apply response tactics used for land releases**
- **Try to identify where oil could be trapped and recover it.**
- **Monitor the water body closely in the springtime when ice breaks up.**

for NGL butane and propane:

- **Upwind, monitor (with appropriate air quality monitoring device) the watercourse downstream of the release for potential vapour releases.**
- **Apply the same response tactics as for summer months, where vapours are present.**
- **Butane will mostly remain a liquid. If water is applied, vaporization will probably increase.**

for ethanol and glycol:

- **Apply the same tactics as in the summer months.**



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 04: General Response Procedures
SUBJECT 04: Safe Work Plan

SUMMARY

The following procedure is used to ensure that all risks, associated with an emergency response activity, that have potential to create an unwanted impact on the safety or health of people, on property or on the environment, are identified and understood.

The existing [Canada Fuels Operations \(CFO\)](#) operational procedure, called «*Job Safety Analysis*» (JSA), is used to **identify risks** associated with tasks or activities that are not done frequently, or when the facility or operational conditions change. The purpose of the JSA is to **mitigate risks before the task or activity takes place**. This process is widely understood and utilized by CFO Facility operators to ensure safe and proper procedures are used when doing this type of work.

Refer to [PDM 1-04-31 Loss Prevention System® \(LPS\)](#)

Before an ER task is performed, conduct a specific Emergency Response "JSA" covering each critical response task considered and use in conjunction with the "Disciplined Approach" process. Special care and attention shall be given to:

- Standard Safe Operating Response Procedures,
- Potential product contamination exposures,
- Personal Protective Equipment to be worn,
- Air Testing and Monitoring Equipment,
- Identifying Medical Services, should an incident occur.

Standard Safe Operating Response Procedures

When petroleum products are involved in an emergency situation, it is paramount that emergency responders understand the characteristic of petroleum products and their properties that make them dangerous. Refer to [ERP-04-07: General Response Procedures: Health Hazards Information](#) for general information in this regard.

Proper safe response procedures shall be determined, for each critical response task, before that response action takes place and followed when they are being executed. For only one example: - The response task of transferring petroleum from one container to another or off the ground to a container. Responders shall first determine their overall resources and if safe to even attempt this task. Then determine, among other things, the; (i) responder experience - PPE, (ii) approach / wind direction, (iii) proper container bonding/grounding, (iv) area monitoring of LEL, (iii) back up / rescue responders.

SECTION 04.04: General Response Procedures
Safe Work Plan

Potential Product Contamination Exposures

Petroleum Products contain contaminants that are damaging to the health of people exposed to them. There are safety concerns in handling these products. Information on these exposures are documented within the Imperial Oil Material Safety Data Sheets (MSDS) readily available on site. Refer to ERP-04-07: General Response Procedures: Health Hazards Information for more information in this regard.

Personal Protective Equipment (PPE)

Every [Canada Fuels Operations \(CFO\)](#) Facility have established their "normal" operations site-specific PPE requirements based on an operating standard defined in PDM 1-04-06: Safety: Personal Protective Equipment. In emergency response situations, responders should be made aware of these site-specific "minimum" PPE requirements. However, when conducting the ER Job Safety Analysis process, "additional" responder PPE requirements **must** be re-evaluated to identify other PPE needs for that particular petroleum product response type, that is over and above the site "normal" ones.

Air Testing and Monitoring Equipment

In petroleum product response situations, responders could potentially be exposed to an explosion or inhalation safety risk that may be present. Before a safe response can be made, a safety perimeter must be established and continuously monitored to ensure that responders are not exposed to these risks and that the appropriate PPE is provided. It is important that proper air testing and monitoring equipment be used by trained operators to determine and measure both, the safe LEL (lower explosivity limit) responder perimeter delineation zone and, the potential for air contaminates exposure to the responders.
Refer to ERP-04-07.

Medical Services

In any emergency response situation, the safety of the Public and the responders becomes a paramount priority. The development and use of a Safe Work Plan is key to achieving this goal. However, incidents may still occur, and back-up Emergency Medical Services must be clearly identified in the Safe Work Plan determined. Refer to ERP-09-04: Appendices: Facility Specific «Contacts Lists».
NOTE: Access to section ERP-09-04 is Restricted to internal use only as it could contain public information, which is controlled under privacy regulations.



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 04: General Response Procedures
SUBJECT 05: Disciplined Approach to Emergency Response

SUMMARY

As no two emergency response situations are the same, responders must only take response action steps after first going through a good analytical and decision process. Public responder history has shown that, by taking action before doing an appropriate analysis of the situation has caused the situation to escalate and has endangered the life of responders and the public. To avoid this situation, Imperial Oil has developed an emergency response process called a "Disciplined Approach to Emergency Response". This process has also been adopted by the [Canada Fuels Association \(CFA\)](#) and the Canadian Chemical Producers Association (CCPA), as well as many public responders including the National Fire Chief Association.

Therefore, the use of a "Disciplined Approach to Emergency Response" chart process, reviewed mentally or on paper, **must** occur prior to proceeding with any action step described in the Specific Contingency Plans section (ERP-08).

"A DISCIPLINED APPROACH TO EMERGENCY RESPONSE" CHART.

Form is identified as: MF00650



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 04: General Response Procedures
SUBJECT 06: Response Escalation

SUMMARY

The decision to escalate the level of response to any incident lies with the Imperial Incident Commander (usually the Facility Manager or delegate) and the [Canada Fuels Operations \(CFO\)](#) Business Management involved. Should there be a need to escalate the response, the Imperial Incident Commander will immediately contact his [CFO](#) Business Management. ERP: «Support and Business Management Contacts Lists».

NOTE: Access to section ERP: «Support and Business Management Contacts Lists» is Restricted to internal use only as it may contain private information, which is controlled under privacy regulations.

Escalation could be limited to additional [CFO](#) resources, or could be expanded to add the total resources on Imperial which includes the involvement and resources of the [North America Regional Response Team \(NARRT\)](#) and [Strike Teams](#) along with the Imperial Oil "Emergency Support Group" (ESG)

ADDITIONAL BUSINESS UNIT RESOURCES

Within [Canada Fuels Operations \(CFO\)](#), there are several local Facility Teams. For a specific incident, [CFO](#) Business Management may, in consultation with the Imperial Incident Commander involved decide to support the response with other members of [Canada Fuels Operations](#). They may also bring in some additional specialized expertise through selected [CFO](#) members of a [NARRT Strike Team](#). [CFO](#) Business Management may also designate a replacement Imperial Incident Commander amongst the additional resources sent to the incident scene.

ESCALATION TO A REGION EMERGENCY RESPONSE TEAM

Due to it's magnitude, where an incident requires a significant amount of resources, Imperial Oil have in place [Strike Teams](#) to handle this escalation and that are required for the prolonged management of emergencies. If deemed necessary by [CFO](#) Business Management and the Imperial Incident Commander involved, they may call upon the [North America Regional Response Team \(NARRT\)](#) for this required support.

SECTION 04.06: General Response Procedures
Response Escalation

ACTIVATION OF THE NORTH AMERICA REGIONAL RESPONSE & STRIKE TEAMS

To activate [NARRT or Strike Teams](#), the Imperial Business Management unit shall call the [Terminal Operations Unit \(1-866-232-9563\)](#), requests the operator to [contact the Emergency Response Advisor](#), provide the caller's name and a call back number. An [Emergency Response Advisor](#) will return the call within 20 minutes and arrange for appropriate support or management of the emergency.

Once in possession of all pertinent information, the [Emergency Response Advisor](#) will then decide to mobilize all or part of [NARRT or Strike Teams](#), as is required for the situation.

Once activated, the [Emergency Response Advisor](#) will contact a [ESG Manager](#), and report the available information. Based on this information, it will then be up to the [ESG Manager](#) to determine the extent of the [Emergency Support Group](#) activation based on the incident magnitude.



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 04: General Response Procedures
SUBJECT 07: Health Hazards Information

SUMMARY

Basic health and safety information about the products most likely encountered in a [release](#) are available in the Material Safety Data Sheet (MSDS), which are readily available at the Canada Fuels Operations (CFO) Facility. In all circumstances, CANUTEC can also provide emergency response guidance. Even though Occupational Exposure Limits are recommended in the MSDS, the means of testing is not mentioned nor defined. However, the CFO (PDM) Procedures manual identifies the methods to be used to measure these exposures. Should additional health information be required, Imperial Medical Emergency Personnel are available. Other potential hazards associated with an emergency response are covered in the Facility Safe Work Plan.

MATERIAL SAFETY DATA SHEETS

Material Safety Data Sheets for the products handled are readily available in binders at all CFO Facilities. In addition, current copies are available from the PSIMS system available on the Imperial Intranet (<http://psims.na.xom.com/psims/main.asp>) site for Imperial employees or, is accessible to all via the Imperial Oil Faxback system, by calling 1-800-465-6737.

CANUTEC

CANUTEC is another source of pertinent information for product hazards and how to deal with them. You may refer to the 2012 Emergency Response Guidebook or phone CANUTEC at 613-996-6666 or by cellular *666. CANUTEC accepts collect calls.

OCCUPATIONAL EXPOSURE LIMITS

Under section four on the Material Safety Data Sheets detailed recommendations can be found on the product's Occupational Exposure Limits. Also noted are the recommendations of ACGIH (American Conference of Governmental Industrial Hygienists). Many regulatory agencies have regulated the ACGIH recommendations, for worker protection, however it is recommended this be verified with local and applicable regulations.

In PDM 3-23-03: Safety & Environmental – Personal Safety: Air Testing and Monitoring Imperial Oil defines what tools should be used to determine and monitor the level of contamination that emergency responders are or could be exposed to.

SECTION 04.07: General Response Procedures
Health Hazards Information

IMPERIAL MEDICAL EMERGENCY PERSONNEL

Imperial provides 24-hrs Medical Emergency and Industrial Hygiene Services related to the use of Imperial products by contacting the Terminal Operations Unit (TOU) at 1-866-232-9563

SAFE WORK PLAN

In all emergencies, health and safety hazards could be related to the hazardous products involved (see above information). However, the environment in which the emergency situation takes place is also a factor. All these environmental factors must be evaluated and appropriate safety measures taken i.e. like Personnel Protective Equipment. The process to identify those countermeasures shall be determined, as per the Requirements in ERP-04-04: General Response Procedures: Safe Work Plan.



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 04: General Response Procedures
SUBJECT 08: Public Affairs

SUMMARY

Imperial Oil Crisis Communications Guide states:

"An integral part of Imperial Oil's emergency response must be the timely development of appropriate and effective communications, both internal and external, which convey care and concern for the situation and provide relevant factual information."

APPROPRIATE AND EFFECTIVE COMMUNICATIONS

The Imperial Incident Commander (usually the [Canada Fuels Operations](#) Facility Manger or delegate) will advise his Imperial Oil Public Affairs resource ([ERP-06-02: Emergency Response Contacts and Resources: Other Imperial Emergency Response Resources](#)) when an incident from our operations has the potential of impacting our neighbors or the public in general.

Furthermore, as described in ERP-09-01, it is the ER Plan Owner's responsibility to maintain current the Facility Local Information Resources, in ERP-09-04 of this Plan. This allows the designate Imperial Oil's Public Affairs resource to support the Imperial Incident Commander in meeting our Imperial Oil communications commitment.

NOTE: Access to section ERP-09-04 is Restricted to internal use only as it could contain public information, which is controlled under privacy regulations.



TITLE	Imperial Facility - Emergency Response Plan
SECTION 04:	General Response Procedures
SUBJECT 09:	Delegation of Authority

SUMMARY

The Facility Manager, as owner of the Emergency Response Plan (ERP), has the authority to respond to any incident involving their Facility and becomes the Imperial Incident Commander.

AUTHORITY OF THE FACILITY MANAGER

The Facility Manager's authority levels are described in the Imperial Oil Delegation of Authority Guidelines (see PDM 1-21-03: Business Practices: Delegation of Authority Guideline). This allows the Facility Manager, acting as the Imperial Incident Commander, to activate enough emergency response resources to mitigate the impacts of the incident. Imperial Business Management ([Canada Fuels Operations](#)) will ensure that appropriate additional authority is delegated to the Imperial Incident Commander, as required, should a prolonged response be necessary to mitigate situations following any specific contingency plan that is activated.

AUTHORITY OF THE IMPERIAL INCIDENT COMMANDER

In the absence of the Facility Manager, the Imperial Incident Commander becomes the most senior employee at the Facility. In these cases, the delegated Imperial Incident Commander has the authority, acting as the Facility Manager, to implement the appropriate specific contingency plan. It will be up to Imperial Business Management ([Canada Fuels Operations](#)), as notified and per the activated specific contingency plan, to ensure appropriate authority be delegated to the Imperial Incident Commander, or to delegate someone with the appropriate authority as an Imperial Incident Commander.

SAP AND EMERGENCY SITUATIONS

The [Canada Fuels Operations](#) Manual (PDM) requires proper documentation, using the SAP ordering system, prior to ordering any materials or services. However, during an emergency, it may be impossible to follow the normal procedure. As such, there is a PDM procedure that specifically addresses this concern and it can be found in PDM 1-13-06: Materials and Services: Emergency Acquisitions.

SECTION 04.09: General Response Procedures
 Delegation of Authority

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TITLE **Imperial Facility - Emergency Response Plan**
SECTION 04: General Response Procedures
SUBJECT 10: Emergency Procedures to be posted

SUMMARY

The National Fire Code and some Provincial fire regulations, require Emergency Procedures instructions to be posted prominently in a Facility. This subject covers locations where the indicated prescribed forms shall be posting.

Office Building

Fire Emergency Procedures shall be posted, as applicable, on each floor and in several locations for larger buildings, but at least near the Safety Board or other prominent location. Also posted in these locations shall be the **Release Emergency Procedures** and the **Facility Specific «Posted Emergency Contacts List»**.

Warehouse

Fire Emergency Procedures and the **Release Emergency Procedures** shall be posted at each exit of the warehouse.

EMERGENCY PROCEDURES TO BE POSTED PROMINENTLY IN THE TERMINAL

Form identified as: Fire Emergency Procedures Rev. 1 : Dec. 2014 ([Fire](#)).

Form identified as: [Release](#) Response Procedures Rev. 1 : Dec. 2014 ([Release](#)).

Form identified as: Facility Specific «Posted Emergency Contacts List» ([ERP-09-05](#))



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 04: General Response Procedures
SUBJECT 11: Vessel Receipt Checklist/Report

SUMMARY

Canada Fuels Operations (CFO) have put several operating procedures and checks into place to prevent incidents from happening while a Facility receives or loads petroleum product from/to marine vessels. These procedures are described in the sections of the CFO operating manual; PDM 02-09: Receipt - Marine and PDM 02-21: Loading - Marine.

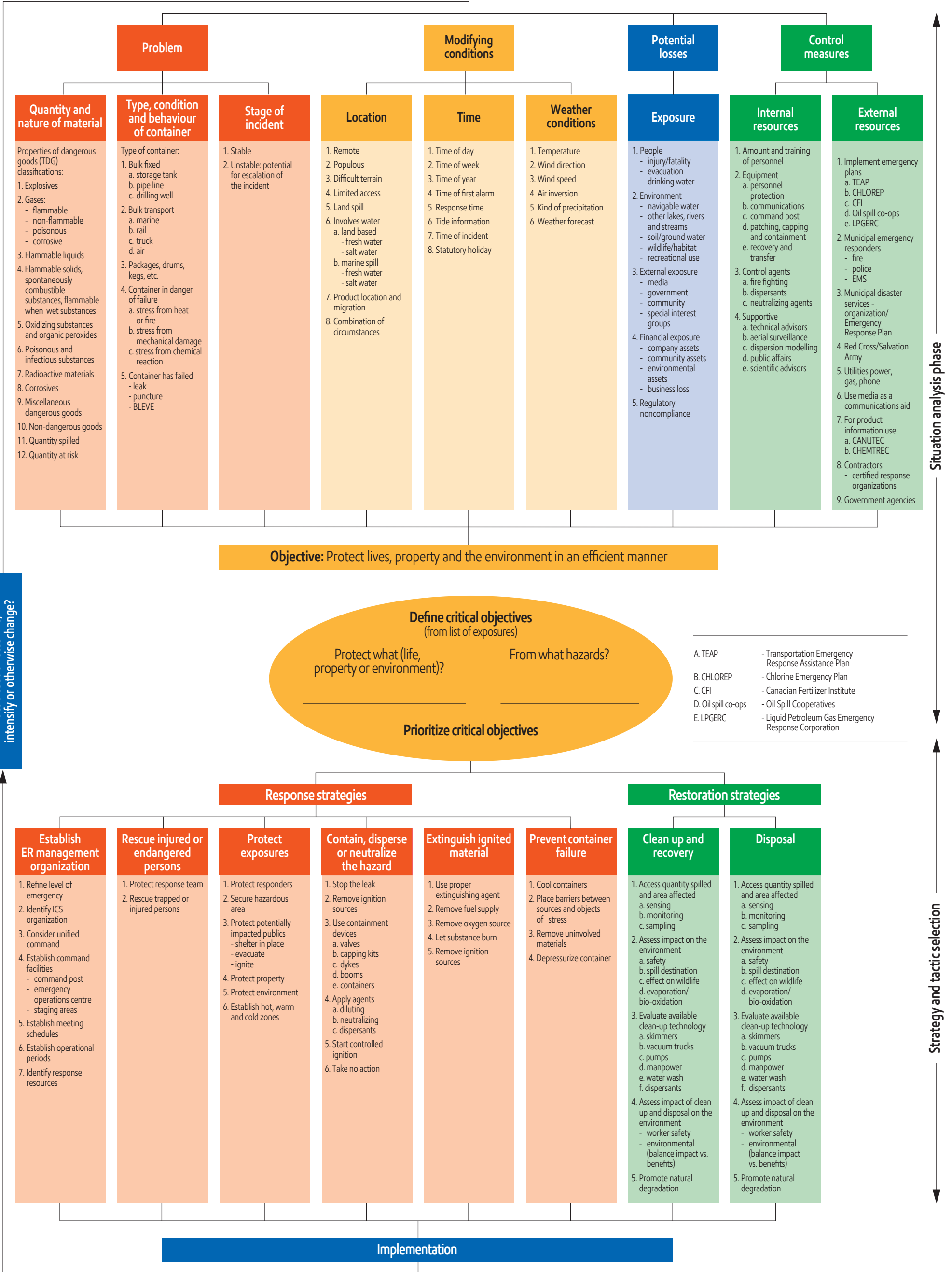
More specifically, those procedures are covered for marine receipts in PDM 02-09-04 with a form 0209F14: Vessel Receipt Checklist/Report and for marine loading in PDM 02-21-02 with a form 0221F01: Vessel Loading Checklist.





A disciplined approach to emergency response

A process to help protect lives, property, and the environment in an efficient manner





CFO - FIRE EMERGENCY PROCEDURES

In any FIRE emergency, you must :

- Ensure your own safety
- Call the Fire Department
- Call the Terminal Operations Unit (TOU) or **Operations** Control Center (OCC), if Facility is unattended
- Ensure the protection of People, Property and the Environment

1

Activate the Facility Fire Alarm

Ensure all on site personnel at the Facility are aware of the fire emergency.

2

Call the Local Fire Department

Call the Local Fire Department immediately.

3

Activate the Facility Crash Stop Buttons

Ensure all operational activities are stopped. *During a marine receipt, advise the ship to shut down the pump(s) immediately.*

4

Evacuate all on site personnel

Restrict all access to the Facility. Direct all trucks present to leave the Facility (if safe to do so) in the opposite direction from the one to be used by the incoming emergency vehicles. Request all other personnel on site to gather at the pre-determined assembly area.

5

Perform a proper head count to ensure everyone is accounted for

Bring the Facility Visitor's Log and the current Work Permits to ensure everyone is accounted for. If someone is missing and it is safe to do so, initiate a search; if unsafe, advise Fire Department of missing person(s) immediately upon their arrival. Re-direct all personnel to a safer area as needed.

6

Get all pertinent information about the fire

Take all communications equipment needed and obtain a description of the fire situation from the person who discovered the emergency.

7

Try to extinguish the fire, if safe to do so

Activate the appropriate "Fire" sections of the Facility Emergency Response Plan. Use the available fire-fighting equipment (extinguishers, water or foam monitor, etc.), if safe to do so.

8

Direct Emergency Responders to the fire; provide caution if needed

Inform the Responders on the location of the fire. Caution them on any special risks associated with the Facility and in relation to the emergency, if required.

9

Resume normal operations when there are no more potential risks

Give the "all clear" signal to people only when there are no risks remaining and they can resume their normal activities. This signal shall be given only by the Imperial Incident Commander (Facility Manager or designate).

In any Release emergency, you must :

- Ensure your own safety
- Ensure the protection of People, Property and the Environment
- Call the Terminal Operations Unit (TOU) or Operations Control Center (OCC), if Facility is unattended
- Take the appropriate actions (see below).

1

Stop the flow of product (if safe to do so)

Activate the Emergency Crash Buttons, turn off pumps, close valves, plug holes/cracks, etc. *During a marine receipt, advise the ship to shut down the pump(s) immediately.*

2

Eliminate Fire / Explosion Hazards

Shut off all potential sources of ignition and the main power supply, if warranted. Extinguish any open flame, if safe to do so.

3

Control Hazard Situation

Determine a Safety Perimeter. Advise all other persons working in the area to cease work, and direct them to a safe area. Control site accesses and evacuate, if necessary. Evaluate effectiveness of safety perimeter, using air-monitoring equipment.

4

Contain the Release

Activate the appropriate "Release" section of the Facility Emergency Response Plan. Block off drains. Close separator outlet valves. Dike product with absorbent booms, granular absorbent, snow, etc. Use available material, as necessary.

5

Evaluate the situation and get help, if warranted

Assess the situation using the Disciplined Approach and determine the need for support (Facility ER Team, Public Responders, ER Contractors, etc.). Escalate response level as appropriate.

6

Recover visible product / contaminated material

Use vacuum trucks, pumps or absorbent material, depending on the size of the release. Ensure all vehicles, pumps, containers, etc. are properly bonded and grounded prior to the transfer of product. Remove all contaminated material.

7

Co-operate in a Unified Command Structure

Co-operate with Public Authorities and keep Imperial Management informed. If news media becomes involved, provide facts only and avoid speculation.

8

Dispose of contaminated product / material

Arrange for contaminated material to be moved to an approved Imperial Oil disposal site, by a licensed carrier. Consult your CFO Regulatory/Environmental Advisor.

9

Resume normal operations when there are no more potential risks

Give the "all clear" signal to people only when there are no risks remaining and they can resume their normal activities. This signal shall be given only by the Imperial Incident Commander (Facility Manager or designate).

TITLE **Imperial Facility - Emergency Response Plan**
SECTION 05: Roles and Responsibilities
SUBJECT 01: Imperial Incident Commander

RESPONSIBILITIES

The Imperial Incident Commander ([Canada Fuels Operations](#) Facility Manager / delegate) is responsible for the overall management of Imperial Oil's portion(s) of the response to the incident.

Key responsibilities (as appropriate to the specific incident) include:

- Clarifying Imperial's role and responsibility within the response.
- Establishing an effective interface with the other stakeholders.
- Identifying critical objectives for the response.
- Reviewing and approving all response plans.
- Ensuring effective integration of all external resources into one response plan.
- Ensuring effective communications with Imperial Business Management ([CFO](#)).
- Ensuring that the response has adequate staff and other resources to develop and implement the response plans.
- Ensuring that safety is well managed.
- Acting as Imperial's chief spokesperson with the public and media.
- Ensuring community concerns and claims are effectively managed.
- Ensuring appropriate documentation of all decisions, resources and activities.

SECTION 05.01: Roles and Responsibilities
 Imperial Incident Commander

Checklist **Date:** _____

IMPERIAL INCIDENT COMMANDER **Name:** _____

X – Completed
N/A – Not Applicable

STATUS X OR N/A	ACTIVITY	TIME COMPLETED
	Obtain incident information; establish follow-up communications timing and process with incident site.	
	Assess situation and determine incident objectives and priorities	
	Activate required response resources : Facility Emergency Response Team See ERP-04-01 and ERP-06-01 Determine need to escalate the response See ERP-04-06	
	Notify Imperial Business Management (CFO) See ERP-06-01 Establish communications cycles.	
	Make all government agency notifications.	
	Establish communications procedures with contract and regulatory responders.	
	Establish a Command Centre in collaboration with external stakeholders.	
	Conduct assessment meeting and determine key priorities.	
	Establish meeting schedules, length of operating period, and daily planning cycle consistent with the schedules of all responders.	
	Review organization staffing to ensure adequacy and provision for relief.	
	Establish Unified Command and meet with key counterparts to clarify roles and responsibilities of each.	
	Clarify responsibility for incident investigation.	
	Clarify responsibility for business recovery / repairs to the facilities that resulted in the incident.	
	Determine any constraints that must be imposed on the response.	
	Approve Incident Action Plans.	
	Keep Management informed of the status of the control and/or response operations.	
	Review and approve press releases and statements.	
	Ensure safety of all operations.	
	Document all actions (ICS 214).	

SECTION 05.01: Roles and Responsibilities
Imperial Incident Commander



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 05: Roles and Responsibilities
SUBJECT 02: Facility Workforce

ROLES AND RESPONSIBILITIES

The [Canada Fuels Operations \(CFO\)](#) Facility workforce is responsible to immediately initiate the operational response to control the incident and then work under the directives of the Imperial Incident Commander:

- Initiates operational response.
- Assesses the situation and determines if Facility ER Team is needed.
- Activates the Facility ER Team as per ERP-04-01.
- Briefs the Imperial Incident Commander (Facility Manager /delegate).
- Executes tasks as delegated by the Imperial Incident Commander (Facility Manager /delegate).
- Reports progress and issues at stake to the Imperial Incident Commander (Facility Manager /delegate).
- Ensures adequate records are kept, including a personal log.



TITLE	Imperial Facility - Emergency Response Plan
SECTION 05:	Roles and Responsibilities
SUBJECT 03:	Emergency Response Support

ROLES AND RESPONSIBILITIES

Emergency Response Support is responsible to provide technical and managerial support to the Imperial Incident Commander (Facility Manager /delegate):

- Responds to any request from the Imperial Incident Commander.
- Provides phone or on-site assistance, as required.
- Helps assess the situation in determining if Facility ER Team can provide enough response resources and makes recommendations to the Imperial Incident Commander.
- Executes tasks as delegated by the Imperial Incident Commander.
- Supports the Imperial Incident Commander with recommendations as to tactics to best accomplish response strategies and meet response objectives.
- Supports the Imperial Incident Commander with liaison with local government(s), as required.
- Evaluates the impact of the incident, if deemed necessary.
- Recommends follow-up activities once the urgency phase is over.
- Ensures adequate records are kept, including a personal log.



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 05: Roles and Responsibilities
SUBJECT 04: Emergency Response Contractors

ROLES AND RESPONSIBILITIES

Emergency Response Contractors are responsible for executing tasks as delegated by the Imperial Incident Commander (Facility Manager /delegate):

- Responds to the Imperial Incident Commander when requested.
- Executes the Specific Contingency Plan activated under the guidance of the Imperial Incident Commander.
- Prepares an operational response plan (Certified Marine Response Organization only) to be approved by the Imperial Incident Commander.
- Executes tasks as delegated by the Imperial Incident Commander.
- Reports progress and issues at stake to the Imperial Incident Commander.
- Ensures adequate records are kept, including a personal log.



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 06: Emergency Response Contacts and Resources
SUBJECT 01: Facility Emergency Response Resources

SUMMARY

This section documents all required Canada Fuels Operations (CFO) Facility Emergency Response (ER) Resources needed to respond effectively to an emergency, for which this CFO Facility must have specific contact lists for, as appropriate, within their ERP. This information is contained in section ERP-09-04: Appendices: Facility Specific «Contacts Lists», however access to section ERP-09-04 is Restricted to internal use only as it could contain private information, which is controlled under privacy regulations. In the event of an emergency, Externals holding this ER plan, can obtain information on these Resource contacts by calling either the Facility Manager, or for;
Terminal Facility Operations - Terminal Operation Unit (TOU) at **1-800-279-8047** or,
Pipeline Facility Operations - Operation Control Center (OCC) at **1-800-372-9597**.

Information found in this section covers:

- The Facility Emergency Response Team members
- The Facility Public Responders and other Local ER Resources
- The Facility Local Information Resources
- The Facility Posted Key Emergency Response Contacts

Facility Emergency Response Team Members

CFO has numerous Facility ER Teams, all capable of dealing with operational type emergencies. Team activation procedures are outlined in ERP-04-01. Facility ER Teams are made up of the following components, as appropriate and as listed on Facility site specific contact lists:

- An Imperial Incident Commander (Facility Manager /delegate) and Team members from the Facility Workforce (employees and/or contractors)
- Land [Release](#) Emergency Response Contractor(s), under agreement with Imperial.
- Marine [Release](#) Emergency Response Contractor(s) or Marine Response Organizations (ROs), under agreement with CFO.
- Emergency Response Support made up of Imperial employees with different fields of expertise and who have Advisor roles within the corporation.
- CFO Business Management, whose role is to manage the Division in which this Facility resides.

SECTION 06.01: Emergency Response Contacts and Resources Facility Emergency Response Resources

Public Responders and other Local ER Resources

Local Public Authorities have Emergency Response Resources that could be critical for mitigating consequences of an incident that could occur at this Imperial Facility. Also, federal, provincial or municipal regulations often require notification of Public Responders in the case of an emergency. As an example, the Dangerous Goods Regulation requires the Police Department to be advised.

Facility listings required are, typically but not limited to:

- Municipal Police, Fire Departments and Public Works Departments
- Local Port Authorities in the case of a Marine Facility
- Local Medical Services like Hospitals, Ambulances and Medical Clinics
- General Service Contractors who could supply heavy type equipment, like backhoes, vacuum trucks, additional manpower, special services, etc.
- Aeroplanes and Helicopters that may be required should an over-flight be needed to monitor the extent of a [release](#), as an example.

Local Information Resources

These Facility resource listings may be required to communicate with the general public, through political organizations, media, special-interest groups, businesses or others. Identification is essential to the Public Affairs Advisor (the Information Officer during a crisis) and for the Imperial Incident Commander (Facility Manager / delegate). The listing also provides local additional communications resources, which could be used to support the Public Affairs Advisor during and after an Incident.

- Key Local Members of Parliament, like the Mayor as well as the Facility's District Representative(s) for your municipality. For the Federal and Provincial levels, a list the members of Parliament in the electoral circumscription(s) of the Facility.
- Local Media represented in your area: television networks, radios and newspapers.
- Local Special-Interest Groups like environmental groups, First Nations organizations, etc., which are present in the area.
- Local Media Support Resources are support resources in the Facility area that could be very helpful to a Public Affairs Advisor when dealing with a Facility incident.

Facility Posted Key Emergency Response Contacts

These Key Emergency Response contacts posted in this facility are for any type of emergency that could occur at the facility. Even though the list is not comprehensive, it provides enough internal and external ER contacts to ensure an appropriate response even if the detailed contacts lists (as provided in this ERP) are not available.

See [ERP-09-05: Appendices: Facility Specific «Posted Emergency Contacts List»](#).



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 06: Emergency Response Contacts and Resources
SUBJECT 02 : Other Imperial Emergency Response Resources

SUMMARY

This section documents contact numbers for other Imperial Emergency Response Contacts within Imperial including:

- [NARRT \(North America Regional Response Team\) & Strike Teams Activation Procedures](#)
- Corporate Security
- Medical or Industrial Hygiene Assistance
- Public Affairs
- Employee Assistance Program

NARRT & STRIKE TEAM ACTIVATION PROCEDURES

To summon the [NARRT \(North America Regional Response Team\) & Strike Teams](#) support, call [the Terminal Operations Unit \(1-866-232-9563\)](#), requests the operator to [contact the Emergency Response Advisor](#), provide the caller's name and a call back number. An [Emergency Response Advisor](#) will return your call and arrange appropriate assistance.

CORPORATE SECURITY

To obtain support from the Corporate Security people for advice and guidance in a security type incident, call any one of the Corporate Security Advisors. For specific contact numbers, please refer to [ERP: «Support and Business Management Contacts Lists»](#).

NOTE: Access to section ([ERP: «Support and Business Management Contacts Lists»](#)) is Restricted to internal use only as it could contain private information, which is controlled under privacy regulations.

SECTION 06.02 : Emergency Response Contacts and Resources
Other Imperial Emergency Response Resources

MEDICAL OR INDUSTRIAL HYGIENE ASSISTANCE

To request medical or industrial hygiene assistance, call [the Terminal Operations Unit \(1-866-232-9563\)](#) and request the [operator](#) to page the Medical or Industrial Hygiene Advisor on call and provide your name and a callback phone number. A Medical or Industrial Hygiene Advisor will return your call and arrange appropriate assistance.

PUBLIC AFFAIRS

To obtain support from the Corporate Public Affairs people for advice and guidance in communicating with the Public and the Media, refer to ([ERP: «Support and Business Management Contacts Lists»](#)) for specific contact numbers.

NOTE: Access to section ([ERP: «Support and Business Management Contacts Lists»](#)) is Restricted to internal use only as it could contain private information, which is controlled under privacy regulations.

EMPLOYEE ASSISTANCE PROGRAM

To obtain psychological support in stressful situations, call the Employee Assistance Program for help and council to our employees or their family members.

Name/Position	Office
Employee Assistance Program (EAP)	
English (24 hours)	800-268-5211
French (24 hours)	800-363-3872



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 06: Emergency Response Contacts and Resources
SUBJECT 03: Federal and Provincial Authorities Contacts

SUMMARY

This section documents contact numbers for Federal, Provincial or Territorial authorities that might be useful either as Responders during an emergency, or where Federal, Provincial or Territorial regulations require them to be notified. [Refer to site specific 09 sections for other detailed contact lists.](#)

SECTION 06.03: Emergency Response Contacts and Resources
 Federal and Provincial Authorities Contacts

FEDERAL

Canadian Coast Guard	Name	Telephone	Other
British Columbia, Alberta, Saskatchewan, Manitoba, Yukon, NWT(24 hours)		800-889-8852	
Central (Ontario) & Arctic Regional Centre (24 hours.)		800-265-0237	
Quebec		800-363-4735	
NB, NS and PEI		800-565-1633	
Newfoundland		800-563-9089	

Canadian Nuclear Safety Commission	Name	Telephone	Other
		613-995-5894	

Canadian Wildlife Services	Name	Telephone	Other
		800-668-6767	

Emergency Preparedness Canada	Name	Telephone	Other
Manitoba		204 983-3760	

Environment Canada	Name	Telephone	Other
BC 24 hour		604-666-6100	1-800-663-3456
Alberta (24 hours.)		800-222-6514	780-422-4505
Saskatchewan (24 hours)		800-667-7525	
Manitoba		204-944-4888	
Ontario Through the Spills Action Centre		800-268-0606	416-325-3000
Quebec		866-283-2333	514-283-2333
Nova Scotia, New Brunswick, PEI		902-426-6030	800-565-1633
Newfoundland		800-563-9089	709-772-2083
NWT. Nunivat		867-920-8130	
Yukon		867-667-7244	

Environmental Protection	Name	Telephone	Other
Manitoba		204 981-7111	

Fisheries & Oceans of Canada	Name	Telephone	Other
Pacific		604-666-0384	
Central & Arctic		519-383-1813	
Quebec		418-648-2239	
Maritimes		902-426-3550	
Newfoundland		709-772-4423	

SECTION 06.03:

Emergency Response Contacts and Resources
 Federal and Provincial Authorities Contacts

Transport Canada – Canutec	Name	Telephone	Other
Canada (24 hours.)		613-996-6666 613-992-4624	*666cell

Transport Canada – TDG	Name	Telephone	Other
Alberta (24 hours.)		780-495-5279	780-495-3810
Saskatchewan (24 hours)		780-495-5279	780-495-3810
Ontario (24 hours.)	Toronto Office	416-973-9820	
Ontario	Region Office	416-973-2989	
NewBrunswick, Nova Scotia, P.E.I.		800-565-1633	902-426-6030
Newfoundland		709-772-2083	
Quebec		514-283-5722	

SECTION 06.03: Emergency Response Contacts and Resources
 Federal and Provincial Authorities Contacts

British Columbia Provincial Authorities

(Canadian Environmental Emergencies Notification System)

Environment Canada	Name	Telephone	Other
		800-663-3456	
Ministry of Attorney General's Provincial Emergency Program	Name	Telephone	Other
		800-663-3456	

Health Ministry	Name	Telephone	Other
Nanaimo Health Area Chemical Spill – Civic impacts	Regional MHO	250-740-6988 250-755-6200	

Ministry of Environment	Name	Telephone	Other
Releases over 100 litres: P.E.P. (calls; B.C. WLAP Environment, et.al., Provincial) (24 hours)	Land Emergency Release Reporting only: provide details of land release	800-663-3456 250-387-5936	
Releases over 500 litres: WCB		800-661-2112 ext. 3100 (8:30 to 4:30 Monday– Friday)	604-273-3247 fax
		866-922-4359 (after hours and weekends)	

Ministry of Water, Land & Air Protection	Name	Telephone	Other
	Head Office	250-387-9955	

Provincial Emergency Program (P.E.P.) (24 hours)	Name	Telephone	Other
Land releases over 100 litres		800-663-3456 250-952-5898	

Workers' Compensation Board	Name	Telephone	Other
Releases over 500 litres		800-661-2112 ext. 3100 604-276-3100	
	Emergency reports	888-621-7233	
	After business hours / weekends	800-922-4357	
Chemical releases		604-276-3301	

SECTION 06.03:

Emergency Response Contacts and Resources
 Federal and Provincial Authorities Contacts

Alberta Provincial Authorities

(Canadian Environmental Emergencies Notification System)

Ministry of the Environment	Name	Telephone	Other
		780-442-4505	
	Accessible within the province (24 hrs.)	800-222-6514	

Emergency Management Agency	Name	Telephone	Other
(24 hours.)		800-272-9600	

Alberta Energy Regulators	Name	Telephone	Other
Under the “one window” system in Alberta, we are required to contact the AER and they will contact the required government agencies	(24 hours)	800-222-6514	780-422-4505 (outside province)

Environment & Sustainable Resource Development (ESRD)	Name	Telephone	Other
Main Floor, Great West Life Building 9920 108 Street Edmonton Alberta Canada T5K 2M4		877-944-0313	780-944-0313
	Toll Free	310-3773	

Alberta Workplace Health and Safety	Name	Telephone	Other
(24 hours.)		866-415-8690	

Occupational Health & Safety (Now Municipal Affairs)	Name	Telephone	Other
Telephone Council (will direct call to the appropriate person/department)		866-415-8690	Fax 780-422-3730

Sustainable Resource Development	Name	Telephone	Other
Fish & Wildlife	Sherwood Park	780-675-8215	
		780-675-8205	
Forestry	Sherwood Park	780-427-6807	
Fire Management	Sherwood Park	780-427-6807	

Dangerous Goods and Rail	Name	Telephone	Other
(24 hours.)		800-272-9600	

SECTION 06.03: Emergency Response Contacts and Resources
Federal and Provincial Authorities Contacts

Workers' Compensation Board	Name	Telephone	Other
Calgary		403-517-6000	403-517-6201 fax
Edmonton		780-498-3999	780-427-5863 fax

SECTION 06.03:

Emergency Response Contacts and Resources
 Federal and Provincial Authorities Contacts

Saskatchewan Provincial Authorities

(Canadian Environmental Emergencies Notification System)

Ministry of the Environment	Name	Telephone	Other
		800-667-7525	

Emergency Management & Fire Safety	Name	Telephone	Other
Regina		306-787-3774	

Saskatchewan Environment	Name	Telephone	Other
24 hours		800-667-7526	

Saskatchewan Environmental Protection Branch (SEP)	Name	Telephone	Other
Environmental Protection		306-933-6542	
Environmental Protection & Audit		306-787-5419	

Saskatchewan Energy & Resources	Name	Telephone	Other
Regina Office	Emergency	306-787-2502	
	General inquiries	306-787-2526	

Saskatchewan Minerals Sodium Sulphate	Name	Telephone	Other
		306-395-2561	

Occupational Health & Safety	Name	Telephone	Other
Regina		306-787-4496	

SECTION 06.03: Emergency Response Contacts and Resources
 Federal and Provincial Authorities Contacts

Manitoba Provincial Authorities

(Canadian Environmental Emergencies Notification System)

Ministry of the Environment	Name	Telephone	Other
	Call collect outside Winnipeg	204-944-4888	855-944-4888

Emergency Measures Organization	Name	Telephone	Other
(24 hours.)		204 945-4772	888-267-8298

Environmental Accident Reporting Line	Name	Telephone	Other
(24 hours.)		204 944-4888	855-944-4888

Manitoba Conservation, Petroleum	Name	Telephone	Other
(24 hours.)		204 945-2458	

Manitoba Conservation, Water Resources Branch	Name	Telephone	Other
		204 945-7344	

North West Territories & Nunavut Territorial Authorities

(Canadian Environmental Emergencies Notification System)

24-hour Spill Line	Name	Telephone	Other
		867-920-8130	

Yukon Territory Territorial Authorities

(Canadian Environmental Emergencies Notification System)

Environment Canada	Name	Telephone	Other
		867-667-7244	

SECTION 06.03:

Emergency Response Contacts and Resources
 Federal and Provincial Authorities Contacts

Ontario Provincial Authorities

(Canadian Environmental Emergencies Notification System)

Ministry of the Environment	Name	Telephone	Other
Spills Action Centre		800-268-6060	416-325-3000

Conservation Authorities	Name	Telephone	Other
	St. Clair Region	519-245-3710	
	Upper Thames	519-451-2800	
	Grand River	519-621-2761	
	Hamilton Region	905-525-2181	
	Halton Region	905-336-1158	
	Credit Valley	905-670-1615	800-668-5557
	Metro Toronto	416-661-6600	

Ontario Provincial Police	Name	Telephone	Other
(24 hours.)		888-310-1122	

Ministry of Consumer & Commercial Relations (Technical Standards and Safety Authorities)	Name	Telephone	Other
Through Spills Action Centre (24 hours.)		800-268-6060	
Ontario – Sudbury	Richard Tetreault, Senior Inspector (Sturgeon Falls)	705-753-6486	705-753-6505
Sarnia Products Pipeline:	All areas spill action centre	877-682-8772	
		416-734-3300	

Ministry of the Environment	Name	Telephone	Other
	All areas spill action centre	800-268-6060	
	Sarnia	519-336-4030	
	London	519-873-5000	
	Cambridge	519-826-4255	
	Hamilton – Gen. Inq.	905-521-7640	
	Halton Region	905-319-3847	
	Toronto	416-326-6700	

Workplace Safety and Insurance Board	Name	Telephone	Other
(24 hours.)		800-387-0750	

SECTION 06.03: Emergency Response Contacts and Resources
 Federal and Provincial Authorities Contacts

Quebec Provincial Authorities

(Canadian Environmental Emergencies Notification System)

Canadian Coast Guard	Name	Telephone	Other
		800-363-4735	514-283-2333

Ministry of the Environment of Quebec	Name	Telephone	Other
		866-694-5454	

Ministry of the Natural Resources	Name	Telephone	Other
		800-267-1420	

New Brunswick Provincial Authorities

(Canadian Environmental Emergencies Notification System)

Canadian Coast Guard	Name	Telephone	Other
Operations Centre		902-426-6030	800-565-1633 after hours
Vessel Traffic Services			506-636-4696

Ministry of Natural Resources	Name	Telephone	Other
		506-453-3826	506-444-4367 fax

Nova Scotia Provincial Authorities

(Canadian Environmental Emergencies Notification System)

Canadian Coast Guard	Name	Telephone	Other
Operations Centre		902-426-6030	800-565-1633 after hours

Workplace Health Safety and Compensation Commission	Name	Telephone	Other
	Inquiry Service	800-263-8466	

SECTION 06.03:

Emergency Response Contacts and Resources
Federal and Provincial Authorities Contacts

Prince Edward Island Provincial Authorities

(Canadian Environmental Emergencies Notification System)

Canadian Coast Guard	Name	Telephone	Other
Operations Centre		902-426-6030	800-565-1633 after hours

Newfoundland & Labrador Provincial Authorities

(Canadian Environmental Emergencies Notification System)

Canadian Coast Guard	Name	Telephone	Other
Marine Communications and Traffic Services Centre		709-772-2083	
	Accessible within province	800-563-9089	



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 06: Emergency Response Contacts and Resources
SUBJECT 04: Facility Other Contacts

SUMMARY

This section documents other important emergency contacts required for an emergency that could have an impact outside the boundaries of the Canada Fuels Operations (CFO) Facility and primarily an operating **pipeline unit**. These contacts are needed to respond effectively to an emergency, for which this CFO Facility must have specific contact lists for, as appropriate, within their ERP. A terminal will also require neighbouring community contacts noted herein, but to a much lesser extent than a pipeline operation.

This information is also available in section ERP-09-10: Appendices: Facility Specific «Surrounding Area Contingency Plan», however access to section ERP-09-10 is Restricted to internal use only as it could contain private information, which is controlled under privacy regulations. In the event of an emergency, Externals holding this ER plan, can obtain information on these Resource contacts by calling either the Facility Manager, or for; Terminal Facility Operations - Terminal Operation Unit (TOU) at **1-800-279-8047** or, Pipeline Facility Operations - Operations Control Centre (OCC) at **1-800-372-9597**.

Information found in this section covers:

- Pipeline Shippers / Producers Contacts
- Other Pipeline Companies / Co-ops Contacts
- Facility Neighbours Contacts - Terminals
- Pipelines Land Owners Contacts - Pipeline unit operations
- Pipelines Control Points - predetermine river access points to control [releases](#) from

PIPELINE SHIPPERS / PRODUCERS CONTACTS

CFO operates, especially in Alberta, several pipelines that different shippers and producers use to move their products. In the case of a pipeline emergency, CFO must advise these shippers and producers that the specific pipeline of concern might or will be shut down and for them to take appropriate actions, in order to mitigate any further incident escalation.

OTHER PIPELINE COMPANIES / CO-OPS CONTACTS

As CFO interact with several other pipeline companies, it is important that CFO advise them that a CFO operated pipeline might or will be shut down. Shutting down a pipeline might impact their activity and advising them could prevent another incident

SECTION 06.04: Emergency Response Contacts and Resources Facility Other Contacts

from occurring in their operations, or mitigate any further incident escalation. Various Co-ops resources and information are used in pipeline facility responses

FACILITY NEIGHBOURS CONTACTS - TERMINALS

These contact lists are required for Facility neighbours that immediately surround the Facility and that could be significantly impacted and require immediate notification from the Facility to ensure their timely shut down/evacuation, should it be necessary.

For **Distribution Facilities** (bulk storage and handling of petroleum products), in the case of a large gasoline **release** (highest risk) from a point source (i.e. petroleum tank storage area), Canutec recommends evacuation of up to 300 meters from that point source. As such, each Terminal facility must have a list of those specific neighbours, located within a 300 meter radius Emergency Planning Zone (EPZ) of a tank farm, or petroleum loading rack (if no tank farm) used to store/handle gasoline.

In most cases, the local authorities will determine public evacuation and they will contact local residents when advised by the Facility. However, the intention of this Facility Neighbours contact list is to determine and identify "specific" neighbours that would be "significantly" impacted and must be immediately notified by the Terminal Facility due significant risks associated. For example: if a close proximity adjacent business had potential ignition sources for gasoline vapours and that business must be immediately shut down to mitigate any further incident impacts. Or, if there are specific Heating Ventilation or Air Conditioning units within close proximity that people or businesses should immediately shut down to mitigate any impact on them.

PIPELINES LAND OWNERS CONTACTS

Pipelines operated by CFO run within pipeline Right of Ways (ROW) and are maintained under agreements, as required by regulations. A list of land owners and public facilities adjacent to these ROWs, are maintained to ensure, among other things, that they can be contacted in the event of a pipeline emergency. The extent of the neighboring contact list is also prescribed by various provincial regulations and can vary with the product being transported and the risks associated with that product. For pipeline operations, these lists are very large databases and are maintained as part an extensive Pipeline operation's Community Awareness and ROW maintenance program. As such, these lists are maintained outside of the ERP, in separate databases but are available to responders, from the Facility Manager, in the event of a pipeline emergency. Should a Pipeline operation store petroleum products, a contact list described in Facility Neighbours Contact List - Terminals (above) is also required.

CONTROL POINTS

CFO pipeline operations have identified control points on watercourses (rivers, and streams) where mitigation actions could be taken to control [releases](#) to those watercourses. A list of those control points, and details as predetermined, is located in this ERP.



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 07: Team Preparedness
SUBJECT 01: Emergency Response Team Skills Requirements

SUMMARY

This section documents the skills required by the Canada Fuels Operations (CFO) Facility ER Team personnel to perform tasks outlined in this Emergency Response Plan (ERP). The ERP skills listed are based on existing regulations and company policies, and are complementary to the core competencies required by personnel to operate this Facility. This training is assigned and tracked in WebCAT.

Emergency response situation skills, which are beyond the normal core operational ones, are added to core skills. These are; knowledge of containment, recovery, clean up and fire fighting techniques.

Each supervisor is responsible to ensure that their employees have the proper training plans assigned.

Annual exercises/simulations, described in ERP-07-02 will demonstrate responder capability to fulfill their responsibilities. Annual training must be provided to those people assigned Facility ERP response duties that cannot attend these specific exercises/simulations.

TRAINING RECORDS

The Facility Manager is responsible to ensure the facility staff has completed the training accordance with the overall CFO training management system. Records are available for review by regulators if required.

ALERTING AND ESCALATING

The objective for acquiring these skills is to ensure that Facility personnel, likely to be the first responding at the incident scene, know the ERP procedures for mobilizing members of the Facility ER Team and Public responders. Facility personnel also shall know the ERP procedures for escalating the level of response, should it be beyond the Facility capabilities and as is required. This skill is acquired by familiarizing oneself with the ERP-04-01 and 04-06 sections of this ERP. Facility personnel's proficiency for this skill is demonstrated through attendance and use at annual exercises/simulations.

DISCIPLINED APPROACH

The objective for acquiring this skill is to ensure that the Incident Commander (IC), usually the Facility Manager and/or senior delegate, knows how to use all aspects of the Disciplined Approach (DA). DA is a systematic and continuously applied process that

SECTION 07.01: Team Preparedness Emergency Response Team Skills Requirements

allows a lead responder to analyze the situation, determine the critical objectives to be achieved by the response, select the response and restoration strategies, and review the impact of these response actions undertaken (see ERP-04-05). The IC must be able to use this tool to define an effective Action Plan to respond to incident situations. The Facility Manager and/or senior delegate proficiency for this skill is demonstrated through leading use of the DA process for response actions taken at annual exercises/simulations.

Use of the Disciplined Approach is especially required when incident conditions are unfamiliar to responders or the incident occurs in an area unknown to the responders. However, use of the DA is still a highly recommended tool to be used when responding to incidents at a known facility operations, even when the action steps determined have been pre-determined by an ERP designed response action plan.

GENERAL RESPONSE PROCEDURES

The objective for acquiring this skill is to ensure that all Facility Emergency Response Team members are capable of applying Response procedures required to respond to any emergency that could occur at this Facility. This skill is acquired by familiarizing oneself with ERP-04-03 and all specific contingencies plans contained in the ERP sections 08 of this ER Plan. Each Facility Emergency Response Team member needs to know how to initiate the first critical steps for any emergency situation, without looking them up in the ERP. This ERP should be used only after these first critical steps have been completed, to ensure nothing has been forgotten. Facility personnel's proficiency for this skill is demonstrated through attendance and use at annual exercises/simulations.

ERP general response procedures, if followed, should be sufficient to effectively respond to the type of emergencies that this Facility would normally be faced with. Responders should also know how to request additional help, should it be required.

ICS 201 FORM (INCIDENT COMMAND SYSTEM)

The objective for acquiring this skill is to ensure that Facility personnel know how to compile and file information on the ICS 201 form. A completed ICS form becomes a key document describing the incident situation and its consequences, as well as being the final Facility documented record of the specific incident actions taken. In the event that the incident response level goes beyond Facility capabilities and requires escalation, this form will serve as the initial Action Plan. It will then be transferred to the relieving North American Regional Response Team, NARRT, Incident Commander and become input for their first ICS planning cycle in the continuation of the incident response management.

The ICS 201 form is found under ERP 08 Forms. Proficiency for this skill is acquired by reviewing the form information content and using it at annual exercises/simulations.

INTEGRATION PROCEDURES

The objective for acquiring this skill is to ensure that Facility Emergency Response Team members know how to integrate with Public Responders, other Business Partners and the North American Regional Response Team (NARRT), should this be required. Proficiency for this skill is acquired by familiarizing oneself with all sections of this ERP-03 and 04-02.

Imperial Oil uses the Unified Command approach described in section ERP-01-05. Every Imperial Incident Commander must understand these principles and work towards establishing a Unified Command whenever involved in an emergency situation.

KNOWLEDGE OF THE FACILITY EMERGENCY RESPONSE PLAN (ERP)

The objective for acquiring this skill is to ensure that Facility personnel are proficient in the use of this ERP in order to find needed information. Selecting the appropriate specific incident contingency plan can be accomplished by using this ERP's - Table of Contents links. After choosing a specific contingency plan, users can access other sections of the ERP directly from the checklist links. Proficiency for this skill is acquired by using this Facility ERP and knowing how to access the contents of it.

MEDIA COMMUNICATION

The objective for acquiring this skill is to ensure that someone at the Facility is capable of speaking to a Media representative and/or the general Public on behalf of Imperial Oil should an incident occur at the Facility. This skill can be acquired by directly attending appropriate courses organized by Imperial Oil Public Affairs Department and their consultants. The initial course is one day and the refresher course lasts half a day. All new Facility Managers require the initial Media training course. The frequency of retraining is that which is recommended within the Imperial Oil Public Affairs manuals.

The objective for acquiring this skill is to ensure that Facility personnel know how to make accurate and timely notifications required, both internally and externally. This skill is acquired by studying and becoming familiar with all ERP-03 sections.

ON WATER RELEASE RESPONSE TACTICS

The objective for acquiring this skill is to ensure that appropriate Facility Emergency Response Team members are capable of applying necessary watercourse (ocean, rivers, lakes) Response Tactics should any Facility [release](#) end up in a watercourse. This is required for Pipeline Facilities and also for Terminal Facilities defined as Oil Handling Facilities (OHFs) under the Canada Shipping Act, 2001. This skill is acquired by attending formal Industry or Response Organization courses or, appropriate public responder training courses. The self-study of manuals like CFA/ WCSS / CCG Oil Spill

SECTION 07.01: Team Preparedness
Emergency Response Team Skills Requirements

Response Field Guides, or other appropriate written materials, can also be used. Each Facility ER Team member needs a working understanding of the response tactics associated with containment, recovery, and protection of any watercourses at risk from a Facility [release](#).

Should Facility ER Team members feel uncertain about the right tactics to implement, request for help should be immediately made to CFO Business Management who would obtain support from the North American Regional Response Team, NARRT. NARRT members can support the response efforts and possess a higher level of training and experience in these tactics.

RESPONSE EQUIPMENT OPERATION

The objective for acquiring this skill is to ensure that all users (Facility workforce, ER contractors or Public responders) are knowledgeable in the safe operation of all ERP specific Facility Response Equipment that they are to use. Examples could be; using emergency shutdown systems, using gas detectors, using fire extinguishers (hand or 150/300 lbs.), operating required valves to initiate a fixed fire suppression (water or foam) system or monitor, deploying oil booms or oil recovery skimmers, using pumps, generators, etc.

Proficiency for this skill is demonstrated through the attendance of facility workforce at annual exercises/simulations and using Facility equipment. Invitation and verification of ERP designated external resources skills will be done when a chosen annual exercise/simulation contains steps that require externals to operate Facility equipment.

NOTE: It is **NOT** the objective to ensure proficiency of skills of Facility ER contractors or Public responders in the use of their own response equipment. This responsibility remains with Facility ER contractors and Public responders to train their staff on the proper use of their own response equipment being deployed.



TITLE **Imperial Facility - Emergency Response Plan**
 SECTION 07: Team Preparedness
 SUBJECT 02: Exercises

SUMMARY

Periodic exercising of Facility ER resources and ERP contingency plan scenarios helps achieve a high degree of capability within Facility ER Teams to effectively respond to an emergency. The table below describes the [Canada Fuels Operations \(CFO\)](#) Facility exercising program, outlining exercise types and test frequencies for each. Equipment deployment and Management type exercises, which test/verify all components of the ERP contingency plan selected, can be combined and held together. The process to document Fire Drills is identified in PDM 1-04-12. The process to document all other types of exercises (excluding contact verification) is identified in PDM 1-15-05.

<u>Type of Exercises</u>	<u>Frequency</u>	<u>Remarks</u>
Verification of contact information: <ul style="list-style-type: none"> External resources 	Annually	Capability to reach during and after business hours: <ul style="list-style-type: none"> the external resources.
Fire drill	Annually	Capability to evacuate the Facility in a timely fashion and to account for everyone present on the premises.
Deployment / utilization of response equipment	Annually	Capability to execute tasks described in this ERP with available ER equipment.
Management exercise, with or without equipment deployment.	Annually	Capability to effectively manage an incident scenario described in the ERP.
Emergency shutdown of a marine transfer (for marine dock sites only)	Annually	Capability to effectively stop a transfer operation during a marine load/receipt.

VERIFICATION OF CONTACT INFORMATION – EXTERNAL RESOURCES

This exercise type verifies the ability to reach external resources, like contractors and Public resources, during and after business hours. Preferably, during business hours for Public resources and Response Organization (ECRC or WCMRC) and after hours for local ER contractors. *There is no need to verify the 911 emergency number.*

FIRE DRILL

This exercise type verifies, at drill time, that all Facility and other personnel on site execute their ERP roles and responsibilities when a simulated fire is discovered. Anyone present must be accounted for and a timely evacuation of all must take place. Fire drill procedures and required documentation are found in [PDM 1-04-12: Safety: Fire Drill](#). The steps used to evacuate the Facility are found in ERP-08-06.

SECTION 07.02: Team Preparedness Exercises

DEPLOYMENT / UTILIZATION OF RESPONSE EQUIPMENT

This exercise type demonstrates and verifies that responders (Facility Workforce, ER contractor, Public Responder), assigned Facility equipment hand-on task(s) in this ERP, can safely operate the critical response equipment in an emergency situation. Examples could be; using emergency shutdown systems, using gas detectors, using fire extinguishers (hand or 150/300 lbs.), operating required valves to initiate a fixed fire suppression (water or foam) system or fire monitor, deploying oil booms or oil recovery skimmers, using pumps, using generators, etc.

It will not be necessary to exercise critical response equipment if assigned responders use this Facility critical equipment within their normal daily work procedures. For examples; If an assigned responder, in their normal course of work, is trained and several times a year uses a gas detector i.e. for Safe Work [Permit](#) purposes. Or, an assigned responder has, within the year, gone through a training session with a similar particular piece of response equipment and has demonstrated their capability to operate it. Or, where a Public Responder's role already has the expertise i.e. the operation of Facility Fire Extinguishers by local Fire Departments.

MANAGEMENT EXERCISE

This exercise verifies, through simulation, that each member of the Facility ER Team understands and can demonstrate their capability to effectively manage all steps of an ERP emergency contingency plan. This means the actual testing (without equipment deployment), as required, of the; (a) integration with other responders; (b) communicating and reporting, (c) executing of the complete applicable response step checklist procedures, (d) determining of responders comfort levels to adequately fulfilling their described roles and responsibilities through debriefing and, (e) examining of the Facility's current capability to respond to the emergency as stated within the specific contingency plan being tested. Phone calls should be placed to all checklist resources not in attendance to (a) test their availability and (b) familiarize Facility team with their current functions.

Regardless of the type of emergency, the [CFO](#) managing processes used is the same (ICS and Disciplined Approach). It is also important to exercise under a Unified Command structure and regularly invite Public Responders to participate in exercise simulations. Each applicable step of the ERP Specific Contingency Plan chosen needs to be executed from the beginning to the end. Please refer to PDM 1-15-05 for the process to be followed.

EMERGENCY SHUTDOWN OF A MARINE TRANSFER (FOR MARINE SITES ONLY)

This exercise verifies that both Facility personnel and marine Vessel's crews, involved in marine transfers, can perform and execute the proper sequence of communications required for an emergency shutdown of the transfer operation. This satisfies some

exercising requirements, under the Canada Shipping Act, 2001 for Oil Handling Facilities.



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 07: Team Preparedness
SUBJECT 03: Facility Emergency Response Equipment

SUMMARY

Canada Fuels Operations (CFO) facilities have both integrally designed and specific emergency response equipment (usually oil [release](#)) to respond to specific risk scenarios, appropriate for their Facility type and is identified in section 08 (specific contingencies) for each Facility. See [ERP-09-07: Appendices: Facility Specific «Inventory of ER Equipment»](#) for a Facility Specific ER equipment list. The ER equipment is categorized as follows;

- Facility integral designed ER equipment
- Facility Specific ER equipment

Facility integral designed ER equipment

Facility integral designed ER equipment, integral to Facility operation varies depending on Facility type. The operation, maintenance and testing of this equipment are covered under the PDM operating standard operating procedures manual, not this ERP.

The two CFO Facility operating types of integral designed Facility ER equipment is;

- Pipeline Facility «designed ER equipment»
- Terminal Facility «designed ER equipment»

Facility Specific ER equipment

Specific ER equipment varies depending on the specific risks and location of each Facility. A Terminal Facility has Standard ER Equipment (usually oil [release](#)) and could have Marine or appropriate additional land oil [release](#) response equipment also.

Pipeline Facility

- Pipeline Facility «Specific off-site ER Equipment» (required for every Pipeline)

Terminal Facility

- Terminal Facility «ER Equipment Standard» is standard site equipment required
- Terminal Facility «Specific additional site ER Equipment» is additional equipment to the «ER Equipment Standard» that may be required depending on site risks, requirements and operating environment. Is not necessarily required
- Terminal Facility «Specific Marine ER Equipment» is required at Marine Facilities only - dock [release](#) response.

SECTION 07.03: Team Preparedness
Facility Emergency Response Equipment

FACILITY STANDARD ER EQUIPMENT

Pipeline Facility «designed ER equipment»

CFO defines in the Canada Fuels Operations Procedures Manual (PDM) the types of integral designed Pipeline Facility «designed ER equipment» used, as appropriate:

- Critical Systems and Equipment,
- Block valves to isolate sections of the Pipeline
- Emergency Shut Down Devices to stop the operation of the Pipeline
- Fire Detection Devices at Pump Stations
- Leak Detection Devices that triggers an alarm

Distribution Facility «designed ER equipment»

CFO defines in the Canada Fuels Operations Procedures Manuals (PDM) the types of integral designed Terminal Facility «designed ER equipment» used, as appropriate:

- PDM 3-03-01 : Generic Critical Systems and Equipment List,
- PDM 3-21-05 : Fire extinguishers – Minimum Requirements,
- PDM 1-04-11 : First Aid Equipment Requirements,
- PDM 1-04-06 : Personal Protective Equipment Requirements,
- PDM 3-23-03 : Air Testing and Monitoring Equipment and Procedures.

Terminal Facility «ER Equipment Standard»

A standard was determined, for Terminals (Primary) and Bulk Fuel terminals (BFT) site operations. The standard is that oil [release](#) response equipment,

- listed under **Figure 1**, is the minimum quantity requirements and must be dedicated to ER and always be readily available to the identified operators. Should any of this equipment (i.e. absorbents) be consumed by an emergency response, all effort shall be made to replace this equipment within the same day
- listed under **Figure 1**; is the ER equipment standard and must not be changed unless site approval is obtained and documented, using the process identified in PDM 01-06-01: Management of Change: Process and Administration.
- that is used by Facility ER contractors responding to a Facility incident, should be provided by the ER contractor, as needed i.e. larger equipment, vacuum trucks, generators, their own PPE
- that is used during regular Facility maintenance activities (i.e. absorbent), is kept separately from the Terminal Facility emergency response equipment and in a different location.

SECTION 07.03: Team Preparedness
 Facility Emergency Response Equipment

Figure 1

<u>Description</u>	<u>** Terminal Quantity</u>		<u>** BFT Quantity</u>		<u>* Driver Quantity</u>
	<u>Min.</u>	<u>Max.</u>	<u>Min.</u>	<u>Max.</u>	<u>Min.</u>
Absorbent pads	50	2 bales	50	1 bale	---
Bags of absorbent material; type depends on specific site needs, if applicable	12	50	4	25	4
Absorbent socks (8' X 4")	4	8	4	8	2
Brooms	1	2	1	2	1
Squeegees	1	2	1	2	1
Aluminum shovels	1	2	1	2	1
Metal pail with grounding wire connection	1	1	1	1	1
Shallow metal pan with grounding wire connection	1	1	1	1	---
Heavy gauge plastic bags (or drum liners)	5	10	5	10	---
(205 L) drums with sealed covers - recovery	1	3	1	2	---
Safety cones	4	6	4	6	4
'Hazard/Danger' safety yellow tape rolls	1	2	1	2	---
Catch basin rubber mats (3'x3')	2	2	2	2	2
Pad wringer	---	1	---	---	---
Container of dry "Plug 'n Dyke"	1	1	---	---	---
Roll of duct tape	1	1	1	1	---
Over pack drum (If full drums on site)	1	1	---	---	---
<u>Additional Equipment for Terminals handling Asphalt and/or Bunker:</u>					
25 L metal pails or bags of sand	3	6	3	3	3
Metal pails (with lids)	2	4	2	2	2
Metal scrapers	1	2	1	1	1

* This is minimum equipment that must be available to drivers, even when terminal is unattended.

** Totals shown under Min. includes the quantities reserved for drivers, as indicated.

NOTES: - BFT stands for Bulk Fuels Terminal. Terminal stands for a Primary Terminal
 - Expectation is that, if a [release](#) occurs when terminal is unattended, the Terminal Operation Unit (TOU), via the pick-up driver, will assess the need for an operating contractor, terminal employee or ER contractor to attend site immediately.

SECTION 07.03: Team Preparedness
Facility Emergency Response Equipment

FACILITY SPECIFIC ER EQUIPMENT

Pipeline Facility «Specific off-site ER Equipment»

There is no one standard established for equipment, as off-site ER equipment is established on an individual operating pipeline basis and depends on the pipeline(s) route(s). Equipment is also obtained through contractors or Coops. A complete list is available in [ERP-09-07: Appendices: Facility Specific «Inventory of ER Equipment»](#).

Terminal Facility «Specific additional ER Equipment»

There is no one standard established for additional types of equipment. This ER equipment is established on an individual site basis and will depend on the operational risks identified within the area surrounding the Site and may or may not be required to compliment the Terminal Facility «ER Equipment Standard». It could also be obtained through ER contractors or Coops. A complete list is available in ERP-09-07 (link above), if applicable to that Facility.

Terminal Facility «Specific Marine ER Equipment»

There is no one standard established for equipment, as Marine ER equipment is established on an individual Marine Facility site basis and varies depending on the dock operations and the marine environment configuration. Equipment is also obtained through certified Marine Response Organizations and area Coops. A complete list is also available in ERP-09-07 (link above).



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 07: Team Preparedness
SUBJECT 04: Emergency Response Contracts, Bridging Documents
and Mutual Aid Agreements

SUMMARY

The Canada Fuels Operations (CFO) Facility Workforce handles most operational emergency response situations that may normally arise at the Facility. However, in larger or prolonged response situations, the combined Facility Workforce may not be sufficient to sustain their ongoing response efforts. To support the Facility in these situations, CFO have established ER contractor(s) standing agreements for specific emergency response services and Facilities. Additionally, in some cases, the Facility may support an area ER Mutual Aid Agreement, or may have an ER agreement with a General Service Provider through which they acquire all required ER services.

Detailed contracts and/or agreements are not provided within this ERP. The Facility maintains them externally of this ERP. However, key CFO primary ER contractor (i.e. contact numbers and contract numbers, as applicable) information can be found in ERP-09-04: Appendices: Facility Specific «Contacts Lists».

For a Facility that holds either a Mutual Aid Agreement(s), or unique ER contractor needs (i.e. specialized ER services, Bridging documents), that basic information can be found in ERP0913: Appendices: Facility Specific «Emergency Response Contracts or Agreements».

NOTE: Access to sections ERP-09-04 and 09-13 are Restricted to internal use only as they could contain confidential or private information controlled under privacy regulations.

The type of ER contractor service agreements would vary depending on the Facility's risks and would cover, as appropriate:

- Land **Release** Contracts (CFO arranged ER contractor standing agreements)
- Marine **Release** Contracts, where applicable (Terminal load/unload marine docks)
- Mutual Aid Agreements (Coops, or local Facility arranged ER MAA agreements)
- Bridging Documents (internal Dept ER agreements - list agreement # only)

Land Release Contracts

These types of standing ER agreements are in place for Canada Fuels Operations Facilities and used to support the Facility in responding to land related Facility emergency events.

SECTION 07.04: Team Preparedness
Emergency Response Contracts, Bridging Documents
and Mutual Aid Agreements

Marine Release Contracts

This type of agreement is in place for each Facility that could potentially impact a body of water. In some cases, the contractor may be the same one as used for Land [Releases](#).

For Oil Handling Facilities (OHF)

Under the Canada Shipping Act, 2001, each Oil Handling Facility (OHF) must have an Oil Pollution Emergency Plan (OPEP) for an operational type of [release](#) that might occur when loading or receiving petroleum products over a marine dock. Regulations specify that an OHF must, within one hour, be able to contain a certain size [release](#) at the dock and commence [release](#) recovery within six hours. Additionally, the OHF facility must have an agreement with a Certified Response Organization, covering a response to [releases](#) up to ten thousand (10 000) tonnes. Facilities "north of 60" (Northwest Territories) are not required to have an agreement with a Certified Response Organization as that response capability, for the North, is provided by the Canadian Coast Guard.

For other Facilities - not OHFs

For other facilities, they may use specific other marine contractors or Mutual Aid, if appropriate. If a contractor is used, the contact number and contract number (if applicable) will be listed in ERP-09-04.

Mutual Aid Agreements

This type of agreement is in place in several parts of the country, particularly in Alberta for Pipelines activities, where most of these agreements are within Oil Spill Cooperatives (Coops). These Coops are usually made up from different industry members who share the cost of Equipment acquisition, Equipment maintenance and training expenses among the Coop members. An example, for pipeline operations, Western Canadian Spill Services Ltd. (WCSS) maintains Oil Spill Cleanup and Recovery (OSCAR) equipment for all Coop members. Member's response use agreed Coop member manning and this Coop equipment.

Bridging Documents

This type of agreement is in place where Canada Fuels Operations (CFO) have an operating partnership with another Division or Business Unit of Imperial Oil. In these cases, the ER roles and responsibilities of each organization are specified within an Internal Management document, or Bridging Document. This type of arrangement usually occurs where CFO operate a Refinery connected Facility, or where CFO operate an Imperial Oil Resources Division or other pipeline.

SECTION 07.04: Team Preparedness
Emergency Response Contracts, Bridging Documents
and Mutual Aid Agreements



TITLE **Imperial Facility - Emergency Response Plan**
SECTION 09: Appendices
SUBJECT 1601: MAP 4 - Maps & Containment Points - St. GeoPeters Corners - Toronto

MAP INDEX

Maps 133 - 170

Maps from Peters Corners to Toronto showing:

1. Routes of: Major transmission pipelines;
 - SPPL, SCPL, TNPL, Enbridge, TCPL,
2. SPPL:
 - Pump Stations
 - Terminals
 - Valves
 - Mileposts every 2 miles,
 - Water Crossings
 - Containment Points
3. Fire Stations, Hospitals, Police Stations,
4. Sensitive Areas
5. City Streets

SECTION 09.1601: Appendices
Pipeline Spill Response Tactics - St. George - Toronto

MAP #	PART OF MUNICIPALITY OF	MILE POST
133	Hamilton - Wentworth	116 - 133
137	Hamilton, Waterdown, Burlington	132 - 137
142	Burlington, Oakville	137 - 142
147	Oakville	140 - 147
163	Mississauga	147 - 163
170	Etobicoke	162 - 170

WATER CROSSINGS

MILE POST

MAP #133 - Hamilton Wentworth

Barlow Creek (A Tributary of Fairchild Creek)	120 - 121.5
Spencer Creek	122.7
Spencer Creek - Tributaries "A" & "B"	124 - 126.5
Logies Creek (A Tributary of Spencer Creek)	130 - 130.7
Rock Chapel / Borers Creek	130.8 - 132

MAP #137 - Waterdown, Burlington, Hamilton

Grindstone Creek	133 - 135
Grindstone Creek - Tributaries	135 - 137

MAP #142 - Burlington, Oakville

Bronte Creek (Twelve Mile Creek)	140
Sixteen Mile Creek - (Oakville Creek)	144 - 146

MAP #163 - Mississauga

Joshua's Creek	148
Loyalist Creek (Tributary to Credit River)	149.2
Sawmill Creek (Tributary to Credit River)	150.8
Mullet Creek (Tributary to Credit River)	152.3
Credit River	152.5
Credit River - East Branch	152.7
Mary Fix Creek	155
Cooksville Creek	155.5 - 156
Little Etobicoke Creek (Trib. to Etobicoke Crk)	157.5
Etobicoke Creek	158.8

MAP #170 - Etobicoke

Mimico Creek	162.2
Humber River / Emery Creek	165 - 167.5
Black Creek	169

SECTION 09.1601: Appendices
Pipeline Spill Response Tactics - St. George - Toronto

Page for drawing of Key Map 140 named: [SPPL 12](#)

SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Watercourse Name</td> <td style="border-bottom: 1px solid black;"><u>Barlow Creek</u> <u>Tributary of Fairchild Creek</u></td> </tr> <tr> <td>Watercourse Crossing #</td> <td style="border-bottom: 1px solid black;"><u>Map 133-Mile 121.5</u></td> </tr> <tr> <td>Location</td> <td style="border-bottom: 1px solid black;"><u>Troy (Town of Flamborough)</u></td> </tr> </table>	Watercourse Name	<u>Barlow Creek</u> <u>Tributary of Fairchild Creek</u>	Watercourse Crossing #	<u>Map 133-Mile 121.5</u>	Location	<u>Troy (Town of Flamborough)</u>	
Watercourse Name	<u>Barlow Creek</u> <u>Tributary of Fairchild Creek</u>							
Watercourse Crossing #	<u>Map 133-Mile 121.5</u>							
Location	<u>Troy (Town of Flamborough)</u>							
Municipal Information								
Municipality or Township: (As of 01-01-01, the municipalities of Ancaster, Dundas, Flamborough, Glanbrook, Hamilton, Stoney Creek and the Region of Hamilton-Wentworth amalgamated into the new City of Hamilton.)	City of Hamilton Contact:: (905) 546-CITY (2489) 24/7 Number							
Contact:								
Fire:	911 or (905) 546-3333							
Police:	911 or (905)546-4925							
Ambulance:	911							
Regional Spill Response Coordinator:	Ministry Of Environment Spills Action Center							
Telephone:	1-800-268-6060							
1. Watercourse characteristics at pipeline crossing: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Estimated velocity</th> <th style="text-align: left;">Dimensions</th> <th style="text-align: left;">Other</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;">Fall</td> <td style="vertical-align: top;">Avg. Width: 3m Avg. Depth: .02m Max. Width: 6m</td> <td style="vertical-align: top;">Bed Material: Limestone / silt</td> </tr> </tbody> </table>			Estimated velocity	Dimensions	Other	Fall	Avg. Width: 3m Avg. Depth: .02m Max. Width: 6m	Bed Material: Limestone / silt
Estimated velocity	Dimensions	Other						
Fall	Avg. Width: 3m Avg. Depth: .02m Max. Width: 6m	Bed Material: Limestone / silt						
2. Potential environmental sensitivities: Agricultural area.								

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Barlow Creek</u> a tributary of Fairchild Creek	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 121.5</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	Fairchild Creek - Access from Hwy 54 approx. 2 km east of Cambell Rd. and 7 km west of Brant School Rd. Work area limited to NW side of bridge, use same side down to rivers edge. Traffic on highway busy	Fairchild Creek - Access south from Old Onondaga Rd (branches off at Brant School Rd). Brant School Rd follows trend of river. Take right at 2.5 - 3 km to bridge. Access through private yard on SE side of bridge. 10m of woods before creek bank.	Fairchild Creek - Access from Brant School Rd which exits from Hwy 2/53 (approx. 1.5 km beyond the end of Hwy 403). Take Brant School Rd. to first bridge. Access creek through farmer's field on NW side of bridge (school located 300m on NW side of bridge). Alternate site is on the NE side of bridge through farm field.
Site	Control in front of bridge. Good anchorage from trees on both sides.	Creek is fast following and about 10m wide at this point. Good anchorage on both sides. No sign of pooling or slow areas. Approx. 1 - 2m deep and 1 - 2m/s.	Control at calm area approx. 30m North of Bridge where riparian willow growth starts. Good anchorage. Approx 8m wide, 2m deep, and 0.5m/s. Alternate site control at bridge, good anchorage both sides.
Containment Method	Boat Booms (60') Skimmers Dispersants	Booms Skimmers Dispersants	Booms Skimmers Dispersants
Distance to Control Point			

SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Barlow Creek</u> <u>A tributary of Fairchild Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 121.5</u>	
	Control Point		
	CP4	CP5	CP6
Access/ Location	Good access north from County Rd 11/Lynden Rd approx. 1 km east of MacMillan Rd. Access creek via track beside white century home on NE side of County Rd. 11. Follow track approx. 20m then cross field 10m to creek edge.	Good access south from Powerline Rd (approx. 2.5 km west of Bethel Church Rd or 4 km from Brantford). Access creek via farmer's field track on east side of bridge. Follow track 50m to creek edge.	Good access south from Hwy 99 on west side of bridge via a one lane dirt road that runs east. Lane exits Hwy 99 just before retaining pylons start. Park in small grass area at creek edge. Steep slope approx. 3m to creek. Possible location for control point 6A north side of driveway. Tributary runs by here
Site	Control about 30m north of bridge. Calm area with good anchorage to willow on both banks.	Control at calm area near bridge or just south of bridge by willows. Good anchorage on east side, more sparse on west side.	Control at bridge. Calm area about 6m wide. Little anchorage. Some small pin cherry on west bank, east bank barren.
Containment Method	Booms Skimmers Dispersants	Booms Skimmers Dispersants	Booms Skimmers Dispersants
Distance to Control Point			

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Barlow Creek</u> a tributary of Fairchild Creek	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 121.5</u>	
	Control Point		
	CP7	CP8	CP9
Access/ Location	Fairchild Creek - Good access east from Harrisburg Rd. South of Harrisburg road takes a sharp right. Bridge at bottom of hill approx. 1 km. Access east side of road after bridge via ditch to creekside (approx 20m).	Fairchild Creek - Good access south from Con Rd 2 West 1 km east of Harrisburg Rd. Access at road via farm access bridge.	Fairchild Creek - Access via private driveway south from Hwy 5 in the village of Troy. Driveway is located approx. 100m east of the east entrance to the Troy Road. Gate must be opened to access river.
Site	Control at small overhanging willow. Good anchorage on south side, sparse on north side. 4m wide, .5m deep, 1m/s.	Bridge can be used to facilitate control. Good calm area on either side. Little cover. Small trees for anchorage.	Control site is fast flowing through limestone run. Possibly use bridge in driveway to facilitate containment. Good anchorage either bank. 4m wide, .5m deep, 2m/s.
Containment Method	Foam Booms Dispersants	Booms Foam Skimmers Dispersants	Booms Foam Skimmers Dispersants
Distance to Control Point			

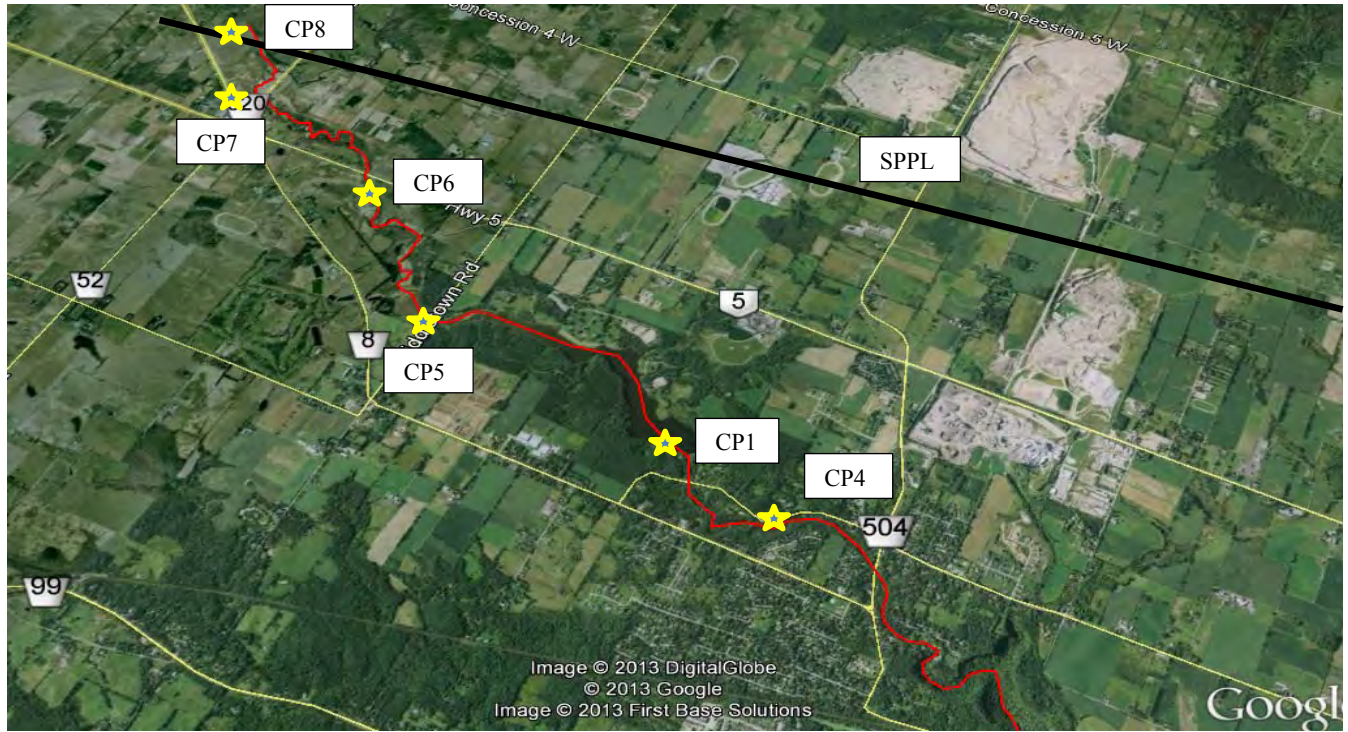
SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Barlow Creek</u> a tributary of Fairchild Creek	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 121.5</u>	
	Control Point		
	CP10	CP11	CP12
Access/ Location	Access on west side of Hunter Rd, approx. 1.5 km south of the 4th Con. W., through a private yard with dogs. Can get within 5m of creek edge	Good access from Lynden Rd (1 km north of Hwy 5). Access is just north of bridge through farmer's field on west side of Lynden Rd (approx. 100m.)	Access on west side of Woodhill Rd, approx. .5 km south of the 4th Con. W.. Reach creek edge using pump station access track. Can get down to the creek side beside pump station.
Site	Control site is in a slight pooling approximately 5m west of Hunter Rd. There are falls on the east side of Hunter and rapids begin approx. 4m downstream of control point. Good anchorage on both sides. Dries up in dry periods.	Good pool west of Lynden Rd (approx 20m.). Little anchorage available but some elm in vicinity. Some natural blockage Dries up in dry periods.	Control point is right beside the pump station, in a pool (approx. 15m wide) about 3m west of road bed. The pool is located downstream of 5 culverts under Woodhill Rd. Some anchorage. Dries up in dry periods.
Containment Method	Booms Foams Dispersants Skimmers	Foam Booms Skimmers Dispersants	Booms Foams Dispersants
Distance to Control Point			

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

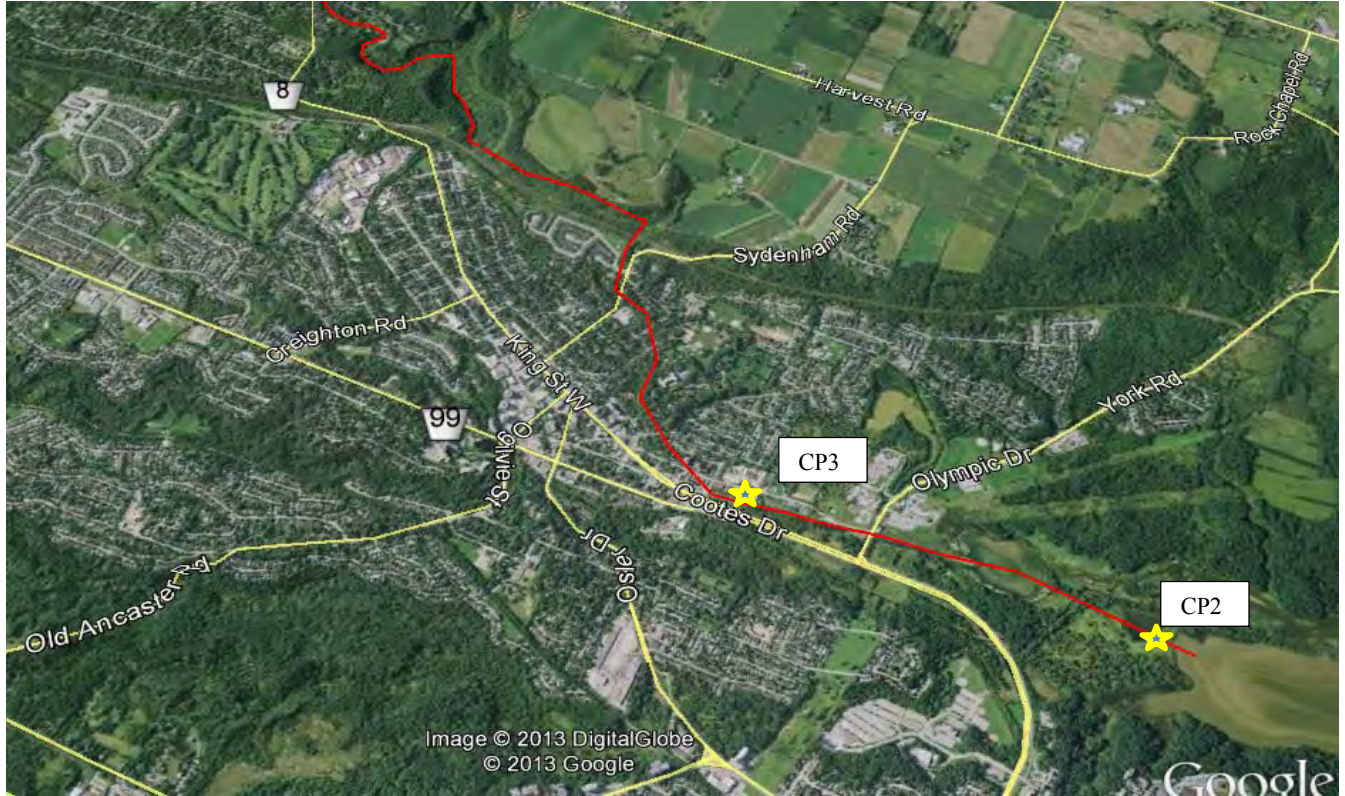
SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name <u>Spencer Creek</u>	
	Watercourse Crossing # <u>Map 133-Mile 122.7</u>	
	Location <u>Town of Flamborough</u>	
Municipal Information		
Municipality or Township: (As of 01-01-01, the municipalities of Ancaster, Dundas, Flamborough, Glanbrook, Hamilton, Stoney Creek and the Region of Hamilton-Wentworth amalgamated into the new City of Hamilton.)	City of Hamilton	
Contact:	Contact:: (905) 546-CITY (2489)	
Telephone:	24/7 Number	
Fire:	911 or (905) 546-3333	
Police:	911 or (905)546-4925	
Ambulance:	911	
Regional Spill Response Coordinator:	Ministry Of Environment Spills Action Center	
Telephone:	1-800-268-6060	
1. Watercourse characteristics at pipeline crossing:		
Estimated velocity	Dimensions	Other
Fall: 1m/s	Avg. Width: 10m Avg. Depth: 1m Max. Width: 35m	Bed Material: rock/rubble/ silt/sand
2. Potential environmental sensitivities:		
Flows through agricultural lands and good riparian vegetation areas. Also flows through Christie Conservation Area and Royal Botanical Gardens.		
Note: CP1 is at the Hamilton Region Conservation Authority Dam at Crook's Hollow, just upstream from the Historic Darnley Grist Mill. Contact the Hamilton Region Conservation Authority and get them to close the dam.		

SECTION 09.16: Appendices
Pipeline Spill Response Tactics- St. George - Toronto



Spencer Creek Control Points

SECTION 09.1601: Appendices
Pipeline Spill Response Tactics - St. George - Toronto



SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Spencer Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 122.7</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	<p>This is the best initial response location.</p> <p>Contact the Hamilton Region Conservation Authority and get them to close the dam at Crook's Hollow just upstream from the Historic Darnley Grist Mill. Access point is located approx. 1 km north of Hwy 8 on the Crook's Hollow Road.</p> <p>Should try and stop oil before entering into Christies Conservation area, (swimming and picnic areas).</p> <p>Gate across driveway could be locked.</p>	<p>Access East from Cootes Drive approx. 1 km North of McMaster University. Access creek from south side at bike path over creek and from foot path along side of creek.</p>	<p>Access East from Thorpe St. in Dundas. Take King St E / Cootes Drive to Thorpe (3rd right after Main St), cross Dundas. Access is on SE side of bridge 100m south of Dundas St E.</p>
Site	<p>Conservation Authority Dam which can be closed. During survey, the water was approximately 6m from spill gates.</p>	<p>Control point is 3m down off of East side of bridge. Low retaining wall on road side on both sides of bridge. Good anchorage on both sides. 8m wide, 1 - 2 deep, .2m/s.</p>	<p>Can get to the edge of a steep 3m embankment. Good anchorage on top of bank on either side. Creek fast flowing at this location. 8m wide, .5 - 1m deep 1.5 - 2m/s.</p>
Containment Method	<p>Skimmers Boats Foam Dispersants</p> <p>Boom 1000' to direct oil to one side of dam.</p>	<p>Heavy booms Skimmers Dispersants</p>	<p>Heavy Booms Skimmers Dispersants</p>
Distance to Control Point			

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Spencer Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 122.7</u>	
	Control Point		
	CP4	CP5	CP6
Access/ Location	Control point is a dam located on Crook's Hollow Rd (1 km west of where it joins Old Brock Rd which intersects Brock Rd running North off Hwy 8 in Bullock's Corners).	Good access east from Middletown Rd, south of Hwy 5. Take Middletown Rd south from Hwy 5 to first bridge (approximately 2 km). Access is off bridge on west side, creek narrows to go under bridge.	Access is south from Hwy 5 approx. 2 km east of Peter's Corners. Difficult to get to creek edge, but parking at roadside provides access within 20m of containment point. It may be possible to get vehicle down 2m embankment on SE side of bridge and approx. 15m across floodplain to creek edge. No Access to flood plain (wet). Very busy road. Not a real good location.
Site	Hamilton Conservation Authority Dam located downstream of large creek widening. Dam at survey time was releasing approximately 0.3m of water and there are no blocks left to put in. Very narrow road and small work area.	Control point is beside bridge on west side where the creek narrows into a 20m wide area before entering bridge . Good anchorage on south bank, sparse on north bank. 1 - 2m deep, .5m/s.	Control point is 15m south of bridge at creek widening. Trees on both sides for anchorage. Approx. 10m wide, .5m deep, .5m/s.
Containment Method	Skimmers Boats Foam Dispersants Boom (300")	Booms (75') Foam Skimmers Dispersants	Booms Foam Skimmers Dispersants
Distance to Control Point			

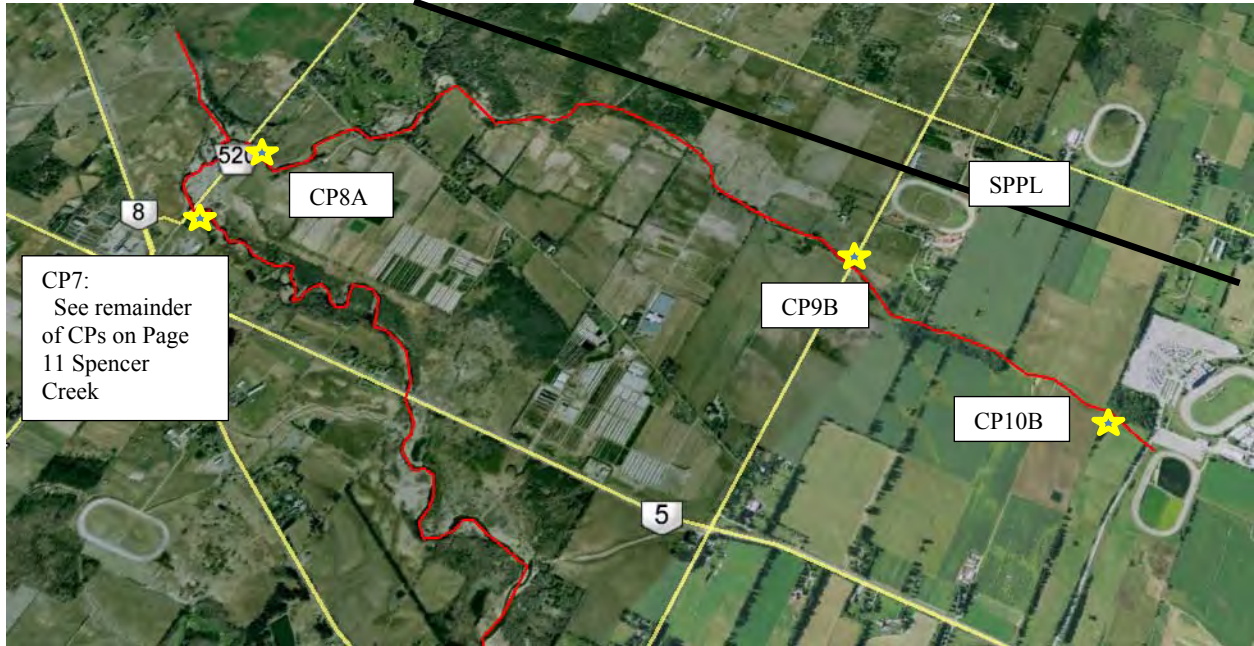
SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Spencer Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 122.7</u>	
	Control Point		
	CP7	CP8	CP9
Access/ Location	<p>Good access east from Westover Rd 100m north of Peter's Corners. At first bridge, access creek through private yard on east side. End of the driveway is approximately 5m from creek edge.</p> <p>End of driveway now has pump house installed to fill fire trucks, (should not be blocked).</p>	<p>Access from Hwy 8 roadside (approximately 300m east of Valens/Orkney Rd). Park vehicles on side of road by pylons. Creek access is 6m from road on either side.</p>	
Site	<p>Control point is 15m east of bridge at meander running north. Good anchorage on both sides. 12m wide, 1m deep, .2m/s.</p>	<p>There are control sites on either side of Hwy 8 , directly in front of the culvert under Hwy 8. Good anchorage on terminal fence posts on either side of creek. 2m wide, 1m deep, .2m/s.</p>	
Containment Method	<p>Skimmers Foam booms Dispersants</p>	<p>Skimmers Foam booms Dispersants</p>	
Distance to Containment Point			

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name	<u>Spencer Creek</u> <u>Tributary A and B</u>						
	Watercourse Crossing #	<u>Map 133-Mile 126.5</u>						
	Location	<u>Town of Flamborough</u>						
Municipal Information								
Municipality or Township: (As of 01-01-01, the municipalities of Ancaster, Dundas, Flamborough, Glanbrook, Hamilton, Stoney Creek and the Region of Hamilton-Wentworth amalgamated into the new City of Hamilton.)	City of Hamilton Contact: (905) 546-CITY (2489) 24/7 Number							
Contact:								
Telephone:								
Fire:	911 or (905) 546-3333							
Police:	911 or (905)546-4925							
Ambulance:	911							
Regional Spill Response Coordinator:	Ministry Of Environment Spills Action Center							
Telephone:	1-800-268-6060							
1. Watercourse characteristics at pipeline crossing: <table border="0" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Estimated velocity</th> <th style="text-align: left;">Dimensions</th> <th style="text-align: left;">Other</th> </tr> </thead> <tbody> <tr> <td>Fall: .3m/s</td> <td>Avg. Width: 5m Avg. Depth: .75m Max. Width: 10m</td> <td>Bed Material: rock/rubble/silt</td> </tr> </tbody> </table>			Estimated velocity	Dimensions	Other	Fall: .3m/s	Avg. Width: 5m Avg. Depth: .75m Max. Width: 10m	Bed Material: rock/rubble/silt
Estimated velocity	Dimensions	Other						
Fall: .3m/s	Avg. Width: 5m Avg. Depth: .75m Max. Width: 10m	Bed Material: rock/rubble/silt						
2. Potential environmental sensitivities: Flows through agricultural lands and into Spencer's Creek upstream from Christie Conservation Area and Royal Botanical Gardens. Tributary B also flows through Flamborough Downs Race Track. Note: CPI is at the Hamilton Region Conservation Authority Dam at Crook's Hollow, just upstream from the Historic Darnley Grist Mill. Contact the Hamilton Region Conservation Authority and get them to close the dam.								

SECTION 09.16: Appendices
Pipeline Spill Response Tactics- St. George - Toronto



Spencer Creek Tributary A & B Control Points

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Spencer Creek</u> <u>Tributary A and B</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 126.6</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	Spencer Creek - This is the best initial response location. Contact the Hamilton Region Conservation Authority and get them to close the dam at Crook's Hollow just upstream from the Historic Darnley Grist Mill. Access point is located approx. 1 km North of Hwy 8 on the Crook's Hollow Road.	Spencer Creek - Access East from Cootes Drive approx. 1 km North of McMaster University. Can not access creek edge, however parking on the bridge over the creek will provide access.	Spencer Creek - Access East from Thorpe St. in Hamilton. Take King St E / Cootes Drive to Thorpe (3rd right after Main St), cross Dundas. Access is on SE side of bridge 100m south of Dundas St E.
Site	Conservation Authority Dam which can be closed. During survey, the water was approximately 6m from spill gates.	Control point is 3m down off of East side of bridge. Low retaining wall on road side on both sides of bridge. Good anchorage on both sides. 8m wide, 1 - 2 deep, .2m/s.	Can get to the edge of a steep 3m embankment. Good anchorage on top of bank on either side. Creek fast flowing at this location. 8m wide, .5 - 1m deep 1.5 - 2m/s.
Containment Method	Skimmers Boats Foam Dispersants	Heavy booms Skimmers Dispersants	Heavy Booms Skimmers Dispersants
Distance to Control Point			

SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Spencer Creek</u>	
Pipeline Spill Response Tactics		Tributary <u>A and B</u>	
		Watercourse Crossing # <u>Map 133 - Mile 126.5</u>	
		Control Point	
		CP4	CP5
		CP6	
Access/ Location	Spencer Creek - Control point is a dam located on Crook's Hollow Rd (1 km of where it joins Old Brock Rd which intersects Brock Rd running North off Hwy 8 in Bullock's Corners.	Spencer Creek - Good access East from Middletown Rd, south of Hwy 5. Take Middletown Rd south from Hwy 5 to first bridge (approximately 2 km). Access road is 50m south on the east side of the bridge through a locked gate into Christie Conservation Area. Follow track north to creek edge to where creek turns east.	Spencer Creek - Access is south from Hwy 5 approx. 2 km east of Peter's Corners. Difficult to get to creek edge, but parking at roadside provides access within 20m of containment point. It may be possible to get vehicle down 2m embankment on SE side of bridge and approx. 15m across floodplain to creek edge.
Site	Hamilton Conservation Authority Dam located downstream of large creek widening. Dam at survey time was releasing approximately .3m of water and there are no blocks left to put in.	Control point is beside bridge on east side where the creek bends into a 20m wide area. At bend creek is approximately 12m wide. Good anchorage on south bank, sparse on north bank. 1 - 2m deep, .5m/s.	Control point is 15m south of bridge at creek widening. Trees on both sides for anchorage. Approx. 10m wide, .5m deep, .5m/s.
Containment Method	Skimmers Boats Foam Dispersants	Booms Foam Skimmers Dispersants	Booms Foam Skimmers Dispersants
Distance to Control Point			

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Spencer Creek</u> <u>Tributary A and B</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 126.5</u>	
	Control Point		
	CP7	CP8A	CP9B
Access/ Location	Spencer Creek - Good access east from Westover Rd 100m north of Peter's Corners. At first bridge, access creek through private yard on east side. End of the driveway is approximately 5m from creek edge. End of driveway now has pump house installed to fill fire trucks (should not be blocked).	Good access west from Westover Rd, 500m north of Hwy 5. Access is through field. Access point is 300m south of 2nd bridge. Drive north through field to creek edge just east of bridge on either side. Field becoming grown up with brush. Better location is at second bridge north of Hwy #5. Driveway on east side leads down to creek, private property #1306.	Good access east or west from Middletown Rd. Access point approximately 1 km south of 4th Con Rd. Access at side of road by culvert. Control point 1m from road edge.
Site	Control point is 15m east of bridge at meander running north. Good anchorage on both sides. 12m wide, 1m deep, .2m/s.	Control point 5m east of bridge in clamer area. Good anchorage on either side of creek. 10m wide, 1m deep, .3m/s. Small trees for anchorage, 25' wide	Control point on either side directly beside road. Good anchorage on east side none on west side. Water is very slow moving, almost standing. 2m wide, .5m deep, 0.1m/s. Dries up in summer.
Containment Method	Skimmers Foam booms Dispersants	Skimmers Booms	Foam booms Dispersants Skimmers
Distance to Containment Point			

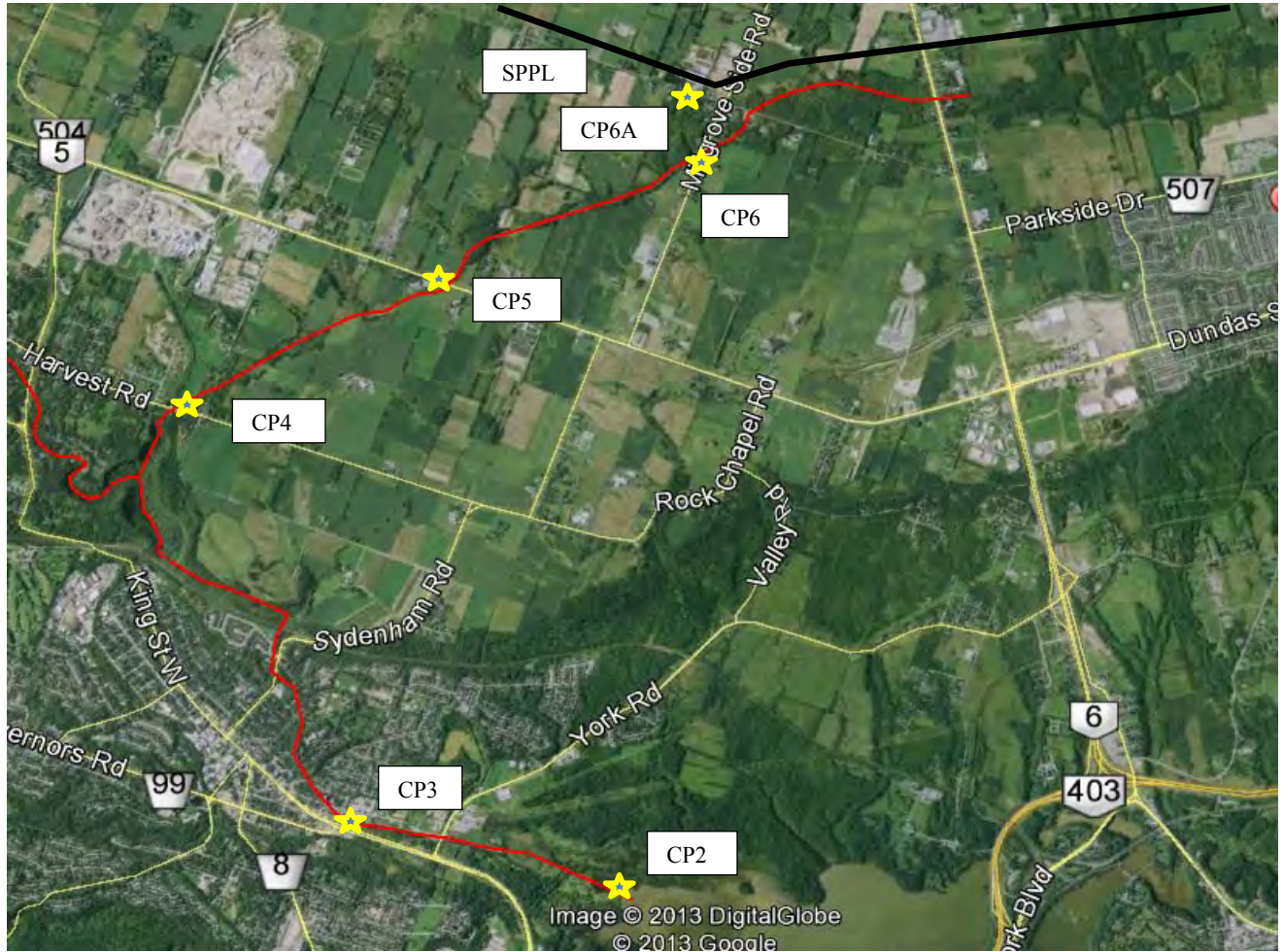
SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics		Watercourse Name: <u>Spencer Creek Tributary A and B</u>	
		Watercourse Crossing # <u>Map 133 - Mile 126.5</u>	
		Control Point	
		CP10B	
Access/ Location	Access to creek on east or west side of Flamborough Downs entrance road. Creek bisects road approx. 100m north of over head sign just before main building. Stream is intermittent.		
Site	Control site is located approx. 50m south of main gate. Creek is channelized. Control at culvert. Either side will contain control opportunities. Little anchorage.		
Containment Method	Foam booms Dispersants		Foam booms Disperants Skimmers
Distance to Containment Point			

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name	<u>Logie's Creek plus tributary A</u>						
	Watercourse Crossing #	<u>Map 133-Mile 130.7</u>						
	Location	<u>Town of Flamborough</u>						
Municipal Information								
Municipality or Township: (As of 01-01-01, the municipalities of Ancaster, Dundas, Flamborough, Glanbrook, Hamilton, Stoney Creek and the Region of Hamilton-Wentworth amalgamated into the new City of Hamilton.)	City of Hamilton Contact: (905) 546-CITY (2489) 24/7 Number							
Contact:								
Telephone:								
Fire:	911 or (905) 546-3333							
Police:	911 or (905)546-4925							
Ambulance:	911							
Regional Spill Response Coordinator:	Ministry Of Environment Spills Action Center							
Telephone:	1-800-268-6060							
1. Watercourse characteristics at pipeline crossing: <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Estimated velocity</th> <th style="text-align: left;">Dimensions</th> <th style="text-align: left;">Other</th> </tr> </thead> <tbody> <tr> <td>Fall: .1m/s</td> <td>Avg. Width: 2m Avg. Depth: .3m Max. Width: 4m</td> <td>Bed Material: muck/silt</td> </tr> </tbody> </table>			Estimated velocity	Dimensions	Other	Fall: .1m/s	Avg. Width: 2m Avg. Depth: .3m Max. Width: 4m	Bed Material: muck/silt
Estimated velocity	Dimensions	Other						
Fall: .1m/s	Avg. Width: 2m Avg. Depth: .3m Max. Width: 4m	Bed Material: muck/silt						
2. Potential environmental sensitivities: Flows into Spencer Creek through agricultural lands, eventually will run into Dundas (Regional Municipality of Hamilton - Wentworth) and Royal Botanical Gardens. Note: No CP1. Go directly to CP2.								

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Pipeline Spill Response Tactics- St. George - Toronto



Logie's Creek Control Points

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 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Logie's Creek plus Tributary A</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 130.7</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	No CP1	Access east from Cootes Drive approx. 1 km North of McMaster University. Access creek from south side at bike path over creek and from foot path along side of creek.	Access east from Thorpe St. in Dundas . Take King St E / Cootes Drive to Thorpe (3rd right after Main St), cross Dundas. Access is on SE side of bridge 100m south of Dundas St E.
Site		Control point is 3m down off of south side of bridge. Low retaining wall on road side on both sides of bridge. Good anchorage on both sides. 8m wide, 1 - 2 deep, .2m/s.	Can get to the edge of a steep 3m embankment. Good anchorage on top of bank on either side. Creek fast flowing at this location. 8m wide, 0.5 - 1m deep 1.5 - 2m/s.
Containment Method		Heavy booms (50') Skimmers Dispersants	Heavy Booms Skimmers Dispersants
Distance to Control Point			

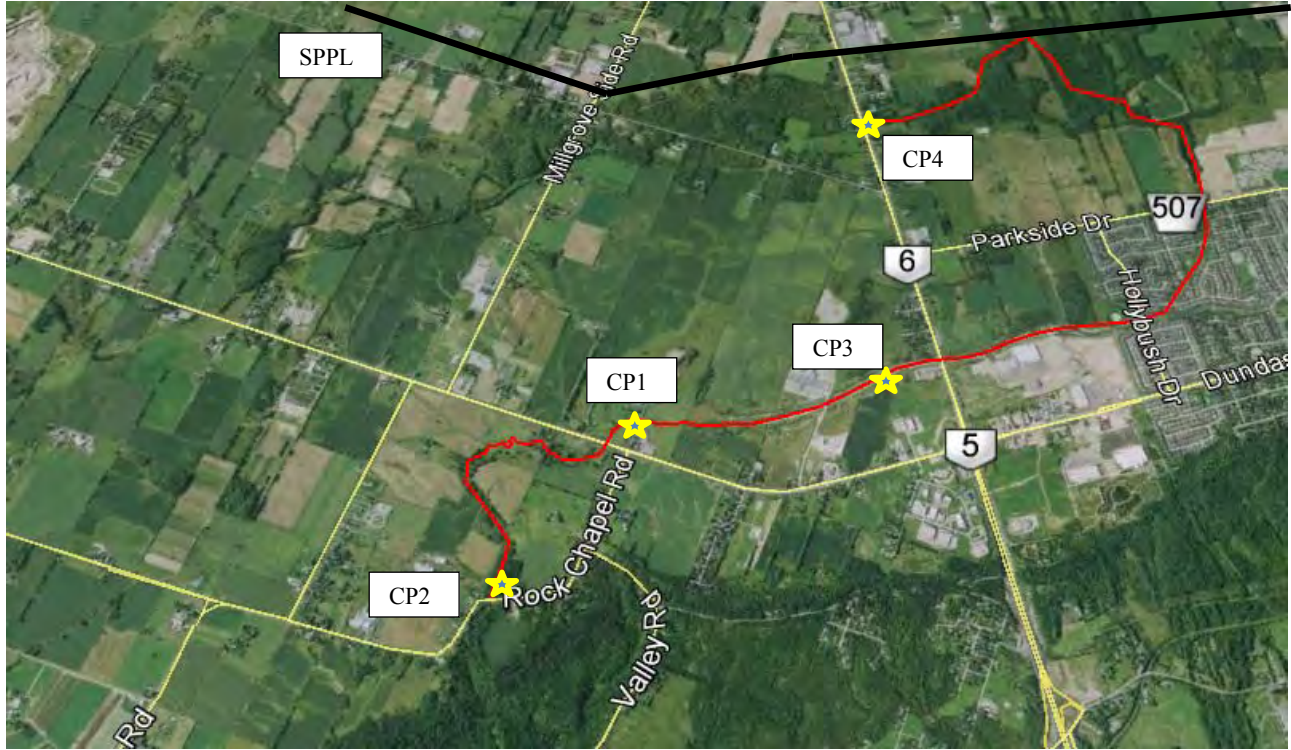
SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Logie's Creek plus Tributary A</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 130.7</u>	
	Control Point		
	CP4	CP5	CP6
Access/ Location	Access east from Olfield Rd 300m north of Harvest Rd. Access creek from side of road at bridge.	Access north from Hwy 5, 1 km east of Olfield Rd North. Access creek side from road (steep 3m embankment and retaining pylons) or through private yard and farmer's field (approximately 200m) on NE side of culvert (fence will have to be taken down) This control point is very risky due to traffic on Hwy #5 and no work area.	Good access east from Millgrove Side Rd approximately 500m south of the 4th Con Rd. Access creek from side of road beside tower located on north side of creek.
Site	Control point is 2m east of culvert in good pool. Good anchorage on both sides. 3m wide, .5m deep, .1m/s	Control point is 3m from road edge down a steep 3m embankment. Good pool with anchorage on both sides. 2m wide, .2m deep, .1m/s	Control point is right beside road at culvert. Water is clam and slow flowing at this point. 2m wide, .3m deep, .1m/s.
Containment Method	Foam booms Dispersants Skimmers	Foam booms Dispersants Skimmers	Foam booms Dispersants Skimmers
Distance to Control Point			

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Logie's Creek plus Tributary A</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 130.7</u>	
	Control Point		
	CP6A		
Access/ Location	Access on north side of 4th Con. W., approx. 400m west of Millgrove Side Rd. Access the site from the side of the road. Stream is intermittent.		
Site	Control site is adjacent to the culvert on the west side of Millgrove Side Rd. Little anchorage. Culverts filled in.		
Containment Method	Foam Dispersants		
Distance to Control Point			

SECTION 09.1601: Appendices
Pipeline Spill Response Tactics - St. George - Toronto



Rock Chapel & Borer's Creek Control Points

SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Rock Chapel Creek / Borer's Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 130.8</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	<p>CP1 is before CP2 because of Borer's Falls.</p> <p>Access through Rock Chapel Golf Centre. The golf centre is located on the north side of Hwy 5, approx. 200m west of Roack Chapel Rd. Reach spill gate using berm that parallels Hwy 5. Also farm gate on east side of creek off Hwy. 5 working on golf coarces.</p>	<p>Access on west side of Rock Chapel Rd. Pull off road on east side of bridge with the creek approx. 4m to the west.</p>	<p>Access on west side of Hwy 6 approx. 400m north of Hwy 5. Reach creekside through the 'Trailer Field Service' parking lot on the sw side of the culvert.</p>
Site	<p>Control upstream of spillgate about 20m west of Hwy 5. Best option is to try and block off spillgate and use it and the berm to dam up the flow. 1m/s, 1m deep, 15m wide.</p>	<p>Control at bridge. There is little anchorage except the bridge itself. Water is very fast. 2m/s, .5m deep, 3m wide.</p> <p>Use extreme caution as there is a 30m waterfall 40m downstream.</p>	<p>Control downstream of the culvert bisecting Hwy 6. The creek is channelized at this point. Anchor to the fence on either side. 1m/s, .5m deep 5m wide.</p>
Containment Method	<p>Booms Skimmers Logs or planks to block spillgate</p>	<p>Booms Skimmers</p>	<p>Booms Foam Dispersants Skimmers</p>
Distance to Control Point			

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Rock Chapel Creek / Borer's Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 133 - Mile 130.8</u>	
	Control Point		
	CP4	CP5	CP6
Access/ Location	Access on west side of Hwy 6 at side of road. Control at culvert approx. 500m south of 5th Con. W..		
Site	Control site is on west side of Hwy 6 at culvert using the pooling approx. 3m from road. Good anchorage on either side. Creek flows east out of the wetland at this point.		
Containment Method	Foam Dispersants		
Distance to Control Point			

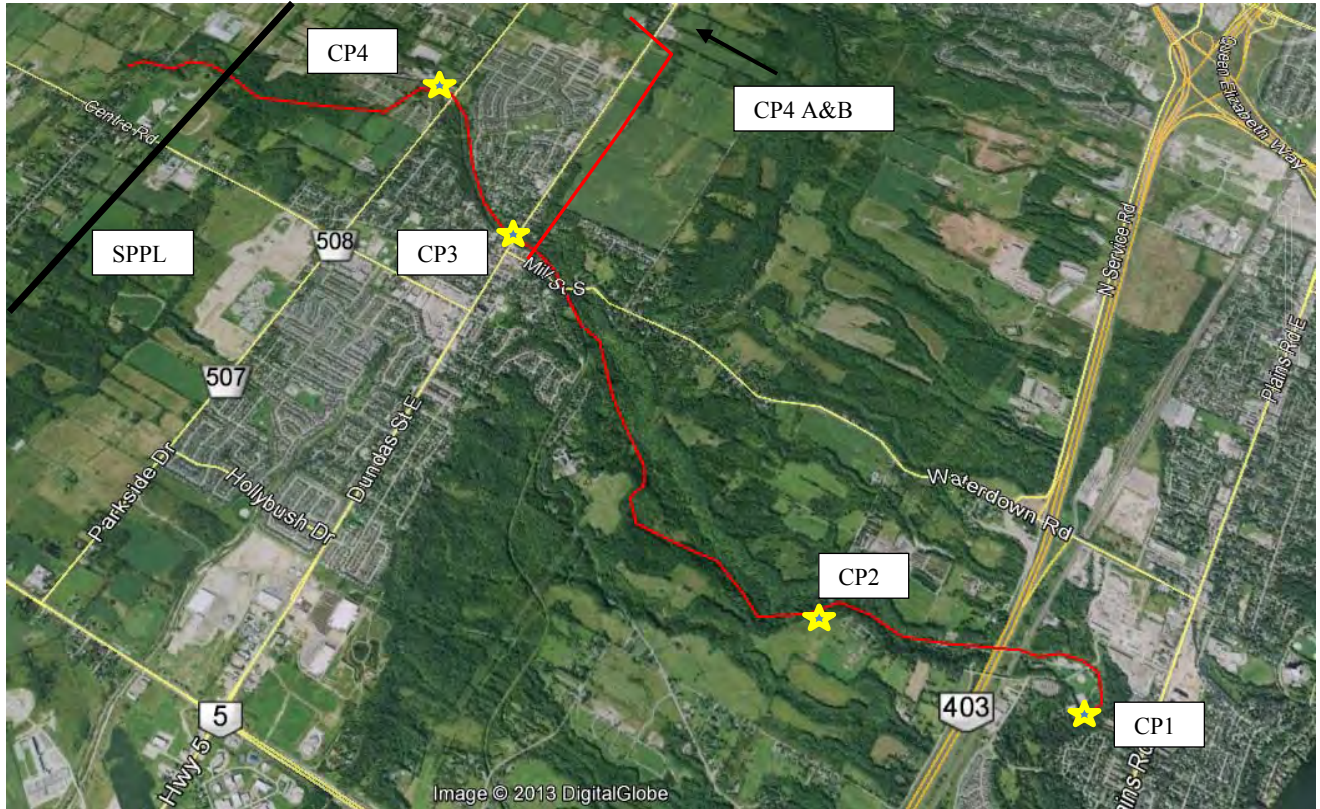
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SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics		Watercourse Name	<u>Grindstone Creek</u>
		Watercourse Crossing #	<u>Map 137 - Mile 135.3</u>
		Location	<u>Burlington</u>
Municipal Information			
Municipality or Township	City of Burlington 311 905-825-6000 24/7 Number	City of Hamilton Contact:: (905) 546-CITY (2489) 24/7 (As of 01-01-01, the municipalities of Ancaster, Dundas, Flamborough, Glanbrook, Hamilton, Stoney Creek and the Region of Hamilton-Wentworth amalgamated into the new City of Hamilton.)	
Contact:	Director of Engineering		
Telephone:	(905) 335-7600 ext.7795		
Fire:	911 or (905) 637-8253	911 or (905) 546-3333	
Police:	911 or (905) 878-5511 Halton Regional Police cover: Burlington, Oakville, Milton, George Town & Acton	911 or (905)546-4925	
Ambulance:	911	911	
Regional Spill Response Coordinator	Spill Response Team Halton Region	MOEE Spills Action Center	
Telephone	(905) 825-6000 24 Hour Number	1-800-268-6060	
1. Watercourse Characteristics At Pipeline Crossing:			
Estimated velocity		Dimensions	
Summer: .5m/s		Avg. Width: 4m	
		Avg. Depth: .2m	
		Max. Width:	
		Other	
		Bed Material:	
2. Potential Environmental Sensitivities:			
Flows through downtown Waterdown. Must stop before reaches Royal Botanical Gradens. Holy Sepuchere Cemetery, Hidden Valley Park are potential water takers. Notre Dame Academy south of Waterdown backs onto the creek.			

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Pipeline Spill Response Tactics- St. George - Toronto



Grindstone Creek Control Points

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 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Grindstone Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 137 - Mile 135.3</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	Access through Hidden Valley Park - take park entrance south off of Lemonville Rd. - to get to Lemonville Rd take Howard Rd. north off at Plains Rd. which turns into Lemonville Rd. - park at first parking lot	Access at end of Hidden Valley Rd. - go north on Howard Rd. off of Plains Rd. - follow Howard Rd. for Lemonville Rd. park - take Hidden Valley Rd. (looks like North entrance to Park) to end Low bridge to go under 3.5m	Access north off of Highway 5 in Waterdown - just east of bridge take Board Rd. north - dead end road that turns to track ~ 50m from Highway 5 - take to end and follow rail tracks south 200m to bridge Roadway is steep, have to cross railway tracks to get beside creek.
Site	- site located 10m south of southwest corner of first parking lot - pool located just west of park vehicle bridge - two large trees on either side provide good unanchorage	Site located just west of Hidden Valley Rd. turnaround - access to creek 10m from turnaround down a small embankment (2-3m)	Best location under or just north of bridge abutments - water moving through mild riffle zone through this area Creek runs beside railway tracks, fair amount of train traffic.
Containment Method	Heavy booms Skimmers Dispersants	Heavy booms Skimmers Dispersants	Heavy booms Skimmers Dispersants
Distance to Control Point	7.15 km	5.5 km	2.7 km

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 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Grindstone Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 137 - Mile 135.3</u>	
	Control Point		
	CP4	CP5	CP6
Access/ Location	Access on north side of Parkside Dr. - can get vehicle to within 15m of site on ROW until stopped by a pole - possible to run skimming equipment over side of bridge. Fair amount of traffic on road, close to railway crossing.		
Site	- good pool just south of bridge - plenty of unchorage - well treed - also holding pond just north of Parkside Dr. but getting vehicles in will be difficult		
Containment Method	Heavy booms Skimmers Dispersants		
Distance to Control Point	1.5 km		

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics		Watercourse Name <u>Grindstone Creek Tributaries</u>
		Watercourse Crossing # <u>Map 137 - Mile 137</u>
		Location <u>Burlington</u>
Municipal Information		
Municipality or Township:	City of Burlington 311 905-825-6000 24/7 Number	City of Hamilton Contact:: (905) 546-CITY (2489) 24/7 (As of 01-01-01, the municipalities of Ancaster, Dundas, Flamborough, Glanbrook, Hamilton, Stoney Creek and the Region of Hamilton-Wentworth amalgamated into the new City of Hamilton.)
Contact:	Director of Engineering	
Telephone:	(905) 335-7600 ext.7795	
Fire:	911 or (905) 637-8253	911 or (905) 546-3333
Police:	911 or (905) 878-5511 Halton Regional Police cover: Burlington, Oakville, Milton, George Town & Acton	911 or (905)546-4925
Ambulance:	911	911
Regional Spill Response Coordinator	Spill Response Team Halton Region	MOEE Spills Action Center
Telephone	(905) 825-6000 24 Hour Number	1-800-268-6060
1. Watercourse characteristics at pipeline crossing:		
Estimated velocity	Dimensions	Other
Summer: .2m/s	Avg. Width: 1m Avg. Depth: .1m Max. Width: 1.5m	Bed Material: rock/rubble

SECTION 09.16: Appendices
Pipeline Spill Response Tactics- St. George - Toronto

2. Potential environmental sensitivities:

Flows through downtown Waterdown. Must stop before reaches Royal Botanical Gardens. Holy Sepuchere Cemetery, Hidden Valley Park are potential water takers. Notre Dame Academy south of Waterdown backs onto the creek.

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Grindstone Creek Tributaries</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 137 - Mile 137</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	Access through Hidden Valley Park - take park entrance south off of Lemonville Rd. - to get to Lemonville Rd take Howard Rd. north off at Plains Rd. which turns into Lemonville Rd. - park at first parking lot	Access at end of Hidden Valley Rd. - go north on Howard Rd. off of Plains Rd. - follow Howard Rd. for Lemonville Rd. park - take Hidden Valley Rd. (looks like North entrance to Park) to end	- Access on west. side of Highway 5, east of Waterdown (west of Evans Sideroad) - use side of road to park vehicles - could use south side but it is private property - site is 1m north of Highway 5
Site	- site located 10m south of southwest corner of first parking lot - pool located just west of park vehicle bridge - two large trees on either side provide good unchorage	Site located just west of Hidden Valley Rd. turnaround - access to creek 10m from turnaround down a small embankment (2-3m)	site is at culvert under Highway 5 - good access and anchorage
Containment Method	Heavy booms Skimmers Dispersants	Heavy booms Skimmers Dispersants	Foam skimmery Dispersants
Distance to Control Point	7.15 km	5.5 km	5 km

SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Grindstone Creek Tributaries</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 137-Mile 137</u>	
	Control Point		
	CP4-A	CP4-B	CP6
Access/ Location	Access on east side of Cedar Springs Rd. just south of Sideroad No. 1 (~ 1 km) to avoid private property Alternate location, east of Cedar Springs Rd. on #1 side road.	Access on west side of Cedar Springs Rd. Alternate location, east of Cedar Springs Rd. at concrete bridge.	
Site	Site on east side of Cedar Springs Road by culvert. Good control point at culverts.	Site 2m west of road - good anchorage. Good anchorage on south side of bridge.	
Containment Method	Foam skimmery Dispersants	Foam skimmery Dispersants	
Distance to Control Point	1.25 km	2.7 km	

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Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name <u>Bronte Creek</u> (<u>Twelve Mile Creek</u>) Watercourse Crossing # <u>Map 142-Mile 140</u>
<p style="text-align: center;">See Section 09-1606 Pipeline Spill Response Tactics-Bronte Creek for detailed plans</p>	

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: <u>Sixteen Mile Creek and East Sixteen Mile Creek</u> Watercourse Crossing # <u>Map 147-Mile 144</u>
See Section 09-1607 Pipeline Spill Response Tactics- 16 Mile Creek for detailed plans	

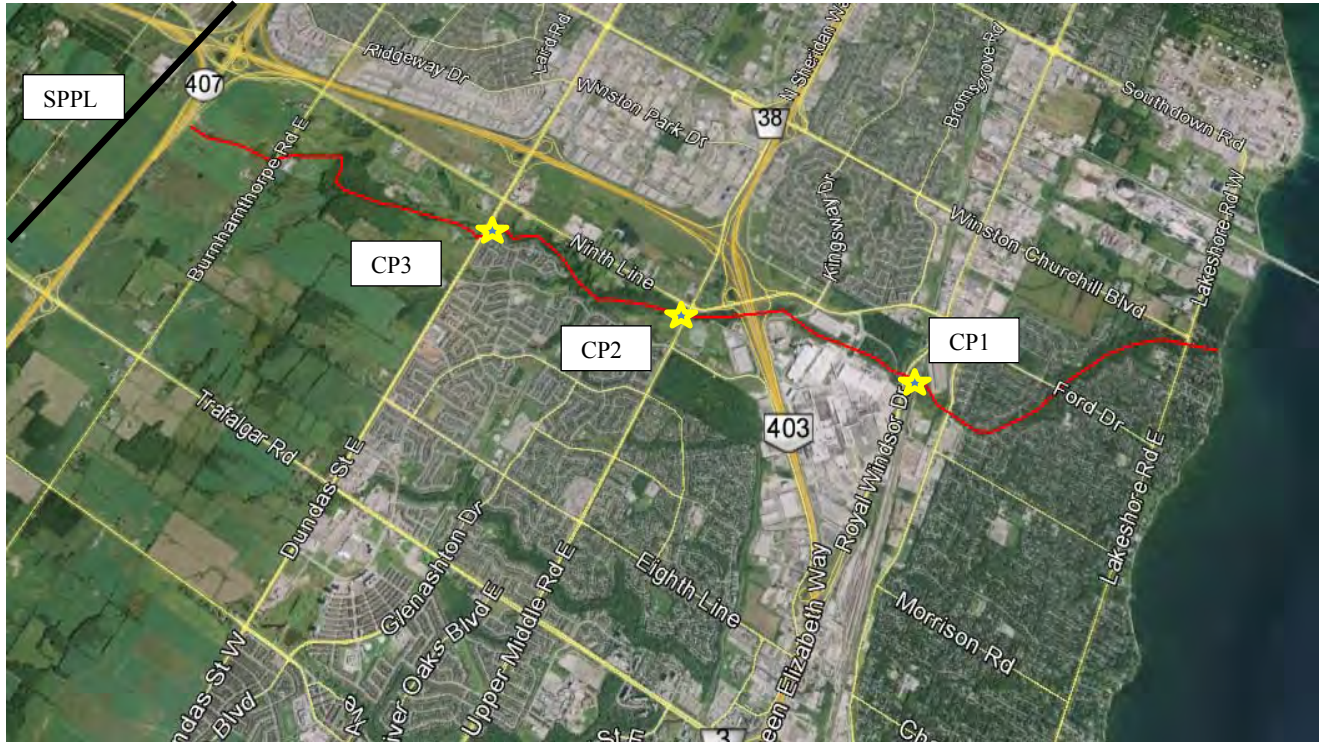
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SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics		Watercourse Name	<u>Joshua's Creek</u>								
		Watercourse Crossing #	<u>Map 163-Mile 148.2</u>								
		Location	<u>Oakville</u>								
Municipal Information											
Municipality or Township:	Town of Oakville 905-845-6606 After Hours emergency number	City of Mississauga 311 or 905-615-4311 (outside city)									
Contact:	Director of Roads (Oakville)	Commissioner of Transportation and Works									
Telephone:	(905) 845-6601 ext.3315	(905) -615-3200 ext 5112 24 hr Dispatch 905-615-3000									
Fire:	911 or (905) 637-8253	911 or (905) 615-3777									
Police:	911 or (905) 878-5511 Halton Regional Police cover: Burlington, Oakville, Milton, George Town & Acton	911 or (905) 453-3311									
Ambulance:	911	911									
Regional Spill Response Coordinator	Spill Response Team Halton Region	Spill Response Coordinator									
Telephone	(905) 825-6000 24 Hour Number	(905) 791-7800 24hr Number									
1. Watercourse characteristics at pipeline crossing:											
<table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Estimated velocity</th> <th style="text-align: left;">Dimensions</th> <th colspan="2" style="text-align: left;">Other</th> </tr> </thead> <tbody> <tr> <td>Fall: .2m/s</td> <td>Avg. Width: 2m Avg. Depth: .2m Max. Width: 3-4m</td> <td>Bed Material:</td> <td>silty stone</td> </tr> </tbody> </table>				Estimated velocity	Dimensions	Other		Fall: .2m/s	Avg. Width: 2m Avg. Depth: .2m Max. Width: 3-4m	Bed Material:	silty stone
Estimated velocity	Dimensions	Other									
Fall: .2m/s	Avg. Width: 2m Avg. Depth: .2m Max. Width: 3-4m	Bed Material:	silty stone								
2. Potential environmental sensitivities:											
<p>Creek runs through farmlands. Bisepts White Oaks Golf Club and The Parkway and just clips the NE corner of the PGA Golf Centre. South of Royal Windsor drive, it flows through Joshua Valley Park and Arkendo Park. The Water Pollution Centre is in close proximity on the west side. Memorial Gardens is a potential water taker.</p>											

SECTION 09.16: Appendices
Pipeline Spill Response Tactics- St. George - Toronto



Joshua's Creek Control Points

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 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Joshua's Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 163-Mile 148.2</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	On Royal Windsor Rd. west of Ford Dr. Hydro access available on road just east of Oakville Transformer Station	southwest corner of 9th Line / Ford Dr and Upper Middle Rd. East (access along boulevard)	Dundas St. just east of 9th Line/Ford Dr. on north side by White Oaks Golf Course (access from both sides of bridge)
Site	Site calm area before railway bridge - 3m wide - .5m deep	Site 3m downstream from Upper Middle Rd East overpass - 2.5m wide - .2m deep	- site at slower section 100m west of Dundas St. - can access from left or right through golf course - 2m wide - .5m deep
Containment Method	- absorbants - vacuum pumps - sorbant boom backup - last control point before lake	- absorbants - vacuum pumps	- absorbants - vacuum pumps
Distance to Control Point	60m	50m	200m

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Loyalist Creek Control Points

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SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Loyalist Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 163 - Mile 149.2</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics- Credit River for detailed plans	No longer accessible	The Collegeway and Mississauga Rd. just west of Mississauga Rd. From the Collegeway, access by Glen Erin Trail
Site			Site south of the Collegeway approx. 20m from Rd by trail - 4m wide - .1m deep
Containment Method			- absorbants - vacuum pump
Distance to Control Point			50m

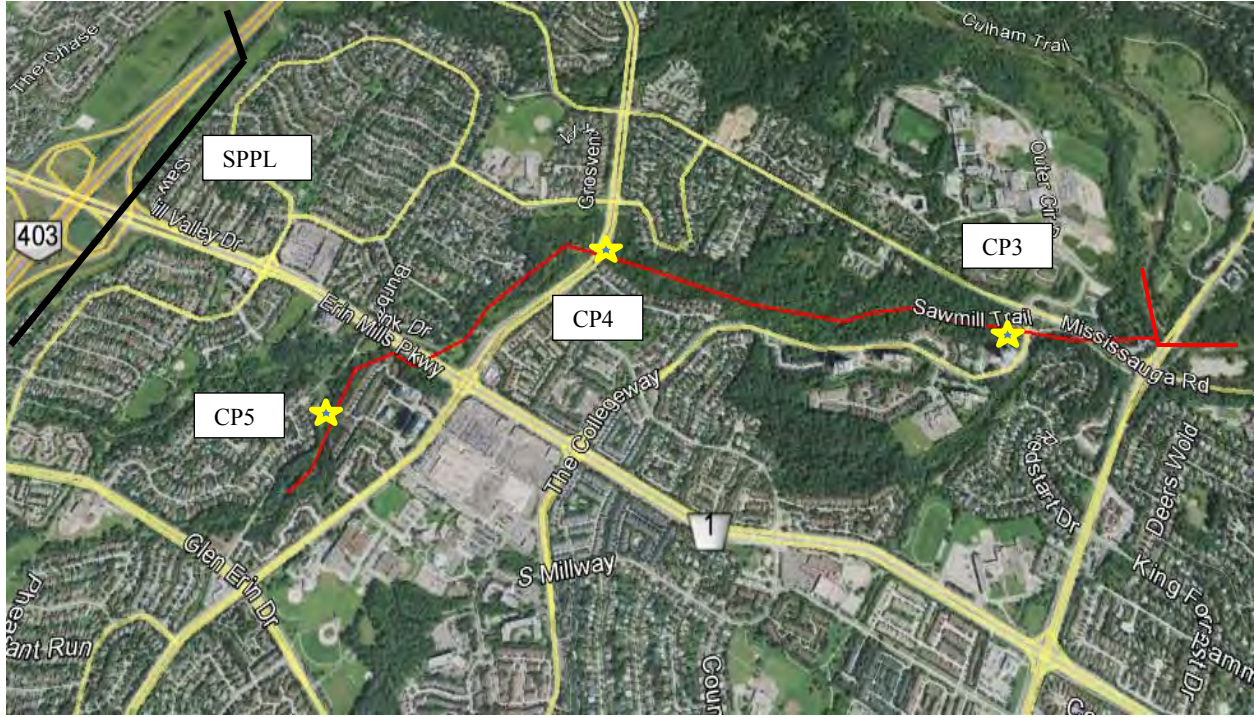
SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Loyalist Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 163 - Mile 149.2</u>	
	Control Point		
	CP4	CP5	CP6
Access/ Location	West side of Winston Churchill Blvd. just south of The Collegeway		
Site	site marshy channel available at north culvert - either remove fence beside or access by gate on Winston Churchill Blvd.		
Containment Method	- absorbants - vacuum pump		
Distance to Control Point	500m		

SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name <u>Sawmill Creek</u> Watercourse Crossing # <u>Map 163 - Mile 150.8</u>						
	Location <u>Mississauga</u>						
Municipal Information							
Municipality or Township:	City of Mississauga 311 or 905-615-4311 (outside city)						
Contact:	Commissioner of Transportation and Works After hours Dispatch						
Telephone:	(905) -615-3200 ext 5112 (905)-615-3000						
Fire:	911 or (905) 615-3777						
Police:	911 or (905) 453-3311						
Ambulance:	911						
Regional Spill Response Coordinator	Spill Response Coordinator						
Telephone	(905) 791-7800 24hr Number						
1. Watercourse Characteristics At Pipeline Crossing: <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left; width: 30%;">Estimated velocity</th> <th style="text-align: left; width: 30%;">Dimensions</th> <th style="text-align: left; width: 40%;">Other</th> </tr> </thead> <tbody> <tr> <td>Fall: .02m/s</td> <td>Avg. Width: 1m Avg. Depth: .02m Max. Width: 3m</td> <td>Bed Material: Stone</td> </tr> </tbody> </table>		Estimated velocity	Dimensions	Other	Fall: .02m/s	Avg. Width: 1m Avg. Depth: .02m Max. Width: 3m	Bed Material: Stone
Estimated velocity	Dimensions	Other					
Fall: .02m/s	Avg. Width: 1m Avg. Depth: .02m Max. Width: 3m	Bed Material: Stone					
2. Potential Environmental Sensitivities: Highly urbanized area. Creek flows through greenbelt and parklands including Arbour Green and Sawmill Parks. Joins the Credit River south of Erindale Park. Erindale Campus of U of T backs onto the creek.							

SECTION 09.1601: Appendices
Pipeline Spill Response Tactics - St. George - Toronto



Sawmill Creek Control Points

SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Sawmill Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 163 - Mile 150.8</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics- Credit River for detailed plans	No longer accessible	corner of Mississauga Rd. and The Collegeway (access by Saw Mill Valley Trail)
Site			site west of channelized section. Reached by trail 50m from road - 4m wide - .2m deep
Containment Method			- absorbants - vacuum pump
Distance to Control Point			50m

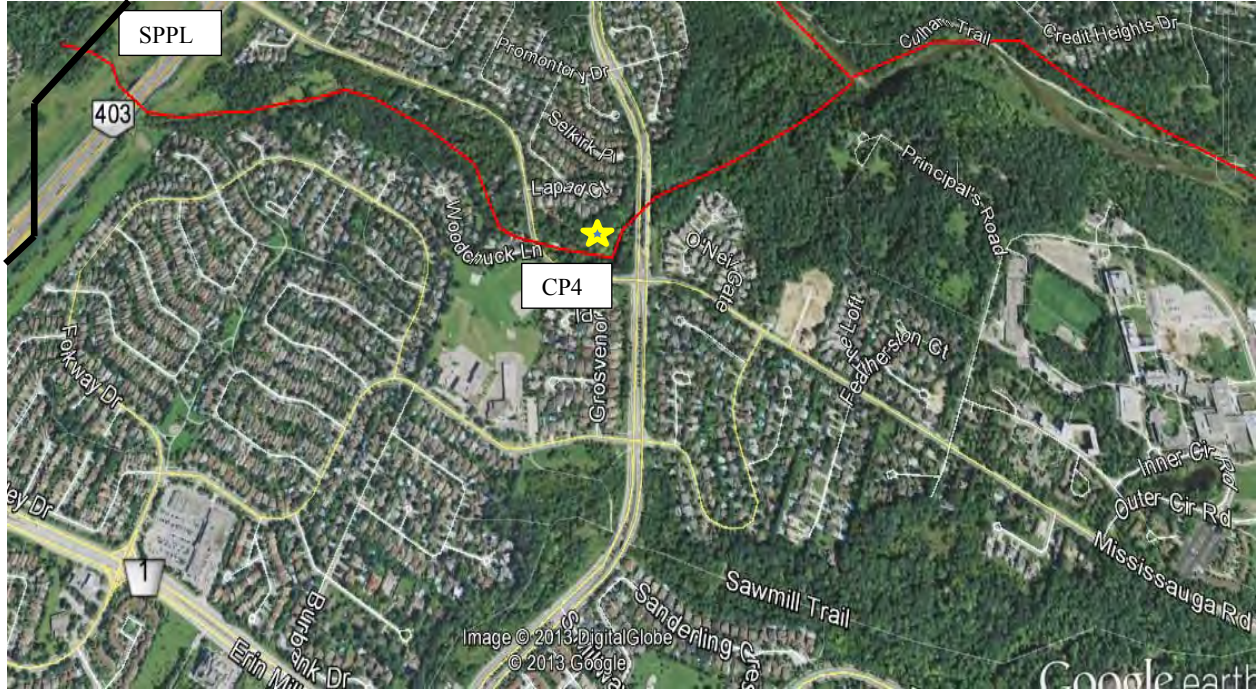
SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name: <u>Sawmill Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 163-Mile 150.8</u>	
	Control Point		
	CP4	CP5	CP6
Access/ Location	corner of Burnhamthorpe Rd. Saw Mill Valley Drive just east of Erin Mills Pkwy. (access on north side through park by foot path)	west off of Erin Mills Pkwy, 300m north of Burnhamthorpe Rd. (access by dead end on left)	
Site	good calm area north of Burnhamthorpe Rod. bridge - 2m wide - 0.2m deep - beside road	site north of channelized section. Fence on left side private yard on right - 1m wide - 0.2m deep	
Containment Method	- absorbants - vacuum pump	- absorbants - vacuum pump	
Distance to Control Point	150m	200m	

SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name <u>Mullet Creek</u> Watercourse Crossing # <u>Map 163 - Mile 152.3</u>						
	Location <u>Mississauga</u>						
Municipal Information							
Municipality or Township:	City of Mississauga 311 or 905-615-4311 (outside city)						
Contact:	Commissioner of Transportation and Works After hours Dispatch						
Telephone:	(905) -615-3200 ext 5112 (905)-615-3000						
Fire:	911 or (905) 615-3777						
Police:	911 or (905) 453-3311						
Ambulance:	911						
Regional Spill Response Coordinator	Spill Response Coordinator						
Telephone	(905) 791-7800 24hr Number						
1. Watercourse Characteristics At Pipeline Crossing: <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left; width: 30%;">Estimated velocity</th> <th style="text-align: left; width: 30%;">Dimensions</th> <th style="text-align: left; width: 40%;">Other</th> </tr> </thead> <tbody> <tr> <td>Fall: .2m/s</td> <td>Avg. Width: 2m Avg. Depth: .2m Max. Width: 10m</td> <td>Bed Material: silt stone</td> </tr> </tbody> </table>		Estimated velocity	Dimensions	Other	Fall: .2m/s	Avg. Width: 2m Avg. Depth: .2m Max. Width: 10m	Bed Material: silt stone
Estimated velocity	Dimensions	Other					
Fall: .2m/s	Avg. Width: 2m Avg. Depth: .2m Max. Width: 10m	Bed Material: silt stone					
2. Potential Environmental Sensitivities: Urbanized. Mature ravine woodlands. Joins Credit River in Promontory Woods.							

SECTION 09.1601: Appendices
Pipeline Spill Response Tactics - St. George - Toronto



Mullet Creek Control Points

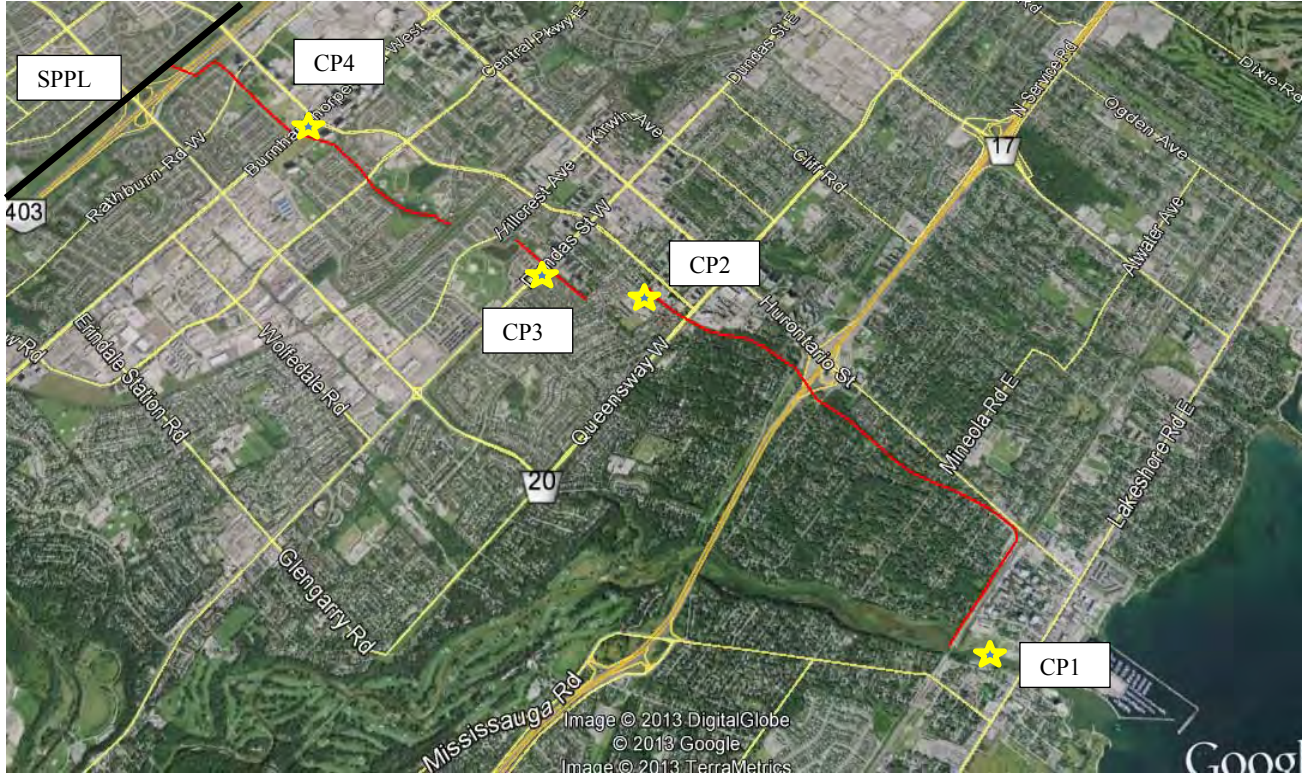
SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name:	<u>Mullet Creek</u>
Pipeline Spill Response Tactics		Watercourse Crossing #	<u>Map 163 - Mile 152.3</u>
	Control Point		
			CP4
Access/ Location	CP1 & CP3 See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans Note: CP2 no longer accessible.		Mississauga Rd north of Burnhamthorpe Rd. (access through private yard)
Site			site on north side of road through private yard - small fall with good pool - 10m wide - 1.5m deep
Containment Method			- absorbants - vacuum pump - sorbant boom in high flow
Distance to Control Point			100m

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics		Watercourse Name	<u>Mary Fix Creek</u>
		Watercourse Crossing #	<u>Map 163 - Mile 155</u>
		Location	<u>Mississauga</u>
Municipal Information			
Municipality or Township:	City of Mississauga 311 or 905-615-4311 (outside city)		
Contact:	Commissioner of Transportation and Works	After hours Dispatch	
Telephone:	(905) -615-3200 ext 5112	(905)-615-3000	
Fire:	911 or (905) 615-3777		
Police:	911 or (905) 453-3311		
Ambulance:	911		
Regional Spill Response Coordinator	Spill Response Coordinator		
Telephone	(905) 791-7800 24hr Number		
1. Watercourse Characteristics At Pipeline Crossing:			
Estimated velocity	Dimensions	Other	
Fall: .02m/s	Avg. Width: 2m Avg. Depth: .02m Max. Width: 10m	Bed Material: limestone	
2. Potential Environmental Sensitivities:			
Highly urbanized area. Bisects Dr. Martin L. Dobkin Community and Credit View Gardens and urban greenbelt. Mississauga Hospital is 800m west of Creek. Mary Fix Creek is underground north of Burnhamthorpe to north of Central Parkway West and again south of Dundas St W to The Queensway.			

SECTION 09.16: Appendices
Pipeline Spill Response Tactics- St. George - Toronto



Mary Fix Creek Control Points

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name <u>Mary Fix Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 163 - Mile 155</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics- Credit River for detailed plans	Paisley Blvd. west of Conferation Pwky. Access on south side, Creek buried on north side	On Dundas St. west of Hurontario St. Access on north side of road, west of bridge
Site		Fence and gate blocking access. Good pool right beside road - 7m wide - 1m deep	Fence and gate blocking access channelized - 2m wide - 0.1m deep
Containment Method		- Absorbants - Vacuum pump	- Absorbants - Vacuum pump
Distance to Control Point			

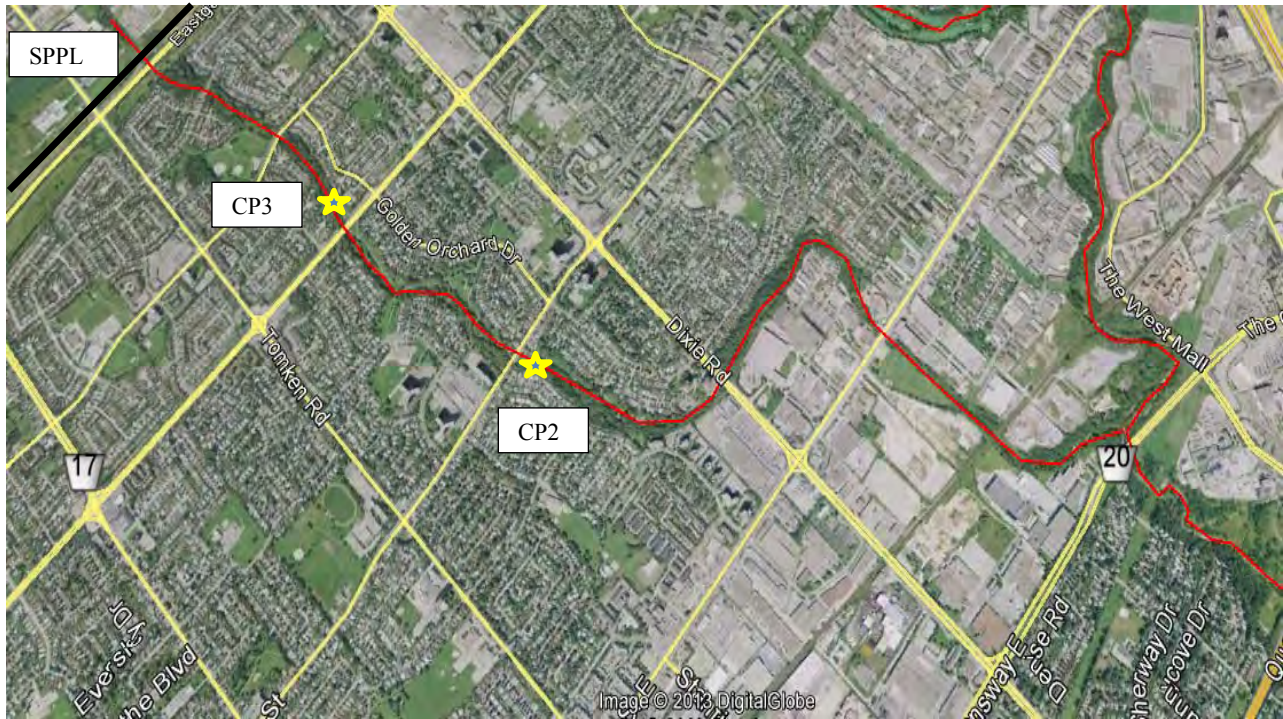
SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name	
Pipeline Spill Response Tactics		<u>Mary Fix Creek</u>	
		Watercourse Crossing #	
		<u>Map 163 - Mile 155</u>	
	Control Point		
	CP4	CP5	CP6
Access/ Location	on Burnhamthorpe Rd. west of Confederation Pkwy. Access on north side		
Site	Dry creek bed north of marshy area, 50m from road		
Containment Method	<ul style="list-style-type: none"> - Absorbants - Vacuum pump 		
Distance to Control Point			

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics		Watercourse Name <u>Little Etobicoke Creek</u>						
		Watercourse Crossing # <u>Map 163 - Mile 157.5</u>						
		Location <u>Etobicoke</u>						
Municipal Information								
Municipality or Township:	City of Toronto (Etobicoke) 311 or 416-392-2489 24/7 numbers							
Contact:								
Telephone:								
Fire:	911 or Dispatch (416) 338-9000							
Police:	911 or (416) 808-2222							
Ambulance:	911 or (416) 392-2000							
Regional Spill Response Coordinator	Toronto Spill Response	Ministry of the Environment - 24 hr Spills Action Center						
Telephone	311	(416) 325-3000 or 1-800-268-6060						
<p>1. Watercourse Characteristics At Pipeline Crossing:</p> <table border="0"> <thead> <tr> <th>Estimated velocity</th> <th>Dimensions</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td>Fall: .2m/s</td> <td>Avg. Width: 3m Avg. Depth: .5m Max. Width: 4m</td> <td>Bed Material: silt/gravel</td> </tr> </tbody> </table>			Estimated velocity	Dimensions	Other	Fall: .2m/s	Avg. Width: 3m Avg. Depth: .5m Max. Width: 4m	Bed Material: silt/gravel
Estimated velocity	Dimensions	Other						
Fall: .2m/s	Avg. Width: 3m Avg. Depth: .5m Max. Width: 4m	Bed Material: silt/gravel						
<p>2. Potential Environmental Sensitivities:</p> <p>Flows through highly industrialized area</p> <p>Flows through the small urban parks of Rathwood, Applewood Hills and Willow Creek.</p>								

SECTION 09.16: Appendices
Pipeline Spill Response Tactics- St. George - Toronto



Little Etobicoke Creek Control Points

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name <u>Little Etobicoke Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 163 - Mile 157.5</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	See Section 09-1604 High Water Action Plan & Pipeline Spill Response Tactics – Etobicoke Creek CP1 & CP 1A for detailed plans.	small park across from Apple Hills Medical Centre on Bloor St. just west of Golden Dr Orchard (access on south side)	by Golden Orchard Montessori School on north side of Burnhamthorpe west of Golden Orchard access on north side
Site		<ul style="list-style-type: none"> - south side - small barricade - 100m down before first bend - 3m wide - .5m deep 	<ul style="list-style-type: none"> - small pool north side - 4m wide - .4m deep
Containment Method		<ul style="list-style-type: none"> - Absorbants - vacuum pump 	<ul style="list-style-type: none"> - Absorbants - vacuum pump
Distance to Control Point		100m	20m

SECTION 09.1601: Appendices
Pipeline Spill Response Tactics - St. George - Toronto

This page for drawing of Map 170 named: [SPPL 18](#)

This page for drawing of Map 170A named: [SPPL 19](#)

This page for drawing of Map 170B named: [SPPL 20](#)

SECTION 09.16: Appendices
Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name <u>Mimico Creek</u> Watercourse Crossing # <u>Map 170-Mile 162.2</u>
<p style="text-align: center;">See Section 09-1609 Pipeline Spill Response Tactics- Mimico Creek for detailed plans</p>	

SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics		Watercourse Name	<u>Black Creek</u>
		Watercourse Crossing #	<u>Map 170 - Mile 169</u>
		Location	<u>Etobicoke</u>
Municipal Information			
Municipality or Township:	City of Toronto (Etobicoke & North York)		
	311 or 416-392-2489 24/7 numbers		
Contact:			
Telephone:			
Fire:	911 or Dispatch (416) 338-9000		
Police:	911 or (416) 808-2222		
Ambulance:	911 or (416) 392-2000		
Regional Spill Response Coordinator	Toronto Spill Response	Ministry of the Environment - 24 hr Spills Action Center	
Telephone	311	(416) 325-3000 or 1-800-268-6060	
1. Watercourse Characteristics At Pipeline Crossing:			
Estimated velocity	Dimensions	Other	
Fall: .2m/s	Avg. Width: 4m Avg. Depth: .2m Max. Width: 6-7m	Bed Material: rock/silt	
2. Potential Environmental Sensitivities:			
~ Flows through urbanized area and mature parklands including Derrydowns Park, Northwood Park, Downsview Dells, Keelesdale Park. ~ Bisection of Lambton Golf and Country Club., ~ Oakdale Golf and Country Club potential water user., ~ Topcliff Public School (south of Finch), Beverly Heights Junior School (south of Sheppard), Chalkfarm Public School, St. Gerard Majella Separate School (north of Wilson) back onto the Creek.			

SECTION 09.1601: Appendices
Pipeline Spill Response Tactics - St. George - Toronto



Black Creek Control Points

SECTION 09.16: Appendices
 Pipeline Spill Response Tactics- St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name <u>Black Creek</u>	
Pipeline Spill Response Tactics		Watercourse Crossing # <u>Map 170 - Mile 169</u>	
	Control Point		
	CP1	CP2	CP3
Access/ Location	See Section 09-1605 High Water Action Plan & Pipeline Spill Response Tactics- Humber River CP1& CP1A for detailed plan	Keelesdale Park south on south side of Eglinton Ave., 200m east of Black Creek. Drive access through park	Downsview Park on east side of Jane St., 500m south of Sheppard, access through park
Site		Calm pool 25m to right of southwest parking lot - 8m wide - .5m deep	Calmer deeper water just before creek splits into two to go under Jane Street - 6m wide - .25m deep
Containment Method		Absorbents Vacuum pumps	Absorbents Vacuum pumps
Distance to Control Point		500m	100m

SECTION 09.1601: Appendices
 Pipeline Spill Response Tactics - St. George - Toronto

SARNIA PRODUCTS PIPELINE		Watercourse Name	
Pipeline Spill Response Tactics		<u>Black Creek</u>	
		Watercourse Crossing #	
		<u>Map 170 - Mile 169</u>	
		Control Point	
		CP4	CP5
		CP6	
Access/ Location	Northwood Park north side of Sheppard, 1 km east of Jane, access through park		
Site	Pool by concrete footing 100m on left. Slower water 200m farther up bridge, 8m wide - water somewhat shallower		
Containment Method	Absorbents Vacuum pumps		
Distance to Control Point	300m		

SECTION 09.16: Appendices
Pipeline Spill Response Tactics- St. George - Toronto

This page for drawing of Map 186 named: [SPPL 24](#)

TITLE **Imperial Facility - Emergency Response Plan**
SECTION 09: Appendices
SUBJECT 1603: [High Water Action Plan & Pipeline Spill Response Tactics – Credit River](#)

Plan Index and Hyperlinks

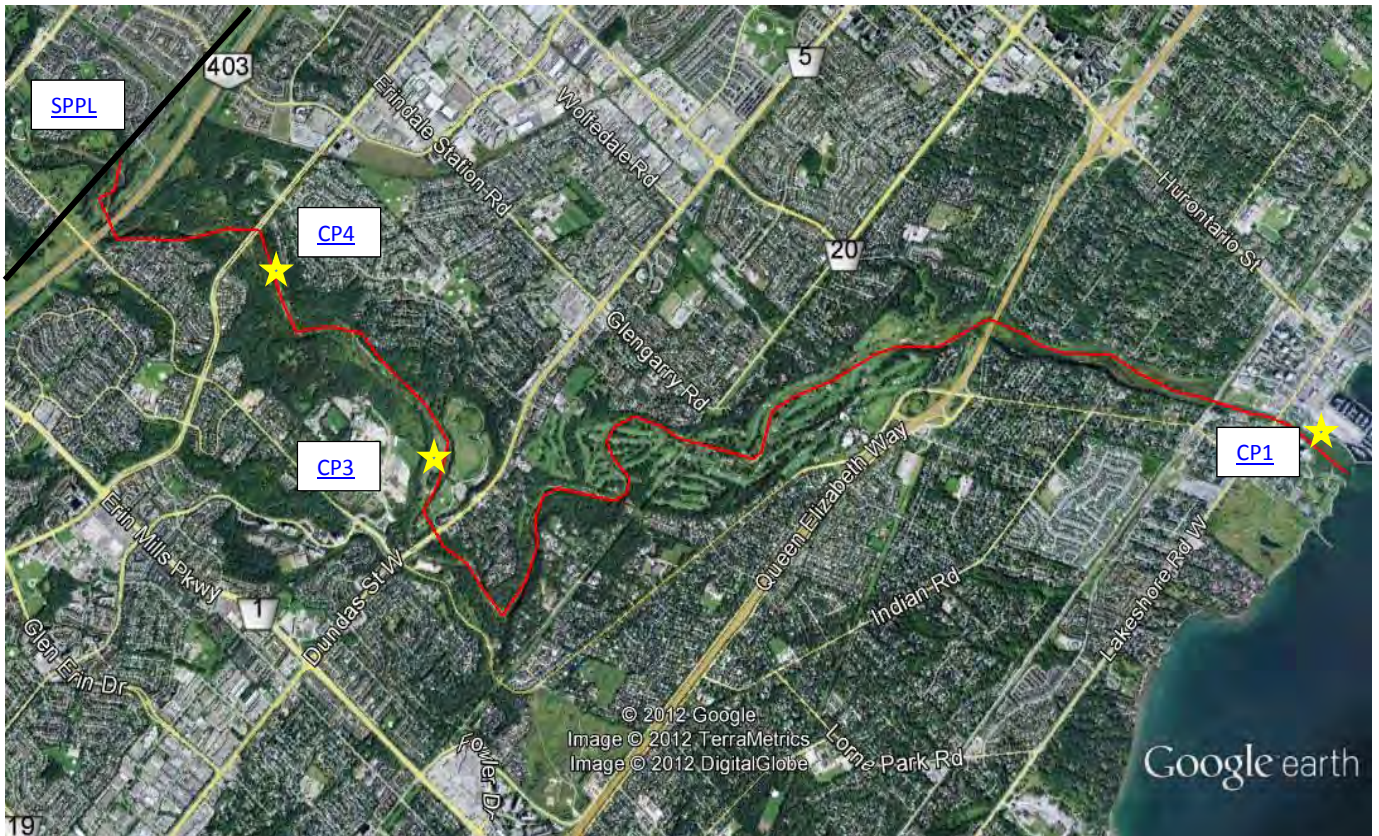
Title
Municipal Information
Overview
High Water Action Plan
Flood Monitoring Action Table
Site Specific Emergency Response Tactics

SARNIA PRODUCTS PIPELINE High Water Action Plan and Pipeline Spill Response Plans		Watercourse Name	<u>Credit River</u>												
		Watercourse Crossing #	<u>Map 163-Mile 152.5</u>												
		Location	<u>Mississauga</u>												
Municipal Information															
Municipality or Township:	City of Mississauga 311 or 905-615-4311 (outside city)														
Contact:	Commissioner of Transportation and Works	After hours Dispatch													
Telephone:	(905) -615-3200 ext 5112	(905)-615-3000													
Fire:	911 or (905) 615-3777														
Police:	911 or (905) 453-3311														
Ambulance:	911														
Regional Spill Response Coordinator	Spill Response														
Telephone	(905) 791-7800 24hr Number														
1. Watercourse Characteristics: <table border="0"> <thead> <tr> <th>Volumetric Flow Rate (daily)</th> <th>Dimensions</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td>Avg: 8.14 m³/s (2010)</td> <td>Avg. Width: 20m</td> <td>Bed Material: rocky/gravel</td> </tr> <tr> <td>Max. 111.0 m³/s (2009)</td> <td>Avg. Depth: 0.5-5m</td> <td></td> </tr> <tr> <td>Min. 2.0 m³/s (2007)</td> <td>Max. Width: 30m</td> <td></td> </tr> </tbody> </table>				Volumetric Flow Rate (daily)	Dimensions	Other	Avg: 8.14 m ³ /s (2010)	Avg. Width: 20m	Bed Material: rocky/gravel	Max. 111.0 m ³ /s (2009)	Avg. Depth: 0.5-5m		Min. 2.0 m ³ /s (2007)	Max. Width: 30m	
Volumetric Flow Rate (daily)	Dimensions	Other													
Avg: 8.14 m ³ /s (2010)	Avg. Width: 20m	Bed Material: rocky/gravel													
Max. 111.0 m ³ /s (2009)	Avg. Depth: 0.5-5m														
Min. 2.0 m ³ /s (2007)	Max. Width: 30m														
2. Potential Environmental Sensitivities: In vicinity of urbanized areas. Many species of birds (44) and fish (64) including migratory trout and salmon. Flows through large greenbelt of mature ravine woodlands. Bisects Promontory Woods and Erindale Park. Flows through Mississauga Golf and Country Club and Credit Valley Golf and Country Club. At the mouth is the Port Credit Harbour and Saddington Park. Erindale Campus - U of T, Memorial Park and J.J. Plains park are potential water rights users. Note: CP2 is no longer accessible as indicated on MAP 163															

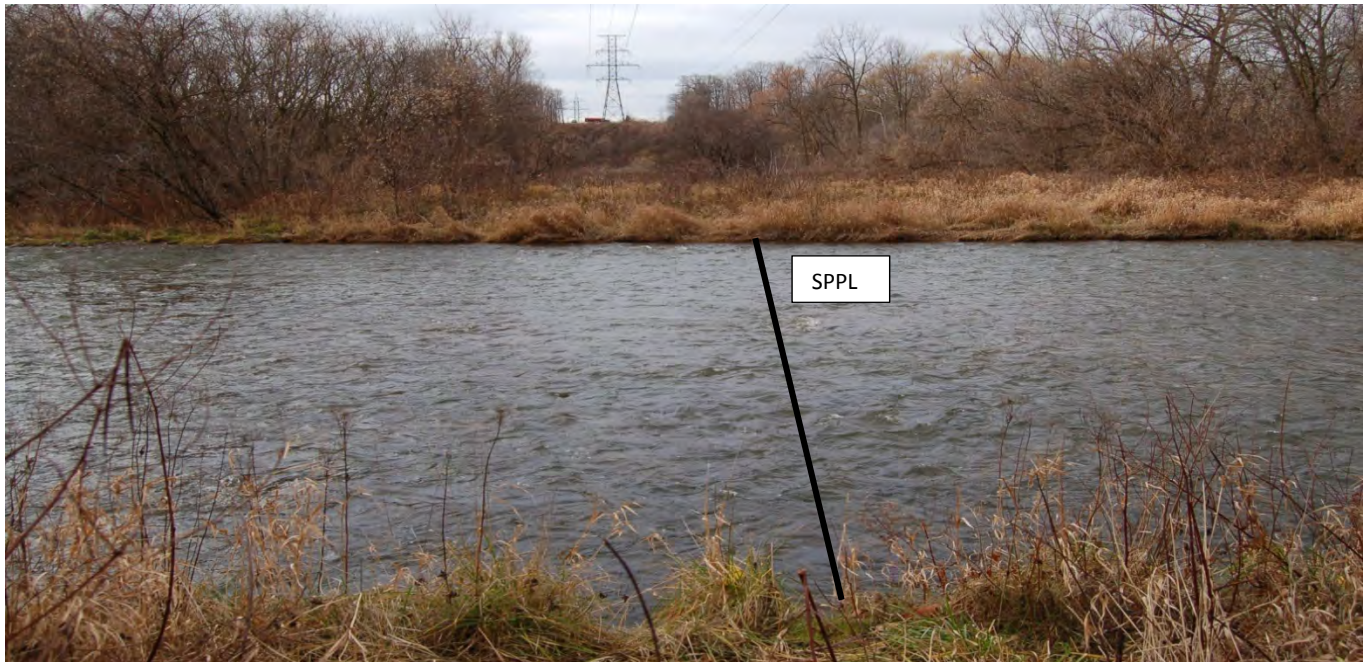
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High Water Action Plan & Pipeline Spill Response Tactics – Credit River



Overview (Figure 16A-1)

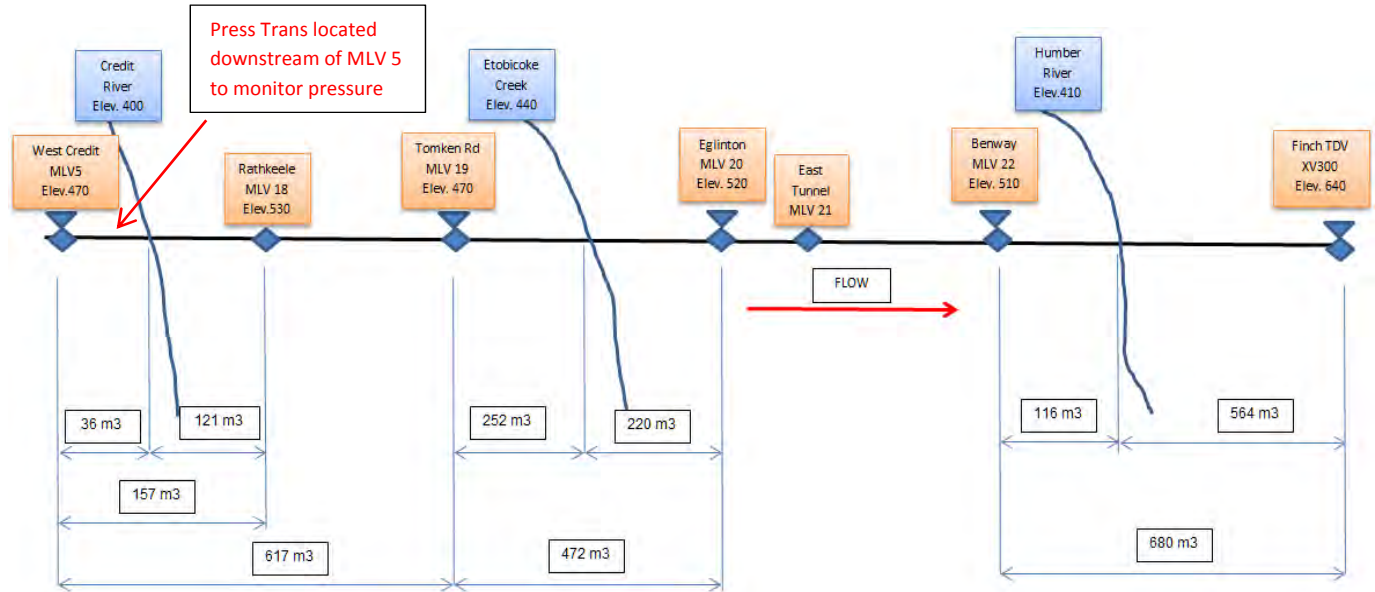


Pipeline Crossing at Credit River looking west (Figure 16A-2)

SECTION 09.1603: Appendices
 High Water Action Plan & Pipeline Spill Response Tactics – Credit River

HIGH WATER ACTION PLAN

SCHEMATIC OF PIPELINE CROSSINGS



RESOURCES AT RISK (PEOPLE/PROPERTY/ENVIRONMENT)

River banks, residential impact, wildlife and fish habitat, parklands, marinas and golf courses, Lake Ontario

SYSTEM CONSIDERATIONS

- a. *Crossing surveys*
 Depth of Cover survey completed in 2012
- b. *Leak detection utilized*
 System currently protected with Linegard leak detection technology.
- c. *Crossing displacement procedures*
 FV 8228005 (West Credit River MLV5) to MLV 18 (Rathkeele),
 Displacement, 2094 metres = 157m3
 Actual Purge from Waterdown to Finch - 4700m3
- d. *Materials, equipment, and labor needed to shut down or displace crossing*
 Displacement pig, nitrogen truck, light plant if at night. No temporary facilities in place, Line will be required to be purged from Waterdown pump station.
- e. *Determine where water, materials, equipment, etc. would be obtained and/or stored when needed in event situations*
 Vac truck will be brought in locally as needed through the General Service Provider. Nitrogen truck will be sourced out Sarnia, Ont. and contractors will be sourced out of Richmond Hill, Ont.
- f. *Outline materials, equipment, labor, etc. needed to inspect crossing after an event*
 Local survey engineer would be sourced out of Toronto, Ont. to survey crossing.
- g. *Other crossings/system considerations*
 Shutting down this section of pipeline would shut down deliveries of refined product to the Imperial Oil, Finch Bulk Terminal which will reduce supply to this site and reduce throughput from the Imperial Oil, Sarnia refinery. This will have a substantial financial impact to the corporation and potential supply issues in the Southern Ontario market. There are multiple pipelines at this crossing, so they will most likely be involved if IOL's pipeline is affected.

CRITICAL FACILITIES

- h. *Include valve locations, alternate access routes or sites to be used (in the event that flooding restricts access to, or submerges those facilities)* All isolation valves are located well above the flood zone.
FV 8228005 (West Credit River MLV 5) to MLV 18 (Rathkeele Block Valve)
- i. *Include provisions to address power or communication failure*
See SPPL Control Center ER Manual CC -07-02 for power and communication failure procedures.
- j. *Include considerations for de-energizing electrical components that are expected to be submerged*
All isolation valves are located well above the flood zone.
- k. *Include considerations for marking locations with buoys, if warranted*
N/A
- l. *Extend regulator vents and relief stacks above level of anticipated flooding, as appropriate*
N/A

ESCALATING RESPONSE ACTION (AS THREAT TO PIPELINE INCREASES)

Local operations are responsible for notifying OCC of flood status in the area, based on Environment Canada data, local knowledge, or flood watch guidance. The primary source of data that local operations will use for initial notification of potential existence of flooding conditions is via email notification to the area manager and the operations supervisor from the local regional conservation authorities Flood Alert Notification process as well as reviewing the data available on the Environment Canada, Ministry of Natural Resources and Conservation authority websites. Other sources of initial notification for local operations would be local news reports or site specific knowledge of potential for flooding, and any other available data sources (Consider <http://www.wateroffice.ec.gc.ca> or <http://www.creditvalleyca.ca/>)






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SECTION 09.1603: Appendices
 High Water Action Plan & Pipeline Spill Response Tactics – Credit River

The gauging colour table below is used by the Ministry of Natural Resources and Ontario Conservation Authority to advise of flooding based on the continually monitoring of the streams, creeks and rivers. This is to be used to cross reference action items to the Flood Monitoring Action Table (FMAT) on page 7 & 8..

Gauging Colour Table

Reference

<p>Normal</p>  <p>NORMAL generally indicates low flow to base flow conditions. It should be noted that during Normal flow conditions, the inherent risk to personal safety associated with flowing water still exists.</p>	<p>No Action Required</p>
<p>Water Safety Statement</p>  <p>WATER SAFETY STATEMENT High flows, unsafe banks, melting ice or other factors that could be dangerous for recreational users such as anglers, canoeists, hikers, children, pets, etc. Flooding is not expected.</p>	<p>Scenario 1 on FMAT</p>
<p>Flood Outlook Statement</p>  <p>FLOOD OUTLOOK STATEMENT Early notice of the potential for flooding based on weather forecasts calling for heavy rain, snow melt, high wind or other conditions that could lead to high runoff, cause ice jams, lakeshore flooding or erosion.</p>	<p>Scenario 1 on FMAT</p>
<p>Flood Watch</p>  <p>FLOOD WATCH Flooding is possible in specific watercourses or municipalities. Municipalities, emergency services and individual landowners in flood-prone areas should prepare.</p>	<p>Scenario 2 on FMAT</p>
<p>Flood Warning</p>  <p>FLOOD WARNING Flooding is imminent or already occurring in specific watercourses or municipalities.</p>	<p>Scenario 3 & 4 on FMAT plus monitoring of real time levels from HYDAT on Environment Canada website.</p>

SECTION 09.1603: Appendices
 High Water Action Plan & Pipeline Spill Response Tactics – Credit River

FLOOD MONITORING ACTION TABLE

Upon initial notification, local operations will use the following table to evaluate and determine appropriate action based on the condition:

*Water levels are based on river data from the Environment Canada website

Scenario	Condition	Criteria/Considerations	Communication
1	Flood potential	<ul style="list-style-type: none"> • Potential for Water level rising & increased flow. 	Notify OCC and Operations East Manager
<p>Specific Follow-ups/ Actions</p> <ul style="list-style-type: none"> • Alert/Awareness only • Monitor longer term forecast & advise management 			
Scenario	Condition	Criteria/Considerations	Communication
2	Minor/Flood Stage	<ul style="list-style-type: none"> • Evidence of bank erosion • Pipe exposed in crossing and active debris • Increase in amount and/or size of debris 	<p>Consider local ESG</p> <p>Notify other pipeline owner/operators within this crossing</p>
<p>Specific Follow-ups/Actions</p> <ul style="list-style-type: none"> • Increased surveillance Daily visual inspection/ monitoring <ul style="list-style-type: none"> ○ Communicate with Corporate ER coordinator for ESG potential ○ Continuous Environment Canada & conservation authority website monitoring ○ Aerial Patrol (if warranted and as conditions allow) ○ Evaluate operating parameters relative to the situation based on river forecast, ○ Constant communication/update required to OCC 			

SECTION 09.1603: Appendices
 High Water Action Plan & Pipeline Spill Response Tactics – Credit River

FLOOD MONITORING ACTION TABLE (cont'd)

Scenario	Condition	Criteria/Considerations	Communication
3	Moderate	<ul style="list-style-type: none"> • Criteria 2 And/or • Increased river flow rate nearing historical max flows 	Consider formal ESG Consider agency notification (if pressure reduction is taken) Consider other operator notification
<p>Specific Follow-ups/Actions</p> <ul style="list-style-type: none"> • Action 2 (as conditions allow) + <ul style="list-style-type: none"> ○ Communicate with Corporate ER coordinator for ESG potential ○ Determine if pressure reduction should be implemented (review with Integrity advisor) <ul style="list-style-type: none"> ▪ Under normal conditions pipeline typically is operating @1500kpa or under. In shutdown conditions pipeline should have 1000-1500kpa to hold interface tight and monitor for pressure loss. If conditions are such that pressures are greater than listed above, then the OCC should be notified to reduce to 1500kpa (at Waterdown Station) ○ Engage Conservation authorities as applicable ○ Constant communication/update required to OCC ○ Begin preparations for potential displacement (be ready to execute displacement plan) <ul style="list-style-type: none"> ▪ Review <u>JSEP</u> and all pertinent data ▪ Have IOL & Contractor person power available ▪ Ensure N2 contractor available and put on standby if necessary 			
Scenario	Condition	Criteria/Considerations	Communication
4	Major	<ul style="list-style-type: none"> • Criteria 3 And/or • Personnel unable to reach crossing/facilities for inspection 	ESG Potential agency notification Consider other operator notification
<p>Specific Follow-ups/Actions</p> <ul style="list-style-type: none"> • Action 3 (as conditions allow) + <ul style="list-style-type: none"> ○ Pursue other methods of surveillance of areas. (helicopter, boat) ○ Consider shutdown & closure of any manual valves ○ Consider isolation and/or purging of section 			

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SECTION 09.1603: Appendices
High Water Action Plan & Pipeline Spill Response Tactics – Credit River

RESPONSE

- m. Identify individuals who will be monitoring locations/outline monitoring plan*
Local operation personnel, supervisor, air patrol spotter
- n. List response organizations to be contacted if needed*
ESG, Imperial Oil NAART, Quantum Murray, ECRC, Credit Valley Conservation Authority

RESTORATION

During flood, high water, high flow conditions, once the river crossing valves are closed, they will not be re-opened by OCC or local personnel until an evaluation of the line is completed. The evaluation will include:

- o. Evaluation of conditions along the pipeline and potential remedial actions
- p. Determination if facilities require:
 - i. Detailed examination for possible damage
 - ii. Consideration for operating at reduced pressure or shutdown until damage is assessed
- q. Ensuring line markers are in place or replaced in a timely manner
- r. Consideration to notify contractors and others involved of the pipeline's presence and the risks posed by reduced cover.
- s. Communication with Technical Standards and Safety Authority (TSSA) as appropriate given the event.

OTHER CONSIDERATIONS / INFORMATION

Work with local conservation authorities to address any impending issues. No requirement at this time for regulatory notification, however consider keeping TSSA up to date as an FYI.

SECTION 09.1603: Appendices
High Water Action Plan & Pipeline Spill Response Tactics – Credit River

SITE SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than one containment point can be worked simultaneously: Note: Contractor response time (QMLP 2hrs.from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

**1st PRIORITY:
PROCEED TO CP1**

NEAREST EQUIP SHOP (QMLP)52 kms **EST. TRAVEL TIME:** 40 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates – N 43° 33.040', W 079° 35.366'**
25 Front St S, Port Credit, L5E 1G4

Take QEW East to Mississauga Rd. South (exit 130). Left at Sheridan Way to Mississauga Rd South. Right on Miss Rd to Lakeshore. Left at Lakeshore to Front St. left at Front St. Don Rowing Club is at 25 Front St. (Figure 16A-3)

ACCESS NOTES/SITE PREPARATION:

West side of Credit R. @ Don Rowing Club
(Figure 16A-4) Use parking area immediately to south if unable to access.

Call Don Rowing Club (905) 274-1871 to advise of emergency and permission to access.

WORKSPACE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** At Dow Rowing club or in municipal parking lot immediately to the south.

BOAT LAUNCH:

Don Rowing Club	or ...	Credit Village Marina
25 Front St		12 Stavebank Road
Port Credit (905) 274-1871		Mississauga, ON L5G-2T4 (905) 615-4880

STREAM WIDTH: 20-25m **STREAM DEPTH:** 5 m **BED MATERIAL:** Rocky/ gravel

CONTAINMENT METHOD

Use boat, 90 cm commercial boom
Anchor upstream of boat
Sorbent booms
Last containment point before Lake Ontario
Install deflecting boom (both sides) for Port Credit harbour south of site access by Stavebank Rd (Figure 16A-5) to protect marina.

WATER RIGHTS USERS:

Front St. pumping station located at the marina
See page 1

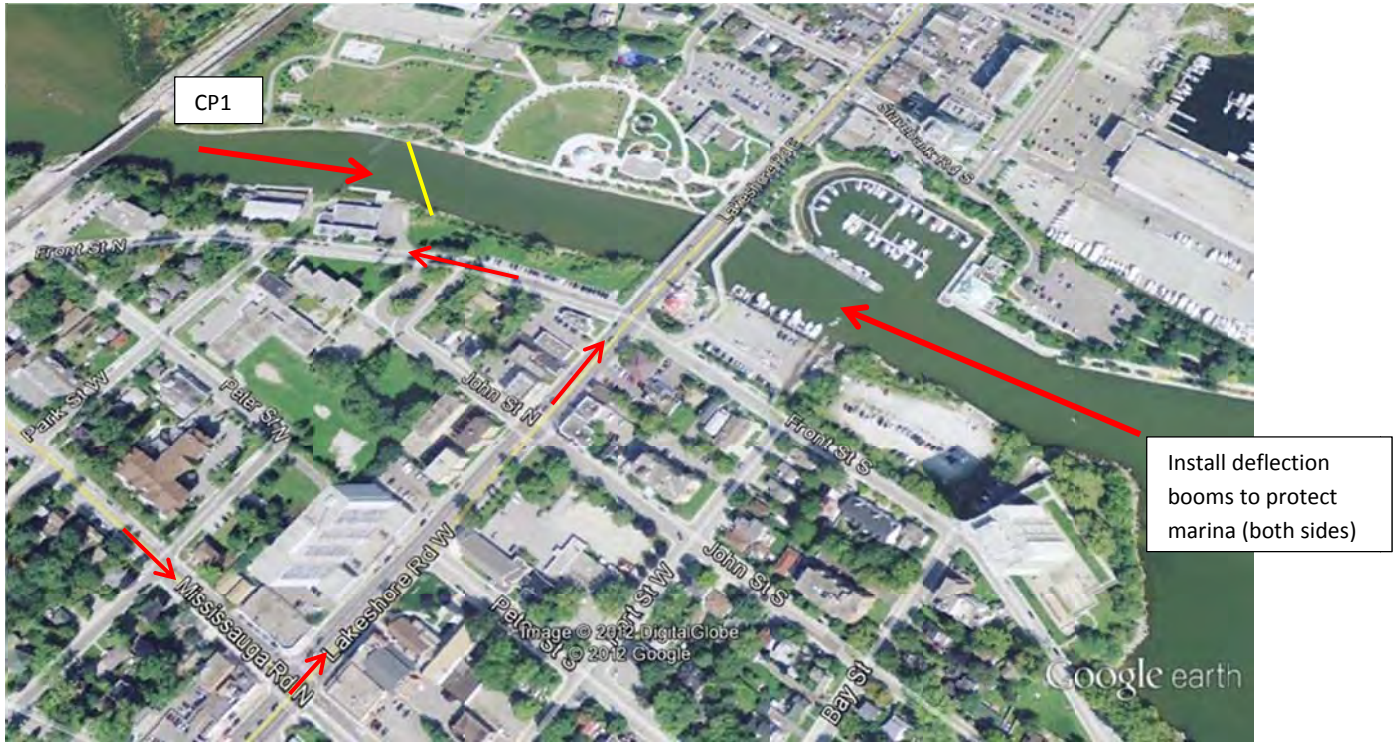
DIST. UPSTREAM TO PIPELINE: 11.6kms

UPSTREAM C.P. 9.2 kms

DOWNSTREAM C.P: NA

SECTION 09.1603: Appendices
High Water Action Plan & Pipeline Spill Response Tactics – Credit River

SPPL Credit River CP1



Access @ 25 Front St. Port Credit (Figure 16A-3)



Boom deployment & containment CP1–Don Rowing Club, 25 Front St., Port Credit (Figure 16A-4)

SECTION 09.1603: Appendices
High Water Action Plan & Pipeline Spill Response Tactics – Credit River

SPPL Credit River CP1



Deflection Booms to be installed to protect marina. (Figure 16A-5)

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SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**2nd PRIORITY:
PROCEED TO CP3**

NEAREST EQUIP SHOP (QMLP) 49 kms **EST. TRAVEL TIME:** 37 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates – N 43° 32.812, W 079° 39.273'**
Erindale Park, 1695 Dundas St/ W., Mississauga

Take QEW East to Erin Mills Parkway Exit 126. North on Erin Mills Parkway to Dundas St. Turn Right at Dundas St. Proceed east for 1.2 kms to entrance to park on left.

ACCESS NOTES/ SITE PREPARATION:

CP located on west side by bridge (Figures 16A-7&8). Truck access to river is best through north side (locked gate) See Figure 16A-6. Otherwise large boulders along driveways will need to be removed to gain access. Staging area in parking lot to north of main parking lot (less public interaction)

Call City of Mississauga dispatch at (905)-615-3000

WORKSPACE SIZE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** North parking lot of park

BOAT LAUNCH: not required

STREAM WIDTH: 15-20m **STREAM DEPTH:** 1.0 m **BED MATERIAL:** Rocky/ gravel

CONTAINMENT METHOD

Utilize barricades with fencing
Sorbent materials & booms

WATER RIGHTS USERS:

See page 1

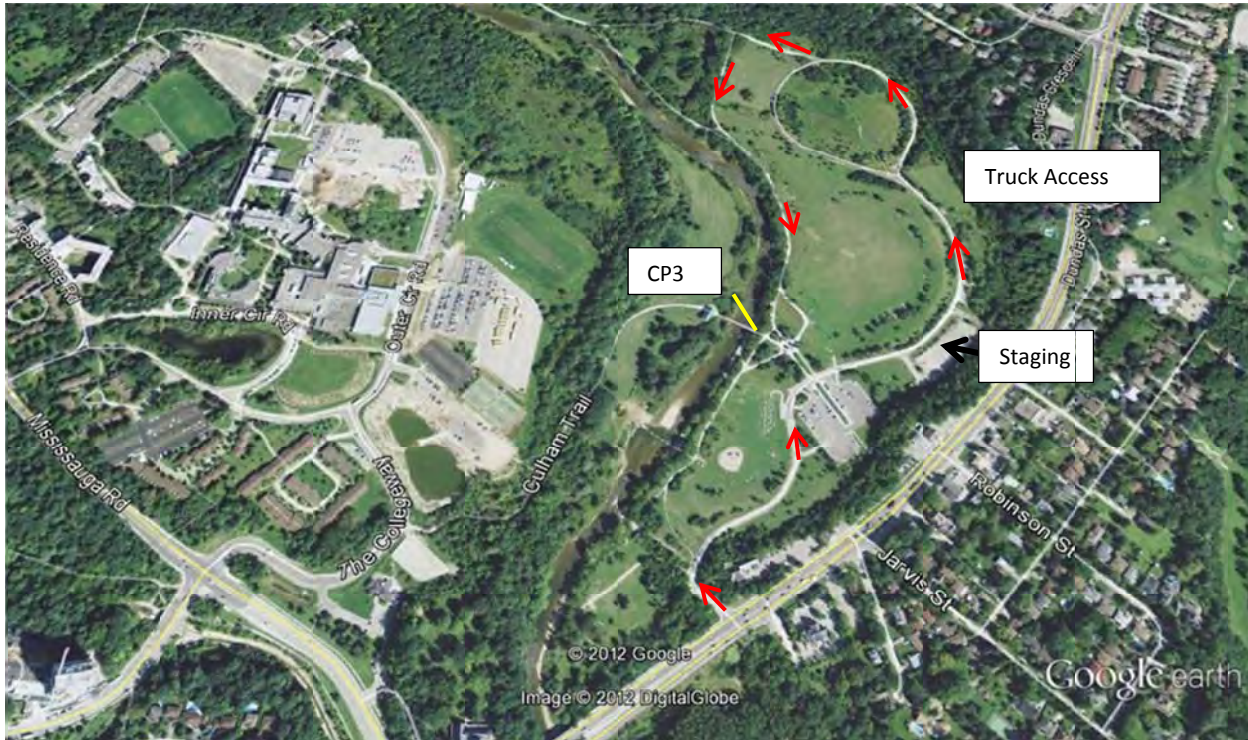
DIST. UPSTREAM TO PIPELINE: 3.5 kms

UPSTREAM C.P: 1.9 kms

DOWNSTREAM C.P: 9.2 kms

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High Water Action Plan & Pipeline Spill Response Tactics – Credit River

SPPL Credit River CP3



Access@ Erindale Park, 1695 Dundas St. W., Mississauga (Figure 16A-6)



Boom Placement CP3 (Figure 16A-7)

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High Water Action Plan & Pipeline Spill Response Tactics – Credit River



Boom Placement CP3 (Figure 16A-8)

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High Water Action Plan & Pipeline Spill Response Tactics – Credit River

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**3rd PRIORITY:
PROCEED TO CP4**

NEAREST EQUIP SHOP (QMLP) 52 kms. **EST. TRAVEL TIME:** 40 minutes

DIRECTIONS TO CONTAINMENT POINT: GPS Co-ordinates – N 43° 33.812', W 079° 40.258'
Riverwood Park, Intersection of Riverwood & 1453 Burnhamthorpe Rd. Mississauga

Take QEW East to Erin Mills Parkway Exit 126. North on Erin Mills Parkway to Burnhamthorpe Rd. Right on Burnhamthorpe to Riverwood Park approx. 0.5 kilometers past Promontory Cres. Make 1st left entering park to Culham Trail. (Figure 16A-9)

ACCESS NOTES/ SITE PREPARATION:

Staging area in parking lot to Culham Trail access beside bridge. Site access is limited to smaller vehicles (small vac truck) through entrance to trail. CP located on west side of river approx. 1 km from parking lot (500 m south of Burnhamthorpe bridge Figures 16A-9&10).

Storm sewer outfall & tributary of Credit located downstream of CP4.

Credit Valley Conservation (905)-670-1615

WORKSPACE SIZE: Access is tight **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** In parking lot of Culham trail access.

BOAT LAUNCH: not required

STREAM WIDTH: 15m **STREAM DEPTH:** 0.3-1.0 m **BED MATERIAL:** Rocky /gravel

CONTAINMENT METHOD

Utilize barricades with fencing
Sorbent materials & booms

WATER RIGHTS USERS:

See page 1

DIST. UPSTREAM TO PIPELINE: 1.6 kms

UPSTREAM C.P: NA

DOWNSTREAM C.P: 1.9 kms

SECTION 09.1603: Appendices
High Water Action Plan & Pipeline Spill Response Tactics – Credit River

SPPL Credit River CP4



Access @ Riverwood Park, Riverwood & 1453 Burnhamthorpe Rd (Figure 16A-9)



Boom Placement CP4 (Figure 16A-10)

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TITLE **Imperial Facility - Emergency Response Plan**
SECTION 09: Appendices
SUBJECT 1604: [High Water Action Plan & Pipeline Spill Response Tactics – Etobicoke Creek](#)

Plan Index and Hyperlinks

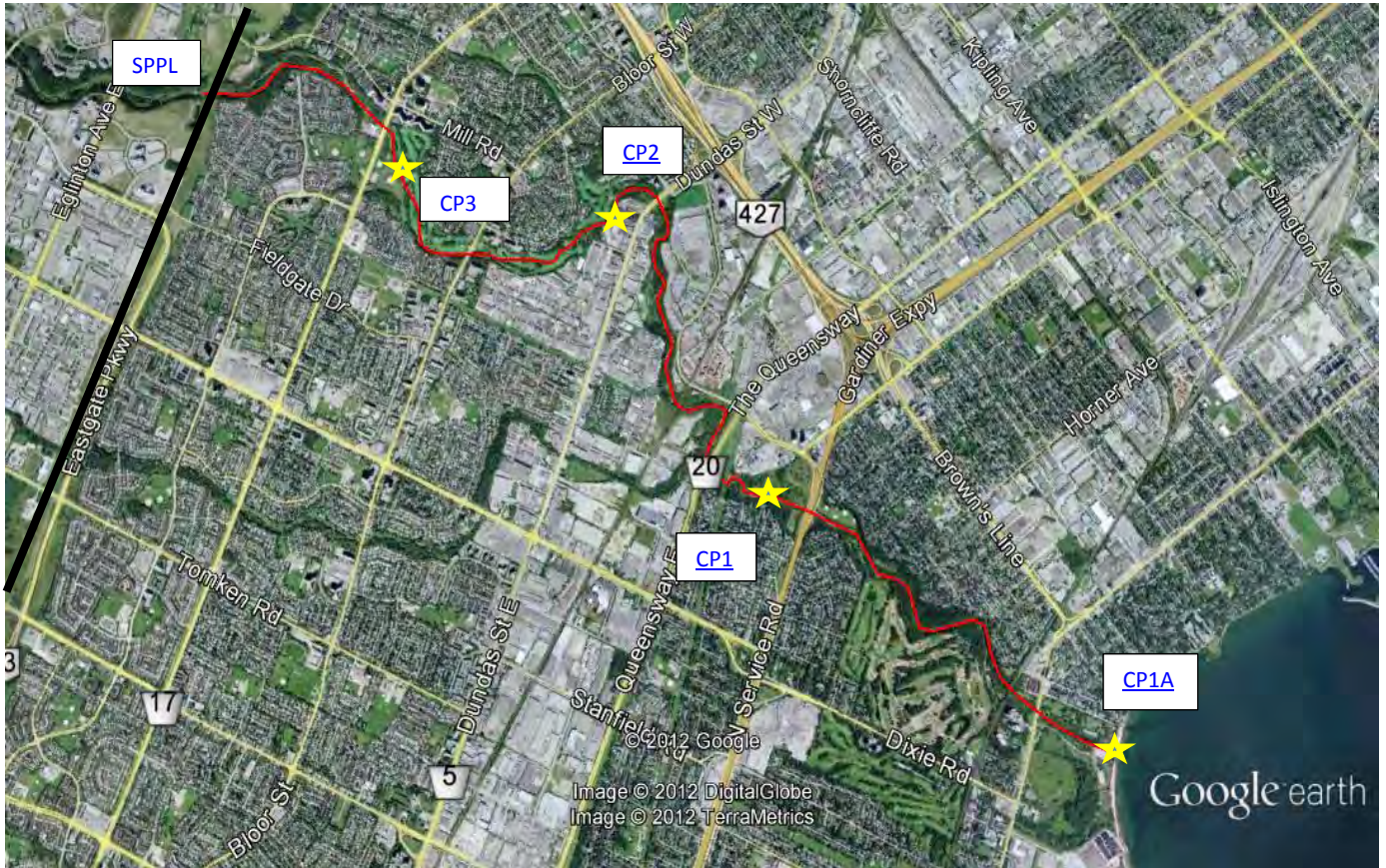
Title
Municipal Information
Overview
High Water Action Plan
Flood Monitoring Action Table
Site Specific Emergency Response Tactics

SECTION 09.1604: Appendices
 High Water Action Plan & Pipeline Spill Response Tactics –
 Etobicoke Creek

SARNIA PRODUCTS PIPELINE High Water Action Plan and Pipeline Spill Response Tactics		Watercourse Name <u>Etobicoke Creek</u>
		Watercourse Crossing # <u>Map 163 - Mile 158.8</u>
		Location <u>Etobicoke</u>
Municipal Information		
Municipality or Township:	City of Toronto (Etobicoke) 311 or 416-392-2489 24/7 Numbers	
Contact:		
Telephone:		
Fire:	911 or Dispatch (416) 338-9000	
Police:	911 or (416) 808-2222	
Ambulance:	911 or (416) 392-2000	
Regional Spill Response Coordinator	Toronto Spill Response	Ministry of the Environment - 24 hr. Spills Action Center
Telephone	311	(416) 325-3000 or 1-800-268- 6060
1. Watercourse Characteristics:		
Volumetric Flow Rate (daily)	Dimensions	Other
Avg.: 1.71 m3/s (2010)	Avg. Width: 15m	Bed Material: Stone/gravel
Max. 94.8m3/s (1968)	Avg. Depth: .5m	
Min. 0.108m3/s (1973)	Max. Width: 20m	
2. Potential Environmental Sensitivities: Through urban area and mature greenbelt and parklands. Bisects Wood Creek, Garnet Wood, Fleetwood, and Marie Curtis Parks Runs along the east side of the Markland Golf Club. Lakeview Golf Club is a potential water rights user.		
Note: CP1A added & CP2 has been relocated from Map 163's depiction		

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High Water Action Plan & Pipeline Spill Response Tactics – Etobicoke Creek



Overview (Figure 16B-1)

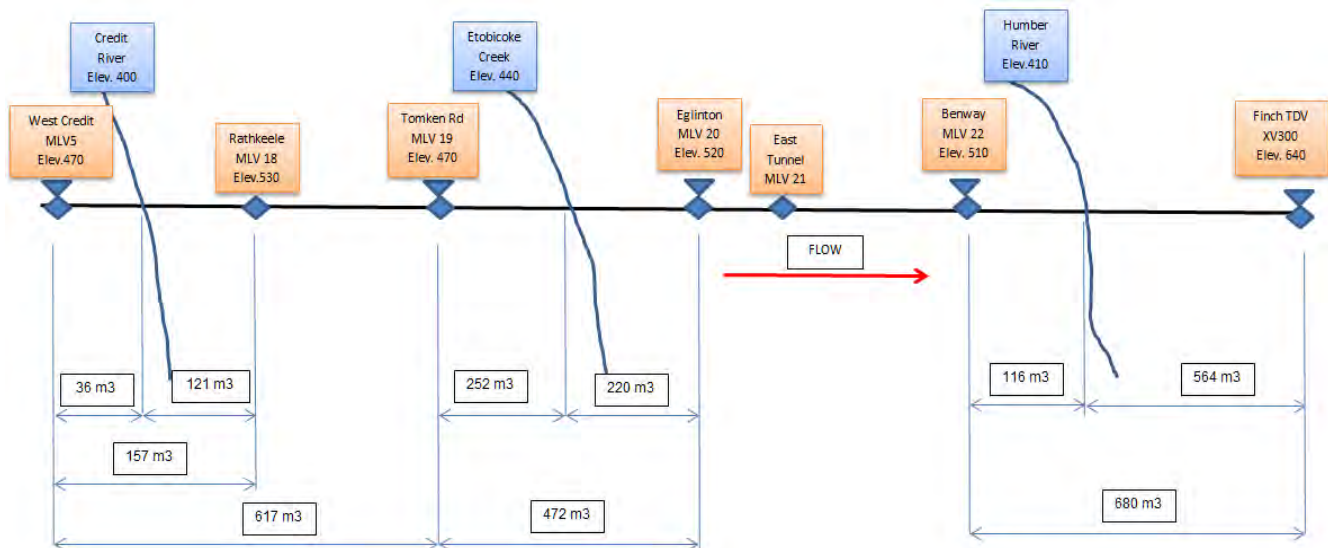


Etobicoke Creek Pipeline Crossing (Figure 16B-2)

SECTION 09.1604: Appendices
 High Water Action Plan & Pipeline Spill Response Tactics –
 Etobicoke Creek

HIGH WATER ACTION PLAN

SCHEMATIC OF PIPELINE CROSSINGS



RESOURCES AT RISK (PEOPLE/PROPERTY/ENVIRONMENT)

River banks, residential impact, wildlife and fish habitat, parklands, marinas and golf courses, hospital, Lake Ontario

SYSTEM CONSIDERATIONS

- a. *Crossing surveys*
 Depth of Cover survey completed in 2012
- b. *Leak detection utilized?*
 System currently protected with Linegard leak detection technology.
- c. *Crossing displacement procedures*
 FV82070019 (Tomken Rd MLV 19) to FV 82280020 (Eglinton Ave. MLV 20)
 Displacement, 630 metres = 472 m3
 Actual Purge from Waterdown to Finch - 4700m3
- d. *Materials, equipment, and labor needed to shut down or displace crossing*
 Displacement pig, nitrogen truck, light plant if at night. No temporary facilities in place, Line will be required to be purged from Waterdown pump station.
- e. *Determine where water, materials, equipment, etc. would be obtained and/or stored when needed in event situations*
 Vac truck will be brought in locally as needed through the General Service Provider. Nitrogen truck will be sourced out Sarnia, Ont. and contractors will be sourced out of Richmond Hill, Ont.
- f. *Outline materials, equipment, labor, etc. needed to inspect crossing after an event*
 Local survey engineer would be sourced out of Toronto, Ont. to survey crossing.
- g. *Other crossings/system considerations*
 Shutting down this section of pipeline would shut down deliveries of refined product to the Imperial Oil, Finch Bulk Terminal which will reduce supply to this site and reduce throughput from the Imperial Oil, Sarnia refinery. This will have a substantial financial impact to the corporation and potential supply issues in the Southern Ontario market. There are multiple pipelines at this crossing, so they will most likely be involved if IOL's pipeline is affected.

SECTION 09.1604: Appendices

High Water Action Plan & Pipeline Spill Response Tactics – Etobicoke Creek

CRITICAL FACILITIES

- h. *Include valve locations, alternate access routes or sites to be used (in the event that flooding restricts access to, or submerges those facilities) All isolation valves are located well above the flood zone.*
FV82070019 (Tomken Rd MLV 19) to FV 82280020 (Eglinton Ave. MLV 20)
- i. *Include provisions to address power or communication failure*
See SPPL Control Center ER Manual CC -07-02 for power and communication failure procedures.
- j. *Include considerations for de-energizing electrical components that are expected to be submerged*
All isolation valves are located well above the flood zone.
- k. *Include considerations for marking locations with buoys, if warranted*
N/A
- l. *Extend regulator vents and relief stacks above level of anticipated flooding, as appropriate*
N/A






ESCALATING RESPONSE ACTION (AS THREAT TO PIPELINE INCREASES)

Local operations are responsible for notifying OCC of flood status in the area, based on Environment Canada data, local knowledge, or flood watch guidance. The primary source of data that local operations will use for initial notification of potential existence of flooding conditions is via email notification to the area manager and the operations supervisor from the local regional conservation authorities Flood Alert Notification process as well as reviewing the data available on the Environment Canada, Ministry of Natural Resources and Conservation authority websites.. Other sources of initial notification for local operations would be local news reports or site specific knowledge of potential for flooding, and any other available data sources (*Consider [http:// www.wateroffice.ec.gc.ca](http://www.wateroffice.ec.gc.ca) or <http://www.trca.on.ca/>*)

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 High Water Action Plan & Pipeline Spill Response Tactics –
 Etobicoke Creek

The gauging colour table below is used by the Ministry of Natural Resources and Ontario Conservation Authority to advise of flooding based on the continually monitoring of the streams, creeks and rivers. This is to be used to cross reference action items to the Flood Monitoring Action Table (FMAT) on page 5.

Gauging Colour Table	Reference
<p>Normal</p>  <p>NORMAL generally indicates low flow to base flow conditions. It should be noted that during Normal flow conditions, the inherent risk to personal safety associated with flowing water still exists.</p>	<p>No Action Required</p>
<p>Water Safety Statement</p>  <p>WATER SAFETY STATEMENT High flows, unsafe banks, melting ice or other factors that could be dangerous for recreational users such as anglers, canoeists, hikers, children, pets, etc. Flooding is not expected.</p>	<p>Scenario 1 on FMAT</p>
<p>Flood Outlook Statement</p>  <p>FLOOD OUTLOOK STATEMENT Early notice of the potential for flooding based on weather forecasts calling for heavy rain, snow melt, high wind or other conditions that could lead to high runoff, cause ice jams, lakeshore flooding or erosion.</p>	<p>Scenario 1 on FMAT</p>
<p>Flood Watch</p>  <p>FLOOD WATCH Flooding is possible in specific watercourses or municipalities. Municipalities, emergency services and individual landowners in flood-prone areas should prepare.</p>	<p>Scenario 2 on FMAT</p>
<p>Flood Warning</p>  <p>FLOOD WARNING Flooding is imminent or already occurring in specific watercourses or municipalities.</p>	<p>Scenario 3 & 4 on FMAT plus monitoring of real time levels from HYDAT on Environment Canada website.</p>

SECTION 09.1604: Appendices

High Water Action Plan & Pipeline Spill Response Tactics – Etobicoke Creek

FLOOD MONITORING ACTION TABLE

Upon initial notification, local operations will use the following table to evaluate and determine appropriate action based on the condition:

*Water levels are based on river data from the Environment Canada website

Scenario	Condition	Criteria/Considerations	Communication
1	Flood potential	<ul style="list-style-type: none"> Potential for Water level rising & increased flow. 	Notify OCC and Operations East Manager
<p>Specific Follow-ups/ Actions</p> <ul style="list-style-type: none"> Alert/Awareness only Monitor longer term forecast & advise management 			
Scenario	Condition	Criteria/Considerations	Communication
2	Minor/Flood Stage	<ul style="list-style-type: none"> Evidence of bank erosion Pipe exposed in crossing and active debris Increase in amount and/or size of debris 	<p>Consider local ESG</p> <p>Notify other pipeline owner/operators within this crossing</p>
<p>Specific Follow-ups/Actions</p> <ul style="list-style-type: none"> Increased surveillance Daily visual inspection/ monitoring <ul style="list-style-type: none"> Communicate with Corporate ER coordinator for ESG potential Continuous Environment Canada & conservation authority website monitoring Aerial Patrol (if warranted and as conditions allow) Evaluate operating parameters relative to the situation based on river forecast, Constant communication/update required to OCC 			

SECTION 09.1604: Appendices
 High Water Action Plan & Pipeline Spill Response Tactics –
 Etobicoke Creek

FLOOD MONITORING ACTION TABLE (cont'd)

Scenario	Condition	Criteria/Considerations	Communication
3	Moderate	<ul style="list-style-type: none"> • Criteria 2 And/or • Increased river flow rate 	Consider formal ESG Consider agency notification (if pressure reduction is taken) Consider other operator notification
Specific Follow-ups/Actions <ul style="list-style-type: none"> • Action 2 (as conditions allow) + <ul style="list-style-type: none"> ○ Communicate with Corporate ER coordinator for ESG potential ○ Determine if pressure reduction should be implemented (review with Integrity advisor) <ul style="list-style-type: none"> ▪ Under normal conditions pipeline typically is operating @1500kpa or under. In shutdown conditions pipeline should have 1000-1500kpa to hold interface tight and monitor for pressure loss. If conditions are such that pressures are greater than listed above, then the OCC should be notified to reduce to 1500kpa (at Waterdown Station) ○ Engage Conservation authorities as applicable ○ Constant communication/update required to OCC ○ Begin preparations for potential displacement (be ready to execute displacement plan) <ul style="list-style-type: none"> ▪ Review <u>JSEP</u> and all pertinent data ▪ Have IOL & Contractor person power available ▪ Ensure N2 contractor available and put on standby if necessary 			
Scenario	Condition	Criteria/Considerations	Communication
4	Major	<ul style="list-style-type: none"> • Criteria 3 And/or • Personnel unable to reach crossing/facilities for inspection 	ESG Potential agency notification Consider other operator notification
Specific Follow-ups/Actions <ul style="list-style-type: none"> • Action 3 (as conditions allow) + <ul style="list-style-type: none"> ○ Pursue other methods of surveillance of areas. (helicopter, boat) ○ Consider shutdown & closure of any manual valves ○ Consider isolation and/or purging of section 			

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SECTION 09.1604: Appendices

High Water Action Plan & Pipeline Spill Response Tactics – Etobicoke Creek

RESPONSE

- m. Identify individuals who will be monitoring locations/outline monitoring plan*
Local operation personnel, supervisor, air patrol spotter
- n. List response organizations to be contacted if needed*
ESG, Imperial Oil NAART, Quantum Murray, ECRC, Credit Valley Conservation Authority

RESTORATION

During flood, high water, high flow conditions, once the river crossing valves are closed, they will not be re-opened by OCC or local personnel until an evaluation of the line is completed. The evaluation will include:

- o. Evaluation of conditions along the pipeline and potential remedial actions
- p. Determination if facilities require:
 - i. Detailed examination for possible damage
 - ii. Consideration for operating at reduced pressure or shutdown until damage is assessed
- q. Ensuring line markers are in place or replaced in a timely manner
- r. Consideration for notify contractors and others involved of the pipeline's presence and the risks posed by reduced cover.
- s. Communication with Technical Standards and Safety Authority (TSSA) as appropriate given then event.

OTHER CONSIDERATIONS / INFORMATION

Work with local conservation authorities to address any impending issues No requirement at this time for regulatory notification, however consider keeping TSSA up to date as an FYI.

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SECTION 09.1604: Appendices
High Water Action Plan & Pipeline Spill Response Tactics –
Etobicoke Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than 1 CP can be worked simultaneously. Note: Contractor response time (QMLP 2hrs. from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

**1st PRIORITY:
PROCEED TO CP1A (NEW)**

NEAREST EQUIP SHOP (QMLP)59 kms **EST. TRAVEL TIME:** 48 minutes

DIRECTIONS TO CONTAINMENT POINT: GPS Co-ordinates N 43° 35.132', W 079° 32.522'

Take QEW East to Cawthra Rd Exit 136. South on Cawthra Rd. to Lakeshore Rd (Hwy 2). East (turn left) on Lakeshore 2.8 kms to Marie Curtis Park on Right. (Figure 16B-3)

ACCESS NOTES/SITE PREPARATION: \

Take road toward lake. Parking lot with boat launch located on edge of Etobicoke Creek. (Figure 16B-4)

WORKSPACE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Parking lot immediately beside creek

BOAT LAUNCH: Yes, but not required

STREAM WIDTH: 15-20m **STREAM DEPTH:** 0.5 m **BED MATERIAL:** Stone/gravel

CONTAINMENT METHOD

Sorbent boom
Vacuum pumps
Last containment point before Lake Ontario

WATER RIGHTS USERS:

See page 1

DIST. UPSTREAM TO PIPELINE: 10.5 kms

UPSTREAM C.P: 3.25 kms

DOWNSTREAM C.P: N/A

SPPL Etobicoke Creek CP1A



Access @ Marie Curtis Park, 1510 Lakeshore Rd. E Mississauga (Figure 16B-3)



Boom Placement CP1A (Figure 16B-4)

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SECTION 09.16B: Appendices
High Water Action Plan & Control Details – Etobicoke Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**2nd PRIORITY:
PROCEED TO CP2**

NEAREST EQUIP SHOP (QMLP) 64 kms. **EST. TRAVEL TIME:** 48 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates N 43° 37.637', W 079° 34.047'**
La Castile Steakhouse, 2179 Dundas St. E., Mississauga (905) 625-1137

QEW East the West Mall/Evans Ave. exit, exit 138, toward Brown's Line. Keep left and take the West Mall ramp. Continue on West Mall to Dundas St. Turn left on Dundas St. to 2179 on right. (Figure 16B-8)

ACCESS NOTES/ SITE PREPARATION:

Staging area in parking lot of La Castile Steakhouse. Access creek at back of parking lot. About a 6 foot slope to creek (Figure 16B-9)

WORKSPACE SIZE: good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** In parking lot of Steakhouse

BOAT LAUNCH: not required

STREAM WIDTH: 5-10m **STREAM DEPTH:** 0.3-0.5 m **BED MATERIAL:** Stone/gravel

CONTAINMENT METHOD

Utilize barricades with fencing
Sorbent materials & booms

WATER RIGHTS USERS:

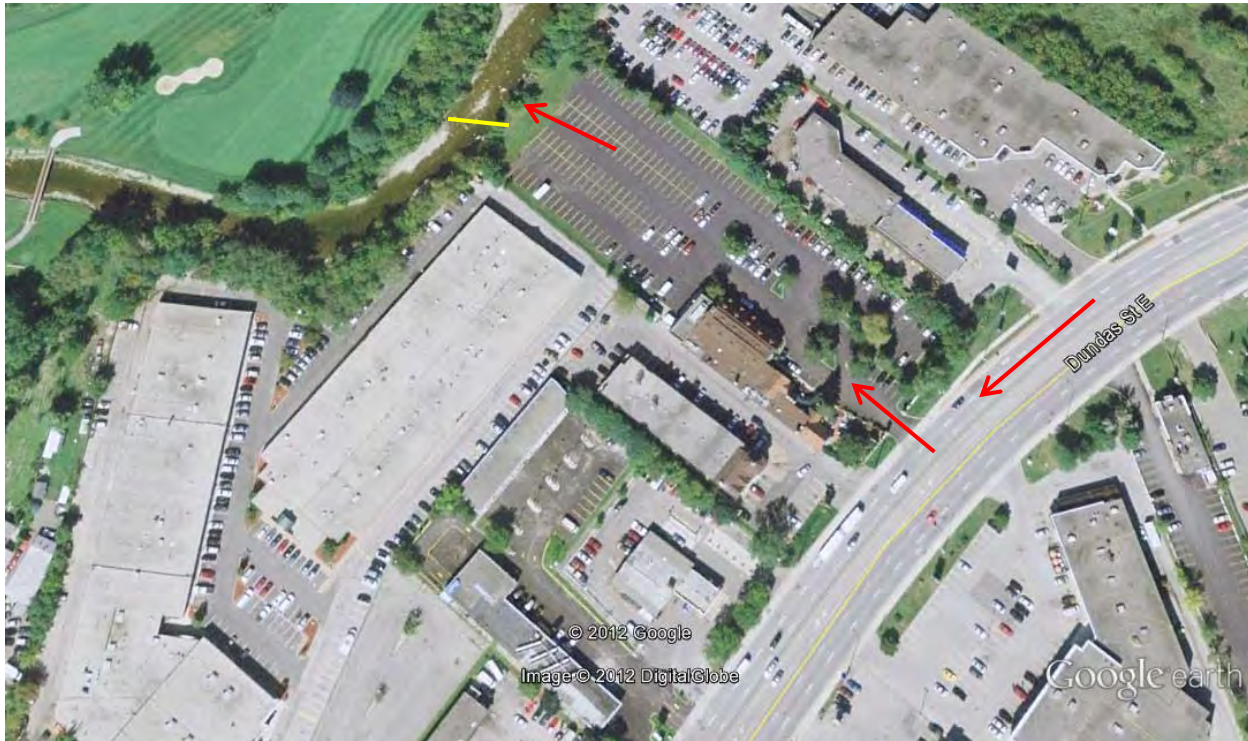
See page 1

DIST. UPSTREAM TO PIPELINE: 4.6 kms

UPSTREAM C.P: 2.0 kms

DOWNSTREAM C.P: 2.7 kms

SPPL Etobicoke Creek CP2



Access @ La Castile Steakhouse, 2179 Dundas St. E., Mississauga (Figure 16B-8)



Boom Placement CP2 (Figure 16B-9)

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SECTION 09.16B: Appendices
High Water Action Plan & Control Details – Etobicoke Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

3rd PRIORITY:
PROCEED TO CP3

NEAREST EQUIP SHOP (QMLP) 64 kms. **EST. TRAVEL TIME:** 48 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates N 43° 38.076', W 079° 35.280'**
Fleetwood Park, 2000 Burnhamthorpe Rd., Etobicoke.

QEW East to Merge onto HWY-427 N via exit 139 toward HWY-401/Airport/Pearson. Take the Burnhamthorpe Road exit.. Turn Left (west) to 2000 Burnhamthorpe Rd., Fleetwood Park on left. (Figure 16B-10)

ACCESS NOTES/ SITE PREPARATION:

Staging area in parking lot of Fleetwood Park. Access creek along the baseball park toward the golf course to the south. Set up containment area upstream of pedestrian bridge (Figure 16B-10 & 11)

WORKSPACE SIZE: good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** In parking lot of Fleetwood Park

BOAT LAUNCH: not required

STREAM WIDTH: 5-10m **STREAM DEPTH:** 0.3-0.5 m **BED MATERIAL:** Stone/gravel

CONTAINMENT METHOD

Utilize barricades with fencing
Sorbent materials & booms

WATER RIGHTS USERS:

See page 1

DIST. UPSTREAM TO PIPELINE: 2.7 kms

UPSTREAM C.P: NA

DOWNSTREAM C.P: 2.0 kms

SPPL Etobicoke Creek CP3



Access @ Fleetwood Park, 2000 Burnhamthorpe Rd., Miss. (Figure 16B-10)



Boom Placement CP3 (Figure 16B-11)

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SECTION 09.16B: Appendices
High Water Action Plan & Control Details – Etobicoke Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**4th PRIORITY:
PROCEED TO CP1**

NEAREST EQUIP SHOP (QMLP) 58 kms. **EST. TRAVEL TIME:** 44 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates N 43° 36.418', W 079° 33.873'**

Take QEW East to the West Mall/Evans Ave. exit, exit 138, toward Brown's Line. Keep left and take the West Mall ramp. Continue on West Mall to Sherway Dr. Turn left on Sherway Dr. Take the 1st left to stay on Sherway Dr. (Portions unpaved) (Gate access required). (Figure 16B-5)

ACCESS NOTES/ SITE PREPARATION:

CP located at end of un-serviced road (now a pedestrian path) Install containment upstream of Middle Road Bridge (Figure 16B-6 & 7)

Alternate access to west side of creek can be made from Sherway Dr. from Dixie (Cannot access with vac truck, however could carry in sorbent boom)

WORKSPACE SIZE: tight **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** At end of un-serviced road about 100 m from bridge.

BOAT LAUNCH: not required

STREAM WIDTH: 10m **STREAM DEPTH:** less than 0.3m **BED MATERIAL:** Stone/gravel

CONTAINMENT METHOD

Sorbent boom
Vacuum pumps

WATER RIGHTS USERS:

See page 1

DIST. UPSTREAM TO PIPELINE: 6.75 kms

UPSTREAM C.P: 2.5 kms

DOWNSTREAM C.P: 3.25 kms

**5th PRIORITY:
PROCEED TO PIPELINE CROSSING**

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates N 43° 38.373', W 079° 36.133'**

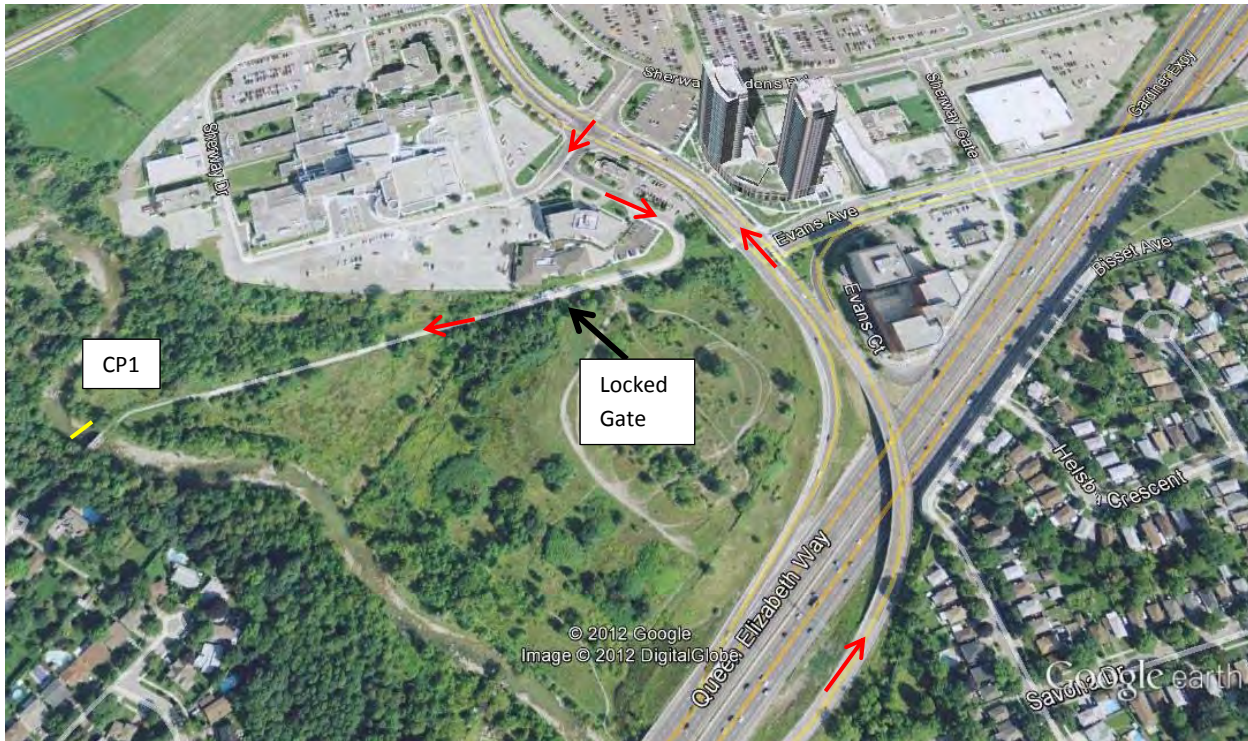
Take Hwy 407 to Hwy 403 East. Exit at Eastgate Dr. (Ext 121). Turn right at Fieldgate Dr. Left at Audubon Blvd. and left into the Hydro 1 corridor through access gates to creek and pipeline crossing.(Figure 16B-12)

ACCESS NOTES/ SITE PREPARATION:

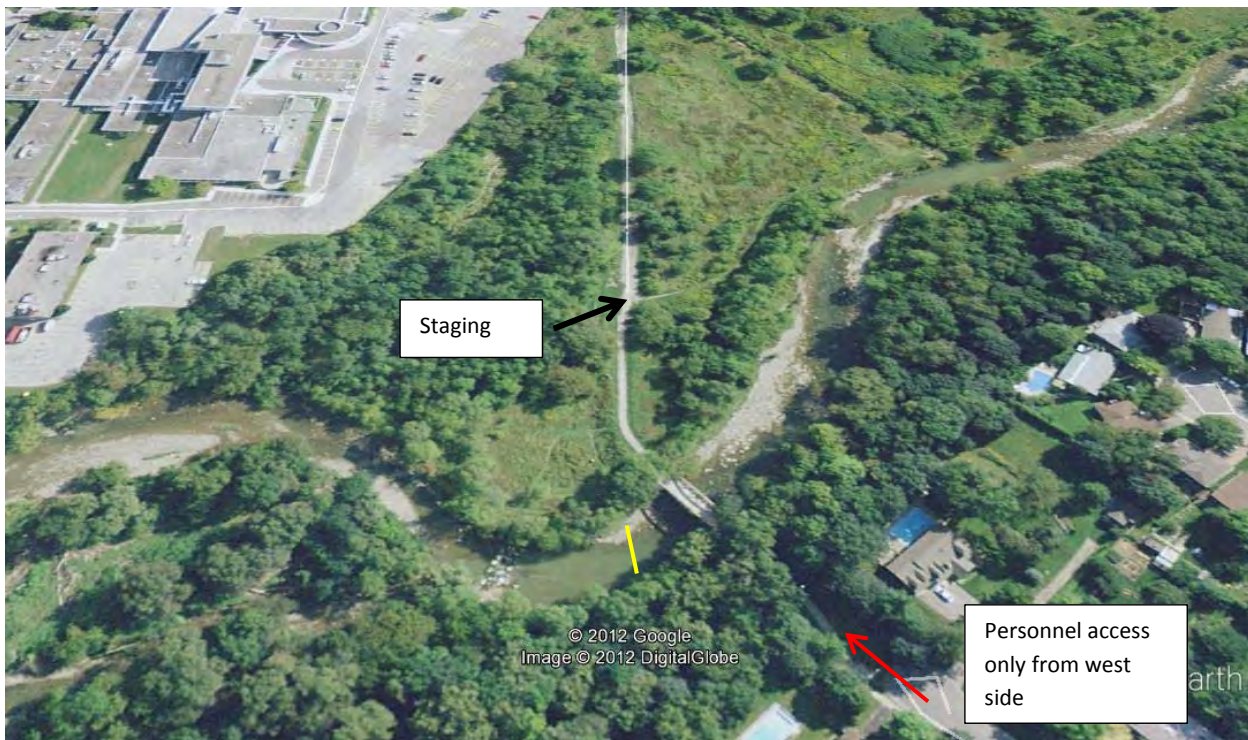
Poor access to pipeline crossing (very steep hill) however a possibility to put containment boom downstream to stop residual oil from moving down creek.

SECTION 09.16B: Appendices
High Water Action Plan & Control Details – Etobicoke Creek

SPPL Etobicoke Creek CP1



Access @ Sherway Dr., Mississauga (Figure 16B-5).



Boom placement CP1 (Figure 16B-6)

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SECTION 09.16B: Appendices
High Water Action Plan & Control Details – Etobicoke Creek



Boom Placement CP1 (Figure 16B-7)

SPPL Etobicoke Creek Pipeline Crossing



Overview of Pipeline Crossing Hydro1 ROW east of Fieldgate Dr. (Figure 16B-12)

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TITLE **Imperial Facility - Emergency Response Plan**
SECTION 09: Appendices
SUBJECT 1605: [High Water Action Plan & Pipeline Spill Response Tactics – Humber River](#)

Plan Index and Hyperlinks

Title
Municipal Information
Overview
High Water Action Plan
Flood Monitoring Action Table
Site Specific Emergency Response Tactics

SECTION 09.1605: Appendices
 High Water Action Plan & Pipeline Spill Response Tactics –
 Humber River

SARNIA PRODUCTS PIPELINE High Water Action Plan and Pipeline Spill Response Tactics		Watercourse Name <u>Humber River / Emery Creek</u>											
		Watercourse Crossing # <u>Map 170 - Mile 166</u>											
		Location <u>Etobicoke</u>											
Municipal Information													
Municipality or Township:	City of Toronto (Etobicoke) 311 or 416-392-2489 24/7 numbers												
Contact:													
Telephone:													
Fire:	911 or Dispatch (416) 338-9000												
Police:	911 or (416) 808-2222												
Ambulance:	911 or (416) 392-2000												
Regional Spill Response Coordinator	Toronto Spill Response	Ministry of the Environment - 24 hr Spills Action Center											
Telephone	311	(416) 325-3000 or 1-800-268-6060											
1. Watercourse Characteristics: <table border="0"> <thead> <tr> <th>Volumetric Flow Rate (daily)</th> <th>Dimensions</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td>Avg. 6.3 m³/s (2010)</td> <td>Avg. Width: 20m</td> <td rowspan="3">Bed Material: rock/rubble/ granular</td> </tr> <tr> <td>Max. 171 m³/s (1986)</td> <td>Avg. Depth: 2m</td> </tr> <tr> <td>Min. 0.663 m³/s (1977)</td> <td></td> </tr> </tbody> </table>				Volumetric Flow Rate (daily)	Dimensions	Other	Avg. 6.3 m ³ /s (2010)	Avg. Width: 20m	Bed Material: rock/rubble/ granular	Max. 171 m ³ /s (1986)	Avg. Depth: 2m	Min. 0.663 m ³ /s (1977)	
Volumetric Flow Rate (daily)	Dimensions	Other											
Avg. 6.3 m ³ /s (2010)	Avg. Width: 20m	Bed Material: rock/rubble/ granular											
Max. 171 m ³ /s (1986)	Avg. Depth: 2m												
Min. 0.663 m ³ /s (1977)													
2. Potential Environmental Sensitivities: Runs through Rountree Mills and Summerlea Parks, Cruickshank, Lions and Raymore Parks, Lampton Woods, Maywood, Smith, Etienne Brule and Kings Mills Parks and the Humber Marshes, Runs through Humber Valley Golf Club, Weston Golf and Country Club. Surrounded by built up urban areas. Could also affect some beaches and marinas. Humber Sewage Treatment Park on west side at mouth. West Park Hospital (Jane and Weston) backs onto the river.													
Note: CP3 has moved and CP1A added not shown on Map 170													

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SECTION 09.1605: Appendices
High Water Action Plan & Pipeline Spill Response Tactics – Humber River



Overview (Figure 16C-1)

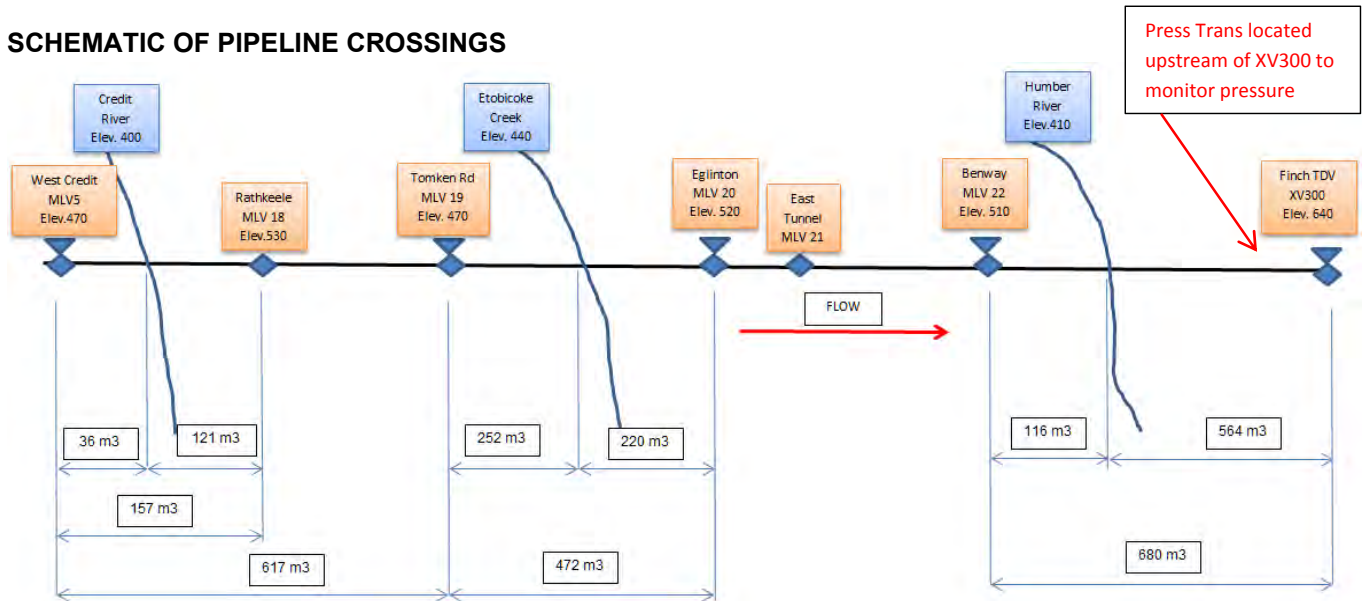


Pipeline Crossing (Figure 16C-2)

SECTION 09.1605: Appendices
 High Water Action Plan & Pipeline Spill Response Tactics –
 Humber River

HIGH WATER ACTION PLAN

SCHEMATIC OF PIPELINE CROSSINGS



RESOURCES AT RISK (PEOPLE/PROPERTY/ENVIRONMENT)

River banks, residential impact, wildlife and fish habitat, parklands, marinas and golf courses, hospital, Lake Ontario.

SYSTEM CONSIDERATIONS

- a. *Crossing surveys*
 Depth of Cover survey completed in 2012
- b. *Leak detection utilized*
 System currently protected with Linegard leak detection technology.
- c. *Crossing displacement procedures*
 FV 82280022 (Benway Dr. MLV 22) to XV 82100300 (Finch Ave TDV XV300)
 Displacement, 9069 metres = 680 m³
 Actual Purge from Waterdown to Finch - 4700m³
- d. *Materials, equipment, and labor needed to shut down or displace crossing*
 Displacement pig, nitrogen truck, light plant if at night. No temporary facilities in place, Line will be required to be purged from Waterdown pump station.
- e. *Determine where water, materials, equipment, etc. would be obtained and/or stored when needed in event situations*
 Vacuum truck will be brought in locally as needed through the General Service Provider. Nitrogen truck will be sourced out Sarnia, Ont. and contractors will be sourced out of Richmond Hill, Ont.
- f. *Outline materials, equipment, labor, etc. needed to inspect crossing after an event*
 Local survey engineer would be sourced out of Toronto, Ont. to survey crossing.
- g. *Other crossings/system considerations*
 Shutting down this section of pipeline would shut down deliveries of refined product to the Imperial Oil, Finch Bulk Terminal which will reduce supply to this site and reduce throughput from the Imperial Oil, Sarnia refinery. This will have a substantial financial impact to the corporation and potential supply issues in the Southern Ontario market. There are multiple pipelines at this crossing, so they will most likely be involved if IOL's pipeline is affected.

CRITICAL FACILITIES

- h. Include valve locations, alternate access routes or sites to be used (in the event that flooding restricts access to, or submerges those facilities) All isolation valves are located well above the flood zone.
FV 82280022 (Benway Dr. MLV 22) to XV 82100300 (Finch Ave TDV XV300)*
- i. Include provisions to address power or communication failure
See SPPL Control Center ER Manual CC -07-02 for power and communication failure procedures.*
- j. Include considerations for de-energizing electrical components that are expected to be submerged
All isolation valves are located well above the flood zone.*
- k. Include considerations for marking locations with buoys, if warranted
N/A*
- l. Extend regulator vents and relief stacks above level of anticipated flooding, as appropriate
N/A*

ESCALATING RESPONSE ACTION (AS THREAT TO PIPELINE INCREASES)

Local operations are responsible for notifying OCC of flood status in the area, based on Environment Canada data, local knowledge, or flood watch guidance. The primary source of data that local operations will use for initial notification of potential existence of flooding conditions is via email notification to the area manager and the operations supervisor from the local regional conservation authorities Flood Alert Notification process as well as reviewing the data available on the Environment Canada, Ministry of Natural Resources and Conservation authority websites. Other sources of initial notification for local operations would be local news reports or site specific knowledge of potential for flooding, and any other available data sources (Consider <http://www.wateroffice.ec.gc.ca> or <http://www.trca.on.ca/>)






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SECTION 09.1605: Appendices High Water Action Plan & Pipeline Spill Response Tactics – Humber River

The gauging colour table below is used by the Ministry of Natural Resources and Ontario Conservation Authority to advise of flooding based on the continually monitoring of the streams, creeks and rivers. This is to be used to cross reference action items to the Flood Monitoring Action Table (FMAT) on page 5.

Gauging Colour Table

Reference

<p>Normal</p>  <p>NORMAL generally indicates low flow to base flow conditions. It should be noted that during Normal flow conditions, the inherent risk to personal safety associated with flowing water still exists.</p>	<p>No Action Required</p>
<p>Water Safety Statement</p>  <p>WATER SAFETY STATEMENT High flows, unsafe banks, melting ice or other factors that could be dangerous for recreational users such as anglers, canoeists, hikers, children, pets, etc. Flooding is not expected.</p>	<p>Scenario 1 on FMAT</p>
<p>Flood Outlook Statement</p>  <p>FLOOD OUTLOOK STATEMENT Early notice of the potential for flooding based on weather forecasts calling for heavy rain, snow melt, high wind or other conditions that could lead to high runoff, cause ice jams, lakeshore flooding or erosion.</p>	<p>Scenario 1 on FMAT</p>
<p>Flood Watch</p>  <p>FLOOD WATCH Flooding is possible in specific watercourses or municipalities. Municipalities, emergency services and individual landowners in flood-prone areas should prepare.</p>	<p>Scenario 2 on FMAT</p>
<p>Flood Warning</p>  <p>FLOOD WARNING Flooding is imminent or already occurring in specific watercourses or municipalities.</p>	<p>Scenario 3 & 4 on FMAT plus monitoring of real time levels from HYDAT on Environment Canada website.</p>

SECTION 09.1605: Appendices
 High Water Action Plan & Pipeline Spill Response Tactics – Humber River

FLOOD MONITORING ACTION TABLE

Upon initial notification, local operations will use the following table to evaluate and determine appropriate action based on the condition:

*Water levels are based on river data from the Environment Canada website

Scenario	Condition	Criteria/Considerations	Communication
1	Flood potential	<ul style="list-style-type: none"> Potential for Water level rising & increased flow. 	Notify OCC and Operations East Manager
<p>Specific Follow-ups/ Actions</p> <ul style="list-style-type: none"> Alert/Awareness only Monitor longer term forecast & advise management 			
Scenario	Condition	Criteria/Considerations	Communication
2	Minor/Flood Stage	<ul style="list-style-type: none"> Evidence of bank erosion Pipe exposed in crossing and active debris Increase in amount and/or size of debris 	Consider local ESG Notify other pipeline owner/operators within this crossing
<p>Specific Follow-ups/Actions</p> <ul style="list-style-type: none"> Increased surveillance Daily visual inspection/ monitoring <ul style="list-style-type: none"> Communicate with Corporate ER coordinator for ESG potential Continuous Environment Canada & conservation authority website monitoring Aerial Patrol (if warranted and as conditions allow) Evaluate operating parameters relative to the situation based on river forecast, Constant communication/update required to OCC 			

SECTION 09.1605: Appendices
 High Water Action Plan & Pipeline Spill Response Tactics –
 Humber River

FLOOD MONITORING ACTION TABLE (cont'd)

Scenario	Condition	Criteria/Considerations	Communication
3	Moderate	<ul style="list-style-type: none"> Criteria 2 And/or Increased river flow rate 	Consider formal ESG Consider agency notification (if pressure reduction is taken) Consider other operator notification
Specific Follow-ups/Actions <ul style="list-style-type: none"> Action 2 (as conditions allow) + <ul style="list-style-type: none"> Communicate with Corporate ER coordinator for ESG potential Determine if pressure reduction should be implemented (review with Integrity advisor) <ul style="list-style-type: none"> Under normal conditions pipeline typically is operating @1500kpa or under. In shutdown conditions pipeline should have 1000-1500kpa to hold interface tight and monitor for pressure loss. If conditions are such that pressures are greater than listed above, then the OCC should be notified to reduce to 1500kpa (at Waterdown Station) Engage Conservation authorities as applicable Constant communication/update required to OCC Begin preparations for potential displacement (be ready to execute displacement plan) <ul style="list-style-type: none"> Review JSEP and all pertinent data Have IOL & Contractor person power available Ensure N2 contractor available and put on standby if necessary 			
Scenario	Condition	Criteria/Considerations	Communication
4	Major	<ul style="list-style-type: none"> Criteria 3 And/or Personnel unable to reach crossing/facilities for inspection 	ESG Potential agency notification Consider other operator notification
Specific Follow-ups/Actions <ul style="list-style-type: none"> Action 3 (as conditions allow) + <ul style="list-style-type: none"> Pursue other methods of surveillance of areas. (helicopter, boat) Consider shutdown & closure of any manual valves Consider isolation and/or purging of section 			

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SECTION 09.1605: Appendices
High Water Action Plan & Pipeline Spill Response Tactics – Humber River

RESPONSE

- m. *Identify individuals who will be monitoring locations/outline monitoring plan*
Local operation personnel, supervisor, air patrol spotter
- n. *List response organizations to be contacted if needed*
ESG, Imperial Oil NAART, Quantum Murray, ECRC, Credit Valley Conservation Authority

RESTORATION

During flood, high water, high flow conditions, once the river crossing valves are closed, they will not be re-opened by OCC or local personnel until an evaluation of the line is completed. The evaluation will include:

- o. Evaluation of conditions along the pipeline and potential remedial actions
- p. Determination if facilities require:
 - i. Detailed examination for possible damage
 - ii. Consideration for operating at reduced pressure or shutdown until damage is assessed
- q. Ensuring line markers are in place or replaced in a timely manner
- r. Consideration for notify contractors and others involved of the pipeline's presence and the risks posed by reduced cover.
- s. Communication with Technical Standards and Safety Authority (TSSA) as appropriate given then event.

OTHER CONSIDERATIONS / INFORMATION

Work with local conservation authorities to address any impending issues No requirement at this time for regulatory notification, however consider keeping TSSA up to date as an FYI.

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SECTION 09.1605: Appendices
High Water Action Plan & Pipeline Spill Response Tactics –
Humber River

SITE SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than one containment point can be worked simultaneously. Note: Contractor response time (QMLP 2hrs. from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

**1st PRIORITY:
PROCEED TO CP1A (NEW)**

NEAREST EQUIP SHOP (QMLP) 65 kms. **EST. TRAVEL TIME:** 47 minutes

DIRECTIONS TO CONTAINMENT POINT: GPS Co-ordinates – N 43° 38.046', W 079° 28.145'
2023 Lakeshore Blvd W. (St. Casimir Czowski Park)

Take QEW East to Toronto. Stay left onto Gardiner Expressway. Take Hwy 2/Lakeshore Blvd. ramp, Turn right into St. Casimir Czowski park. (Figure 16C-3)

ACCESS NOTES/SITE PREPARATION:

Humber River to west of parking lot. Take asphalt pedestrian walkway toward river. Cross over to walkway that follows under the bridge. Set up for containment and recovery under bridge. (Figure16C- 3&4)

WORKSPACE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Parking lot east of Humber

BOAT LAUNCH:

Etobicoke Yacht Club
300 Humber Bay Park Road West
Toronto, ON M8V-3X7
(416) 259-1159

STREAM WIDTH: 100m **STREAM DEPTH:** >2.5 m **BED MATERIAL:** rock/rubble/ granular

CONTAINMENT METHOD

Use boat, 90 cm commercial boom
Sorbent booms
Last containment point before Lake Ontario

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 19.1 kms.

UPSTREAM C.P. 5.2 kms.

DOWNSTREAM C.P: NA

SECTION 09.1605: Appendices
High Water Action Plan & Pipeline Spill Response Tactics – Humber River

SPPL Humber River CP1A



Access @ 2023 Lakeshore Blvd W. (St. Casimir Czowski Park – Figure 16C-3)



Boom placement CP1A (Figure 16C-4)

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SECTION 09.1605:

Appendices
High Water Action Plan & Pipeline Spill Response Tactics –
Humber River

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**2nd PRIORITY:
PROCEED TO CP1**

NEAREST EQUIP SHOP (QMLP) 67 kms EST. TRAVEL TIME: 53 minutes

DIRECTIONS TO CONTAINMENT POINT: GPS Co-ordinates – N 43° 39.655', W 079° 30.211'
Home Smith Park, 4103 Old Dundas St., Toronto

Take QEW East to Hwy 427 North. Merge onto collector lanes and exit at Burnhamthorpe Rd. E.. Continue east to Dundas St. Turn left on Dundas St. East on Dundas for 2.3 kms to Old Dundas St. on right. (Figure 16C-5)

ACCESS NOTES/SITE PREPARATION:

Home Smith Park. Gates to park closed in off season. Area good for access. There are 2 break waters (small waterfalls) Install boom just upstream of 2nd break water (calmest) (Figure 16C-5 & 6)

WORKSPACE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Along roadway plenty of areas,

BOAT LAUNCH: not required

STREAM WIDTH: 20m **STREAM DEPTH:** 0.5m **BED MATERIAL:** rock/rubble/ granular

CONTAINMENT METHOD

Skimmers
Vacuum pumps and absorbents
Booms

WATER RIGHTS USERS:

None identified

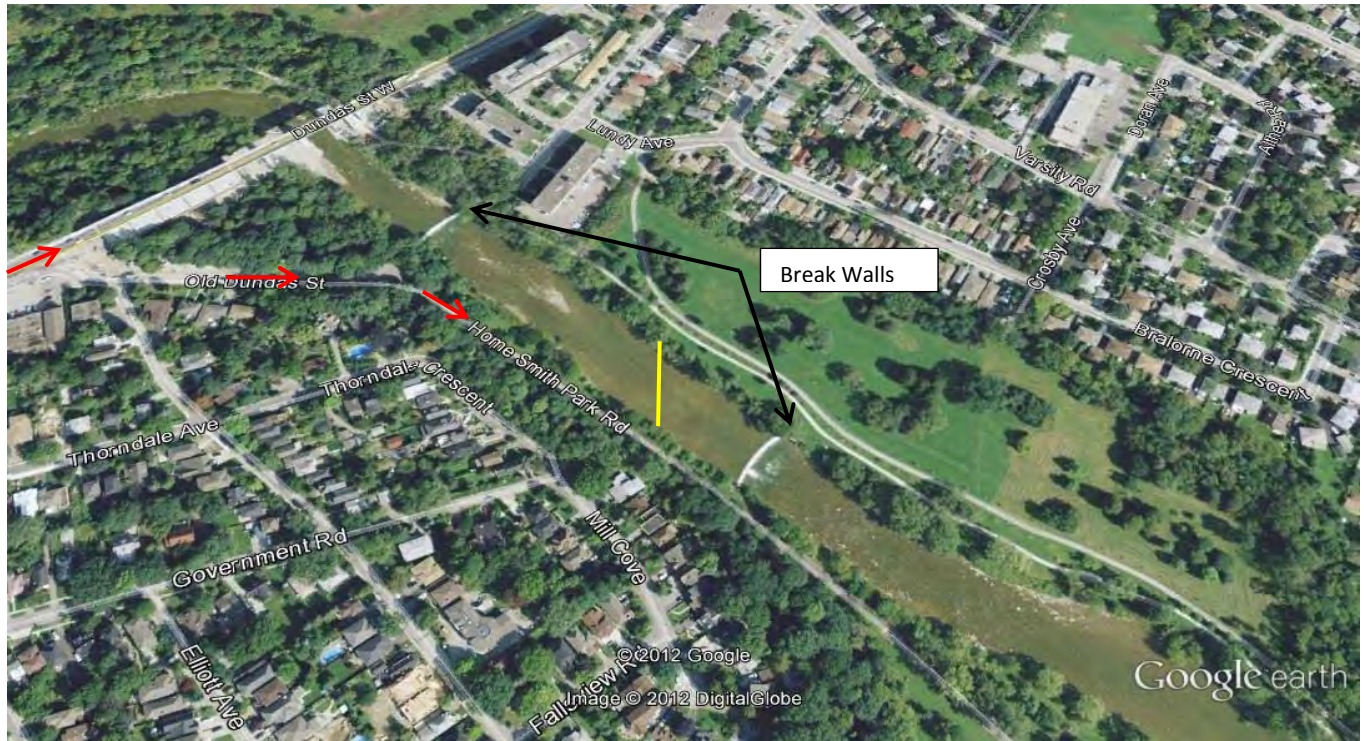
DIST. UPSTREAM TO PIPELINE: 13.9 kms.

UPSTREAM C.P. 4.2 kms

DOWNSTREAM C.P: 5.2 kms.

SECTION 09.1605: Appendices
High Water Action Plan & Pipeline Spill Response Tactics – Humber River

SPPL Humber River CP1



Access @ 4103 Old Dundas St., Home Smith Park, Toronto (Figure 16C-5)



Boom Placement CP1 (Figure 16C-6)

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SECTION 09.1605:

Appendices
High Water Action Plan & Pipeline Spill Response Tactics –
Humber River

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**3rd PRIORITY:
PROCEED TO CP2**

NEAREST EQUIP SHOP (QMLP) 71 kms **EST. TRAVEL TIME:** 55 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates – N 43° 41.118', W 079° 30.484'**
Eglinton Flatts, 140 Emmett Ave., Toronto

Take QEW East to Hwy 427 North. Merge onto collector lanes and exit at Eglinton Ave East. Continue 5.2 kms on Eglinton Ave. East to Emmett Ave. (approx. half way between Scarlett Rd and Jane St. on Eglinton Ave) Turn left onto Emmett Ave. to 2nd curve in road, (Figure 16C-7)

ACCESS NOTES/ SITE PREPARATION:

Access by Emmett Ave. Take Emmett Ave. north. Follow it around to second curve with gate. Go through gate, and across field to river. Staging area near gate by road or parking lot short distance from gates. (Figure 16C-8)

WORKSPACE SIZE: Good **VAC TRUCK ACCESSIBLE:** Yes (could be very soft weather dependant) **POSSIBLE STAGING AREA:** Parking lot just east of gates

BOAT LAUNCH: Could possibly use row boat (season dependant)

STREAM WIDTH: 20-25m **STREAM DEPTH:** 1.0-2.5m **BED MATERIAL:** rock/rubble/ granular

CONTAINMENT METHOD

Skimmers
vacuum pumps and absorbents
booms

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 9.7 kms

UPSTREAM C.P. 2.3 kms

DOWNSTREAM C.P : 4.2 kms

SECTION 09.1605: Appendices
High Water Action Plan & Pipeline Spill Response Tactics – Humber River

SPPL Humber River CP2



Access @ Eglinton Flatts, 140 Emmett Rd., Toronto (Figure 16C-7)



Boom placement CP2 (Figure 16C-8)

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SECTION 09.1605:

Appendices
High Water Action Plan & Pipeline Spill Response Tactics –
Humber River

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**4th PRIORITY:
PROCEED TO CP3**

NEAREST EQUIP SHOP (QMLP) 73 kms. **EST. TRAVEL TIME:58** minutes

DIRECTIONS TO CONTAINMENT POINT: GPS Co-ordinates – N 43° 41.977', W 079° 31.244
Cruikshank Park, 2194 Lawrence Ave W., Toronto

Take QEW east to Hwy 401 E. (use either Hwys 407, 427 or 403) Exit Dixon Rd (Exit 354) Keep right to take the Dixon Road East/Dixon Road East ramp. Merge onto Dixon Rd. Dixon becomes Scarlett Rd. Turn left on Lawrence Ave. Cruikshank Park entrance on left immediately east of Humber River. (Figure 16C-9)

ACCESS NOTES/ SITE PREPARATION:

Staging area in parking lot to Cruikshank Park. Paved pedestrian path accessible to trucks/vacuum trucks through locked gate. CP located on east side of river approx. 0,5 km from parking lot (500 m north of Lawrence Ave. bridge (Figures 16C-9&10).

WORKSPACE SIZE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** In parking lot of Cruikshank Park.

BOAT LAUNCH: Could possibly use row boat (season dependant)

STREAM WIDTH: 20-25 m **STREAM DEPTH:** 1.0-2.5 m **BED MATERIAL:** rock/rubble/ granular

CONTAINMENT METHOD

Skimmers
vacuum pumps and absorbents
booms

WATER RIGHTS USERS:

None identified

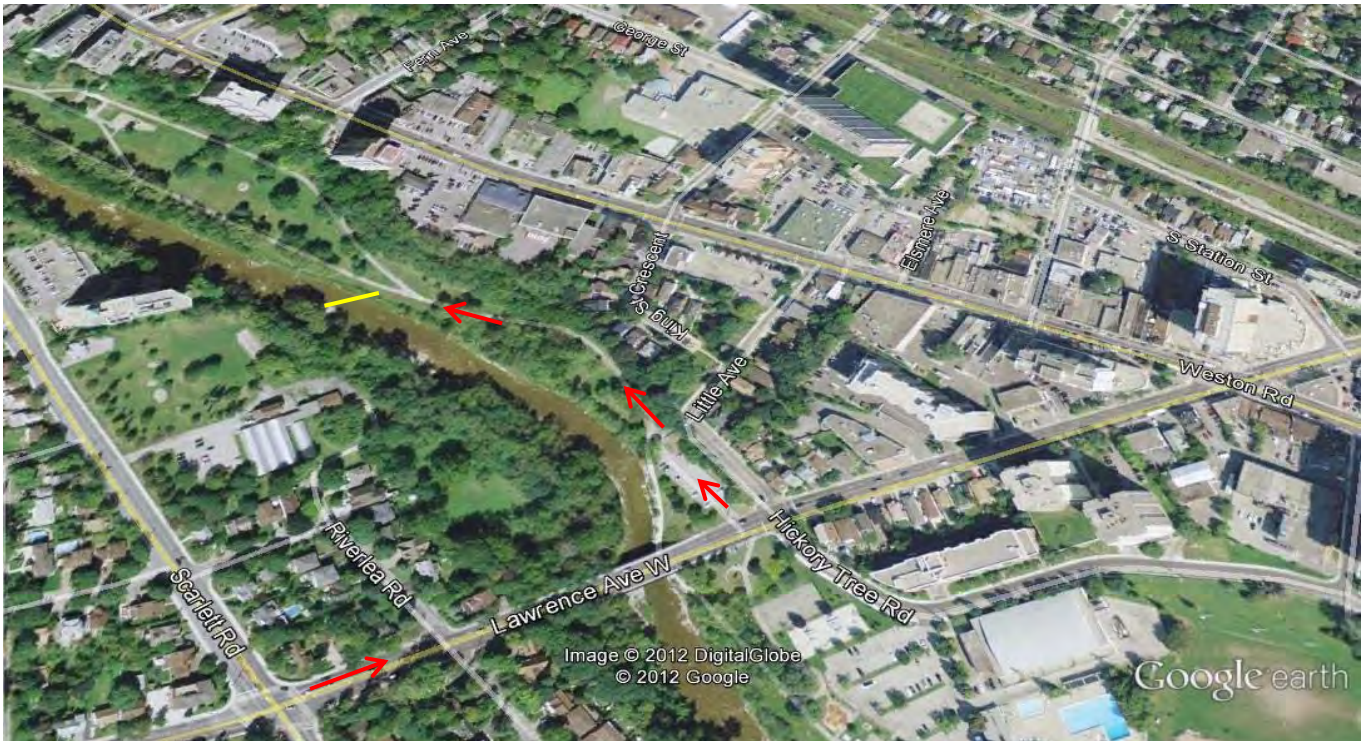
DIST. UPSTREAM TO PIPELINE: 7.4 kms.

UPSTREAM C.P: 3.9 kms.

DOWNSTREAM C.P: 2.3 kms

SECTION 09.1605: Appendices
High Water Action Plan & Pipeline Spill Response Tactics – Humber River

SPPL Humber River CP3



Access @ Cruickshank Park, 2194 Lawrence Ave W., Toronto (Figure 16C-9)



Boom placement CP3 (Figure 16C-10)

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SECTION 09.1605:

Appendices
High Water Action Plan & Pipeline Spill Response Tactics –
Humber River

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**5th PRIORITY:
PROCEED TO CP4**

NEAREST EQUIP SHOP (QMLP) 72 kms. **EST. TRAVEL TIME:** 53 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates – N 43° 43.255', W 079° 32.468'**
Louise Russo Park, 42 Flindon Road, Toronto (Weston)

Take QEW east to Hwy 401 (use either Hwys 407, 427 or 403) Exit Weston Rd (Exit 357) North on Weston to Flindon Road (on left, immediately north of Lilac St) (Figure 16C-11)

ACCESS NOTES/ SITE PREPARATION:

Staging area at end of Flindon Road, Jersey barriers require moving to allow truck access to river. Access is steep but manageable. Place boom upstream of storm sewers that are on both sides near this location. (Figure 16C-12)

WORKSPACE SIZE: good **VAC TRUCK ACCESSIBLE:** Yes (see note above) **POSSIBLE STAGING AREA:** At end of Flindon Road

BOAT LAUNCH: Could possibly use row boat (season dependant)

STREAM WIDTH: 20m **STREAM DEPTH:** 1.0- 2.5m **BED MATERIAL:** rock/rubble/ granular

CONTAINMENT METHOD

Skimmers
vacuum pumps and absorbents
booms

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 3.5 kms.

UPSTREAM C.P: NA

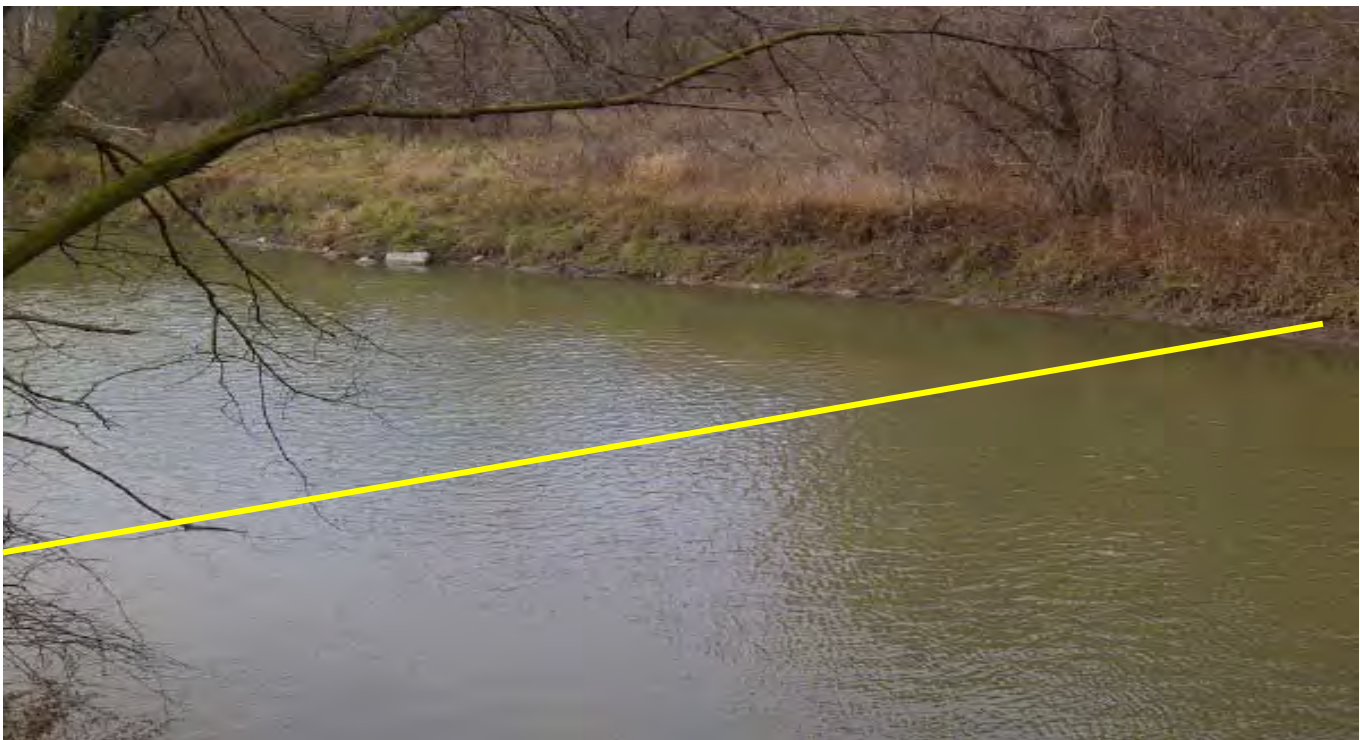
DOWNSTREAM C.P: 3.9 kms.

SECTION 09.1605: Appendices
High Water Action Plan & Pipeline Spill Response Tactics – Humber River

SPPL Humber River CP4



Access @ Louise Russo Park, 42 Flindon Road, Toronto (Figure 16C-11)



Boom placement CP4 (Figure 16C-12)

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SECTION 09.1605:

Appendices
High Water Action Plan & Pipeline Spill Response Tactics –
Humber River

SPPL Humber River Pipeline Crossing



Pipeline River Crossing @ Summerlea Sports Park, 1490 Albion Rd, Etobicoke. (Figure 16C-13)

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TITLE **Title Imperial Facility - Emergency Response Plan**
SECTION 09: Appendices
SUBJECT 1606: Maps Pipeline Spill Response Tactics – Bronte Creek

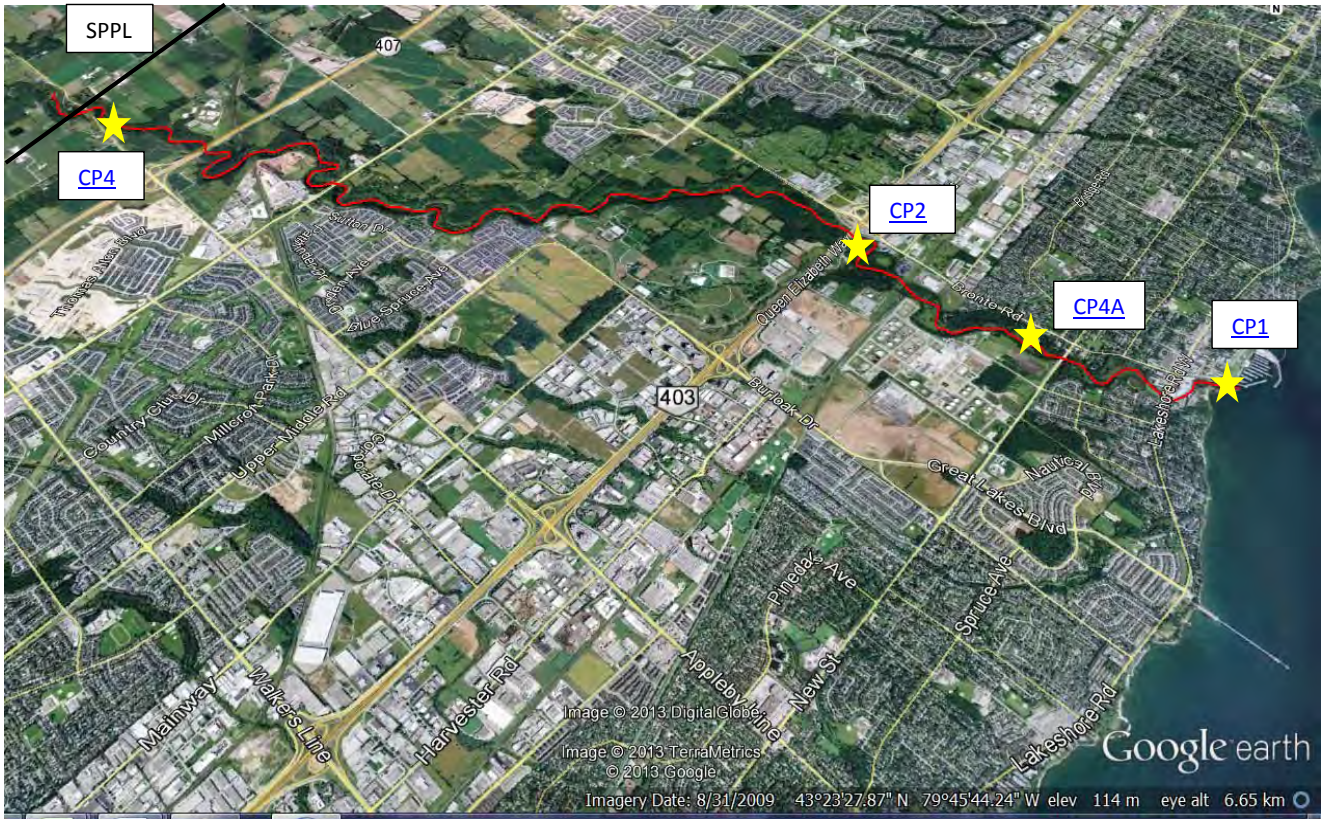
Plan Index and Hyperlinks

Title
<u>Municipal Information</u>
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<u>Site Specific Emergency Response Tactics</u>

SECTION 09.1606: Appendices
 Maps & Containment Points - Bronte Creek

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: <u>Bronte Creek</u> (<u>Twelve Mile Creek</u>)													
	Watercourse Crossing # <u>Map 142-Mile 140</u>													
	Location <u>Oakville</u>													
Municipal Information														
Municipality or Township:	Town of Oakville 905-845-6606 After Hours emergency number	City of Burlington 311 905-825-6000 24/7 Number												
Contact:	Director of Roads (Oakville)	Director of Engineering												
Telephone:	(905) 845-6601 ext.3315	(905) 335-7600 ext.7795												
Fire:	911 or (905) 637-8253	911 or (905) 637-8253												
Police:	911 or (905) 878-5511 Halton Regional Police cover: Burlington, Oakville, Milton, George Town & Acton	911 or (905) 878-5511 Halton Regional Police cover: Burlington, Oakville, Milton, George Town & Acton												
Ambulance:	911	911												
Regional Spill Response Coordinator	Spill Response Team Halton Region	Spill Response Team Halton Region												
Telephone	(905) 825-6000 24 Hour Number	(905) 825-6000 24 Hour Number												
<p>1. Watercourse characteristics at pipeline crossing:</p> <table border="1"> <thead> <tr> <th>Volumetric Flow Rate (daily)</th> <th>Dimensions</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td>Mean: 2.77 m3/s</td> <td>Avg. Width: 20m</td> <td>Bed Material: rock/boulder</td> </tr> <tr> <td>Max: 29.7 m3/s (1974)</td> <td>Avg. Depth: .5m</td> <td></td> </tr> <tr> <td>Min: 0.286 m3/s (1959)</td> <td>Max. Width: 35m</td> <td></td> </tr> </tbody> </table>			Volumetric Flow Rate (daily)	Dimensions	Other	Mean: 2.77 m3/s	Avg. Width: 20m	Bed Material: rock/boulder	Max: 29.7 m3/s (1974)	Avg. Depth: .5m		Min: 0.286 m3/s (1959)	Max. Width: 35m	
Volumetric Flow Rate (daily)	Dimensions	Other												
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Max: 29.7 m3/s (1974)	Avg. Depth: .5m													
Min: 0.286 m3/s (1959)	Max. Width: 35m													
<p>2. Potential environmental sensitivities:</p> <p>Flows through Bronte Creek Provincial Park, Bronte Beach and Bronte Harbour. Must deflect or stop before harbour is reached. Potential water users include Richview Golf Course, Sawwhet Golf Course, Deerfield Golf Course, PetroCanada Park, Westbrook Park, Riverview Park, and Bronte Beach Park.</p> <p>Note CP3 is no longer accessible</p>														

SECTION 09.1606: Appendices
Maps & Containment Points - Bronte Creek



Overview



Pipeline Crossing at Bronte Creek

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SECTION 09.1606: Appendices
Maps & Containment Points - Bronte Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than one containment point can be worked simultaneously: Note: Contractor response time (QMLP 2hrs.from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

**1st PRIORITY:
PROCEED TO CP1**

NEAREST EQUIP SHOP (QMLP)34 kms **EST. TRAVEL TIME:** 30 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates – N 43° 23.490', W 079° 42.869'**
2579 Lakeshore Rd West, Oakville, Ont.

Take QEW East to Bronte Rd. South. Right at Lakeshore to access gate on north side of road immediately west of Bronte Creek.

ACCESS NOTES/SITE PREPARATION:

West side of Bronte Creek access on north to control point.
Use parking area immediately to south off West River St. for additional parking and staging area.
Any oil past this location will be in marina.

WORKSPACE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** In grass area beside CP or to south of Lakeshore in parking area (Berta Point)

BOAT LAUNCH:

Small boat can be launched at site or Dockside Marine
2508 Lakeshore W, Oakville, ON L6H
(905) 827-8879

STREAM WIDTH: 20-25m **STREAM DEPTH:** 1-2m **BED MATERIAL:** Rocky/ boulders

CONTAINMENT METHOD

heavy booms
skimmers
boats
Last containment point before Lake Ontario

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 15.7 kms

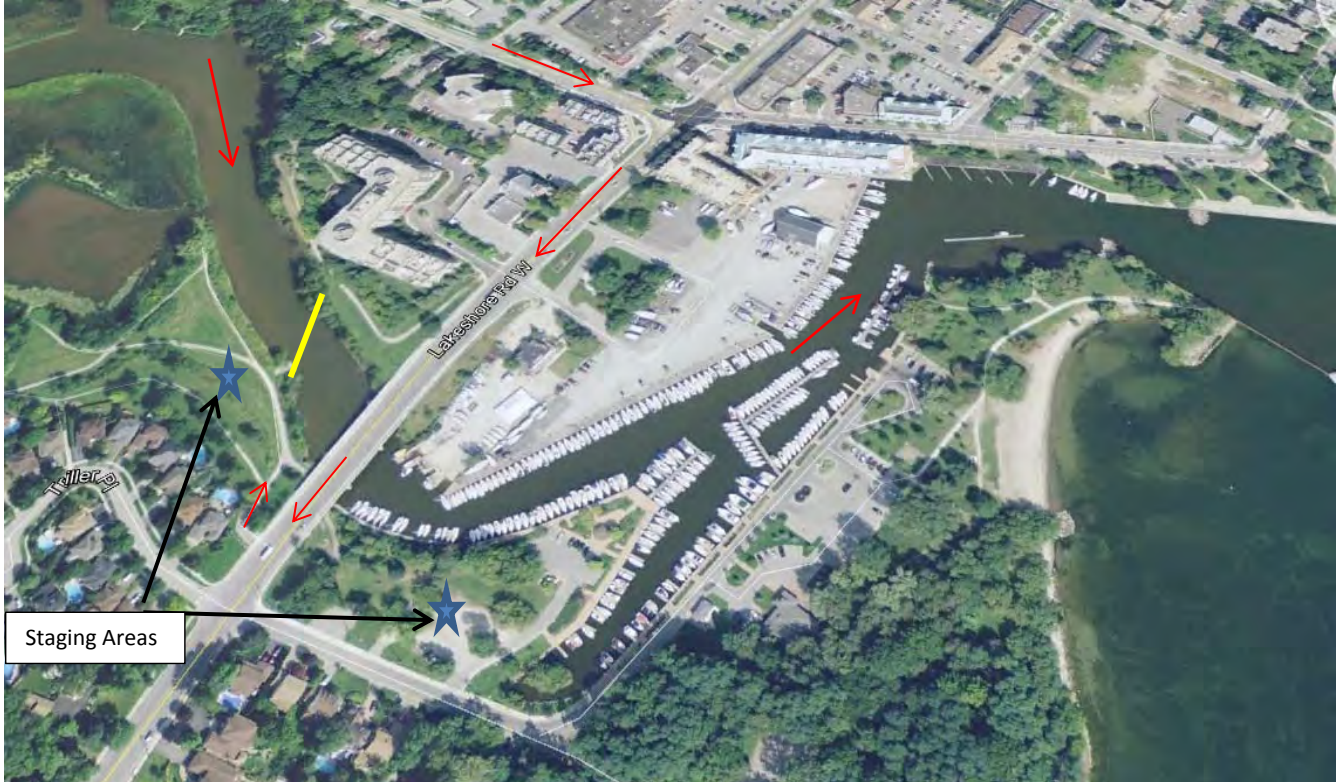
UPSTREAM C.P. 3.7 kms

DOWNSTREAM C.P: NA

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SECTION 09.1606: Appendices
Maps & Containment Points - Bronte Creek

SPPL Bronte Creek CP1



Access to northwest side through locked gate. Staging areas on both sides of Lakeshore Rd.



Boom Deployment and Containment CP1

SECTION 09.1606: Appendices
Maps & Containment Points - Bronte Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**2nd PRIORITY:
PROCEED TO CP2**

NEAREST EQUIP SHOP (QMLP) 31 kms **EST. TRAVEL TIME:** 23 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates – N 43° 24.546', W 079° 44.443'**
898 Bronte Rd., Oakville

Take QEW East to Bronte Rd S.Exit 111. Parking lot with access road to creek under QEW bridge right across from exit ramp stop light. (Between QEW and Quality Inn) Proceed down hill (Gate on road)

ACCESS NOTES/ SITE PREPARATION:

CP located on east side by bridge Truck access to river is very good. Steep drive but well maintained. Set up containment under bridge.

WORKSPACE SIZE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Good access right to site.

BOAT LAUNCH: not required

STREAM WIDTH: 10-15m **STREAM DEPTH:** 0.5-1.0 m **BED MATERIAL:** Rocky/ boulders

CONTAINMENT METHOD

Sorbent materials & booms
skimmers

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 12.0 kms

UPSTREAM C.P: 11.4 kms

DOWNSTREAM C.P: 3.7 kms

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SECTION 09.1606: Appendices
Maps & Containment Points - Bronte Creek

SPPL Bronte Creek CP2



Access directly across from Bronte Rd ramp.



Boom deployment and containment CP2

SECTION 09.1606: Appendices
Maps & Containment Points - Bronte Creek

SPPL Bronte Creek CP2 (cont'd)



Access & staging area CP2

SECTION 09.1606: Appendices
Maps & Containment Points - Bronte Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**3rd PRIORITY:
PROCEED TO CP4**

NEAREST EQUIP SHOP (QMLP) 30 kms. **EST. TRAVEL TIME:** 25 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates – N 43° 25.518', W 079° 49.965'**
4197 Appleby Line, Burlington, Ont.

Take QEW East to ETR 407 to Appleby Line exit 9. North on Appleby line to Bronte Creek crossing. CP on east side of Appleby.

ACCESS NOTES/ SITE PREPARATION:

Set up on east side of bridge. Access very steep from road to creek (both sides) however east side the flow is the calmest. Staging area very limited (possibly to the side at 4192 Appleby on west side) **Traffic control essential in this area as traffic is very heavy with very little visibility. Appleby Line will need to be reduced to one lane through this area.**

WORKSPACE SIZE: Access is tight **VAC TRUCK ACCESSIBLE:** on side of road only **POSSIBLE STAGING AREA:** at side of road at 4192 Appleby or on Side Rd#2.

BOAT LAUNCH: not required

STREAM WIDTH: 7-10m **STREAM DEPTH:** 0.3-1.0 m **BED MATERIAL:** Rocky /boulders

CONTAINMENT METHOD

Sorbent materials & booms
skimmers

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 0.7 kms

UPSTREAM C.P: NA

DOWNSTREAM C.P: 11.4 kms

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SECTION 09.1606: Appendices
Maps & Containment Points - Bronte Creek

SPPL Bronte Creek CP4



Access down side of Appleby Line.. Heavy traffic area



Boom Deployment & Containment CP4

SECTION 09.1606: Appendices
Maps & Containment Points - Bronte Creek

SPPL Bronte Creek CP4 (cont'd)



Overview of access to CP4 (Steep embankment– Traffic control required)

SECTION 09.1606: Appendices
Maps & Containment Points - Bronte Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

4rd PRIORITY:
PROCEED TO CP4A

NEAREST EQUIP SHOP (QMLP) 32 kms. **EST. TRAVEL TIME:** 25 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates – N 43° 23.835', W 079° 43.484'**
384 Bronte Rd., Oakville

Take QEW East to Bronte Rd. S. Exit 111. South on Bronte Rd to approx. 384 Bronte Rd. Access to Petro Canada park on right between 2 homes. CP is approximately 100 m to north of parking lot.

ACCESS NOTES/ SITE PREPARATION:

Staging area in parking lot of Petro Canada park or through barrier to open field north of parking lot. Access road to park is tight but manageable for smaller equipment. Creek splits in several places in this area, Set up 100m to north of parking lot where creek is not split.

WORKSPACE SIZE: Access is tight **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** In parking lot or open field to north

BOAT LAUNCH: not required

STREAM WIDTH: 10m **STREAM DEPTH:** 0.3-1.0 m **BED MATERIAL:** Rocky /boulders

CONTAINMENT METHOD

Booms
Skimmers

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 14.3 kms

UPSTREAM C.P: 2.3

DOWNSTREAM C.P: 1.4 kms

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SECTION 09.1606: Appendices
Maps & Containment Points - Bronte Creek

SPPL Bronte Creek CP4A



Access off Bronte Rd to Petro Canada Park




Boom Deployment & Containment CP4A

SECTION 09.1606: Appendices
Maps & Containment Points - Bronte Creek

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TITLE **Title Imperial Facility - Emergency Response Plan**
SECTION 0909: Appendices Appendices
SUBJECT 160716:  Maps Pipeline Spill Response Tactics – 16 Mile Creek

Plan Index and Hyperlinks

Title
Municipal Information
Overview
Site Specific Emergency Response Tactics

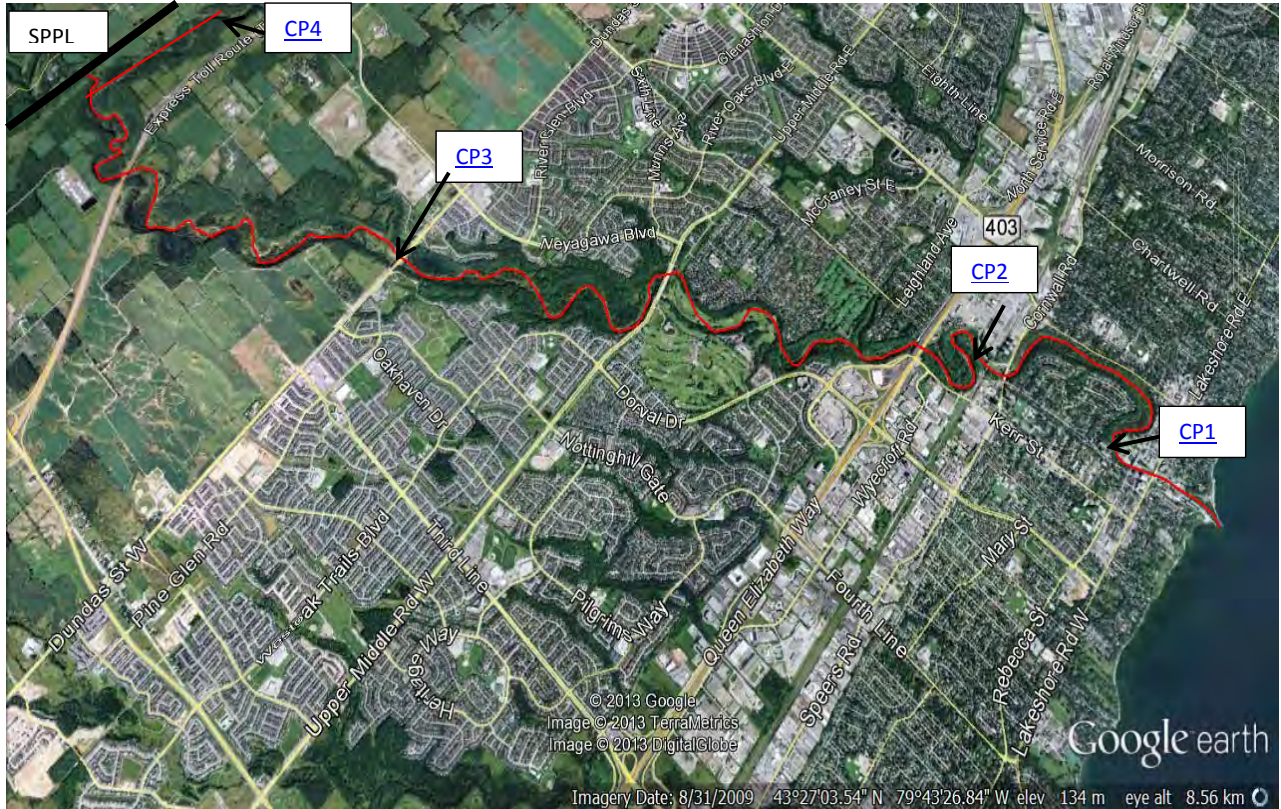
SECTION 09.1607: Appendices
 Pipeline Spill Response Tactics – 16 Mile Creek

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name	<u>Sixteen Mile Creek and East Sixteen Mile Creek</u>
	Watercourse Crossing #	<u>Map 147 - Mile 144</u>
	Location	<u>Oakville / Milton</u>

Municipal Information		
Municipality or Township:	Town of Oakville 905-845-6606 After Hours emergency number	Town of Milton After hours 905-878-7141
Contact:	Director of Roads (Oakville)	Engineering Services
Telephone:	(905) 845-6601 ext.3315	(905) 878-7252 ext. 2500
Fire:	911 or (905) 637-8253	911 or (905) 878-9251
Police:	911 or (905) 878-5511 Halton Regional Police cover: Burlington, Oakville, Milton, George Town & Acton	(905) 878-5511 Halton Regional Police cover: Burlington, Oakville, Milton, George Town & Acton
Ambulance:	911	911
Regional Spill Response Coordinator:	Spill Response Team Halton Region	Spill Response Team
Telephone:	(905) 825-6000 24 Hour Number	(905) 825-6000 24 Hour Number

1. Watercourse characteristics at pipeline crossing:			
Volumetric Flow Rate (daily)	Dimensions	Other	
Mean: 1.23 m3/s	Avg. Width: 25m	Bed Material: rock/boulder	
Max: 20.5 m3/s (1974)	Avg. Depth: .7m		
Min: 0.014 m3/s (1959)	Max. Width: 35m		
2. Potential environmental sensitivities:			
Flows through Lions Valley Park, Glen Abbey Golf Club, residential areas.			
Must deflect or stop north of Navy Flats to protect the marina.			

SECTION 09.1607: Appendices
Maps & Containment Points 16 Mile Creek



Overview



SPPL Crossing at 16 Mile Creek

SECTION 09.1607: Appendices
Pipeline Spill Response Tactics – 16 Mile Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than one containment point can be worked simultaneously: Note: Contractor response time (QMLP 2hrs.from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

**1st PRIORITY:
PROCEED TO CP1**

NEAREST EQUIP SHOP (QMLP)38 kms **EST. TRAVEL TIME:** 31 minutes

DIRECTIONS TO CONTAINMENT POINT: GPS Co-ordinates – N 43° 26.739' W 079° 40.395'
160 Water St., Oakville, Ont.

Take QEW East to Dorval Dr. Exit 116. South on Dorval to Rebecca. Left on Rebecca which turns into Randall St., Left off Randall to Navy St. Left on Water St to Burloak Canoe Club

ACCESS NOTES/SITE PREPARATION:

Access is behind Canoe Club house on dock. There are several boats upstream of this location but stream split as well. Install deflection boom up stream of area
Any oil past this location will be in marina.

Staging at Burloak Canoe Club or next door at Oakville Power Boat Club
Burloak Canoe Club
905-338-8287

WORKSPACE: Fair **VAC TRUCK ACCESSIBLE:** Limited **POSSIBLE STAGING AREA:** in parking lot of canoe club or power boat club

BOAT LAUNCH:

Small boat can be launched at site or Oakville Power Boat Club
15Water St., Oakville, ON
(905) 844-3607

STREAM WIDTH: 10-15m **STREAM DEPTH:** 1-2m **BED MATERIAL:** Rocky/ boulders

CONTAINMENT METHOD

booms & deflection booms
skimmers
boats
Last containment point before Lake Ontario

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 16.4 kms

UPSTREAM C.P. 2.2 kms

DOWNSTREAM C.P: NA

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SPPL 16 Mile Creek CP1



Access through Burloak Canoe Club. Additional Staging next door at Oakville Power Boat Club



Boom & Deployment CP1

SECTION 09.1607: Appendices
Pipeline Spill Response Tactics – 16 Mile Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**2nd PRIORITY:
PROCEED TO CP3**

NEAREST EQUIP SHOP (QMLP) 33 kms **EST. TRAVEL TIME:** 38 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates – N 43° 27.593', W 079° 45.105'**
Lyons Valley Park Rd., Oakville

Take QEW East to 407 ETR to Hwy 25 (Bronte Rd) Exit 111 Dr.North on Bronte Rd to Dundas St (Hwy 5)
Right on Dundas to Lyon Park Rd on right. Follow road to end at parking lot under Dundas St overpass.

Lyon Park Rd is very steep.

ACCESS NOTES/ SITE PREPARATION:

CP located on west side of parking lot.. Truck access to creek is very good. Large parking lot for staging. Set up containment downstream of pedestrian bridge.

WORKSPACE SIZE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Good access right to site.

BOAT LAUNCH: not required

STREAM WIDTH: 10-12m **STREAM DEPTH:** 0.5-1.0 m **BED MATERIAL:** Rocky/ boulders

CONTAINMENT METHOD

Sorbent materials & booms
skimmers

WATER RIGHTS USERS:

Pump house located just north of parking lot, used to water grass in cemetery

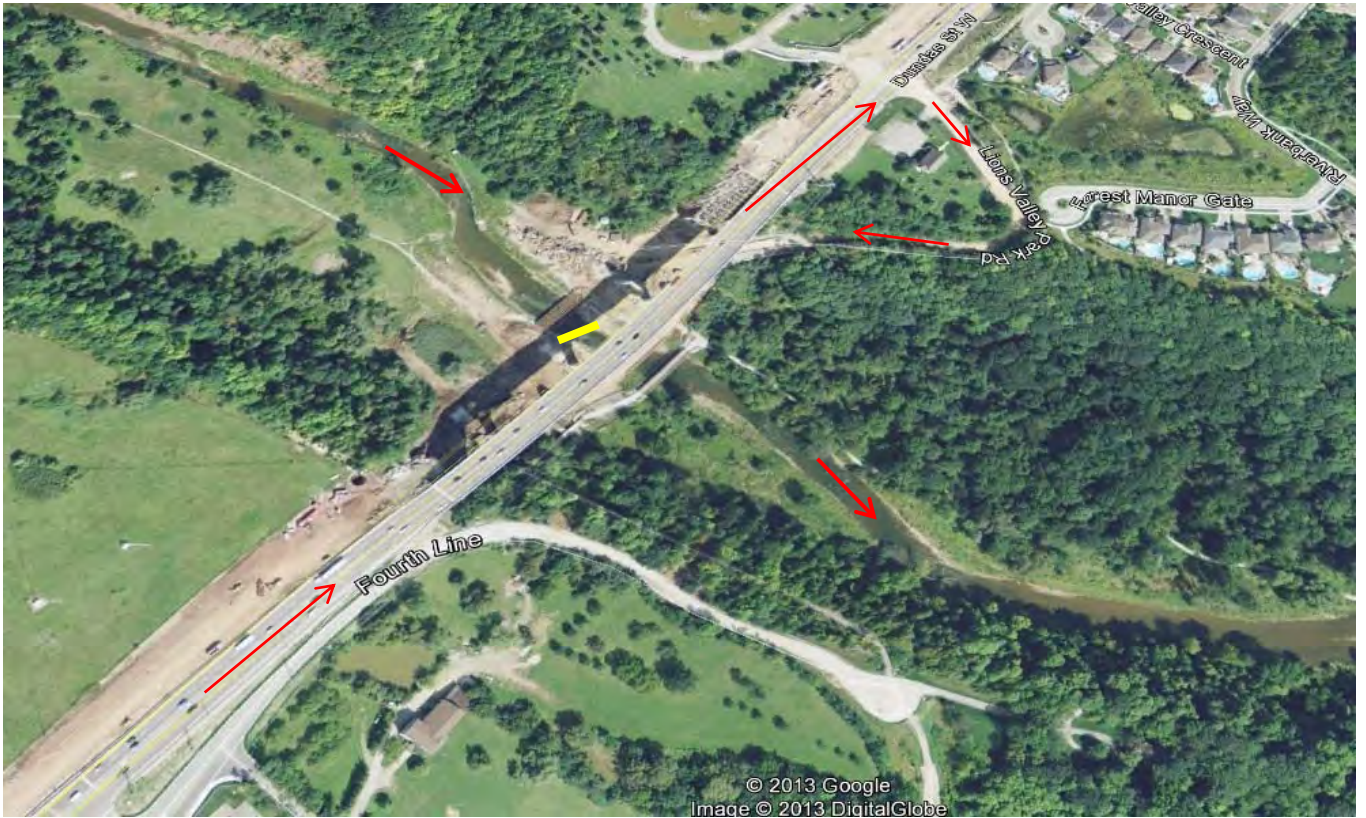
DIST. UPSTREAM TO PIPELINE: 5.9 kms

UPSTREAM C.P: NA kms

DOWNSTREAM C.P: 8.2 kms

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SPPL 16 Mile Creek CP3



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Image © 2013 DigitalGlobe
Access from Dundas St E. to Lyon Park Rd.



Boom Deployment & Containment CP3

SECTION 09.1607: Appendices
Pipeline Spill Response Tactics – 16 Mile Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**3rd PRIORITY:
PROCEED TO CP2**

NEAREST EQUIP SHOP (QMLP) 37 kms **EST. TRAVEL TIME:** 29 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates – N 43° 27.029', W 079° 41.143'**
15 Cross Ave., Oakville

Take QEW East to Dorval Dr.S.Exit 116. South on Dorval Dr. to Speers Rd. Left on Speers to Cross Ave. Left on Cross. Staging area to the left of intersection between Speers and railway overpass

Alternate directions is QEW to Trafalgar Rd Exit 118, South on Trafalgar to Cumberland. Turn right on Cumberland to Cross Ave on right.

ACCESS NOTES/ SITE PREPARATION:

CP located on east side by bridge. Truck access to creek is very good. Well maintained grass area for staging. Set up containment between bridge and railway overpass (season dependant).

Note: Via Rail and Go Station nearby

WORKSPACE SIZE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Good access right to site.

BOAT LAUNCH: not required

STREAM WIDTH: 10-15m **STREAM DEPTH:** 0.5-1.0 m **BED MATERIAL:** Rocky/ boulders

CONTAINMENT METHOD

Sorbent materials & booms
skimmers

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 14.2 kms

UPSTREAM C.P: 8.2 kms

DOWNSTREAM C.P: 2.2 kms

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SPPL 16 Mile Creek CP2



Access from Cross Ave



.Boom Deployment & Containment CP2

SECTION 09.1607: Appendices
Pipeline Spill Response Tactics – 16 Mile Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS (cont'd)

**4th PRIORITY: - ONLY IF LEAK OR SPILL IS FROM EAST 16 MILE CREEK
PROCEED TO CP4**

NEAREST EQUIP SHOP (QMLP) 43 kms **EST. TRAVEL TIME:** 30 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates – N 43° 28.927', W 079° 46.290'**
4228 4TH Line, Erin, Ontario

Take QEW East to 407 ETR to Neyagawa Blvd Exit 18. North on Neyagawa Blvd. which turns into 4th Line.
Follow 4th Line to dead end. Gated access road to East 16 Mile creek.

ACCESS NOTES/ SITE PREPARATION:

CP located on west side by bridge. Truck access to creek is manageable but tight. Set up containment downstream of bridge.

WORKSPACE SIZE: Good **VAC TRUCK ACCESSIBLE:** tight **POSSIBLE STAGING AREA:** Good access right to site down steep access hill . Owned by Oakville Parks and Recreation 905-845-6601

BOAT LAUNCH: not required

STREAM WIDTH: 10m **STREAM DEPTH:** 0.5-1.0 m **BED MATERIAL:** Rocky/ boulders

CONTAINMENT METHOD

Sorbent materials & booms
skimmers

WATER RIGHTS USERS:

None identified

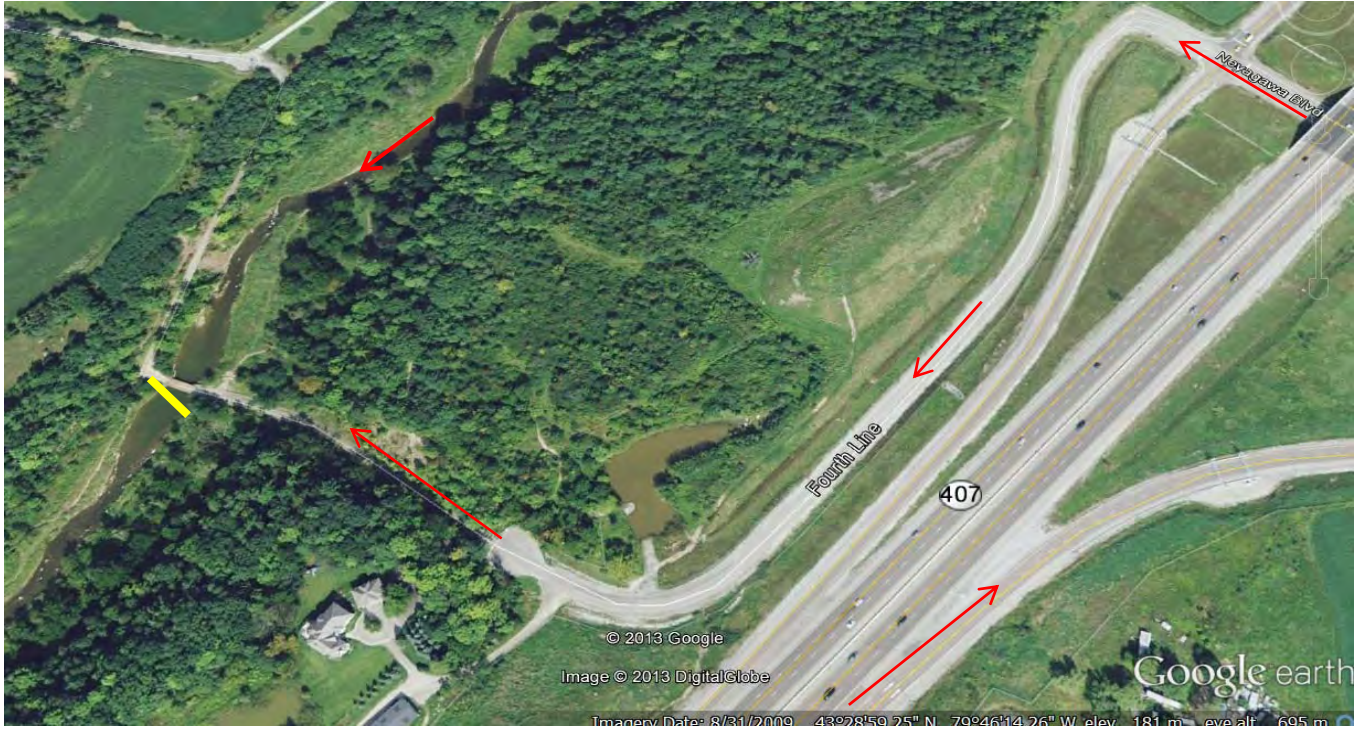
DIST. UPSTREAM TO PIPELINE: 2.0 kms

UPSTREAM C.P: NA kms

DOWNSTREAM C.P: 7.5 kms

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SPPL East 16 Mile Creek CP4



Overview



Boom Deployment & Containment

SECTION 09.1607: Appendices
Pipeline Spill Response Tactics – 16 Mile Creek


SPPL East 16 Mile Creek CP4 (contd)



Access route to CP4 @ end of 4th Line

This page for drawing of Map 163 named: [SPPL 17](#)



TITLE **Imperial Oil - Emergency Response Plans**
SECTION 09: Appendices
SUBJECT1608:  Maps Pipeline Spill Response Tactics – Cooksville Creek

Plan Index and Hyperlinks

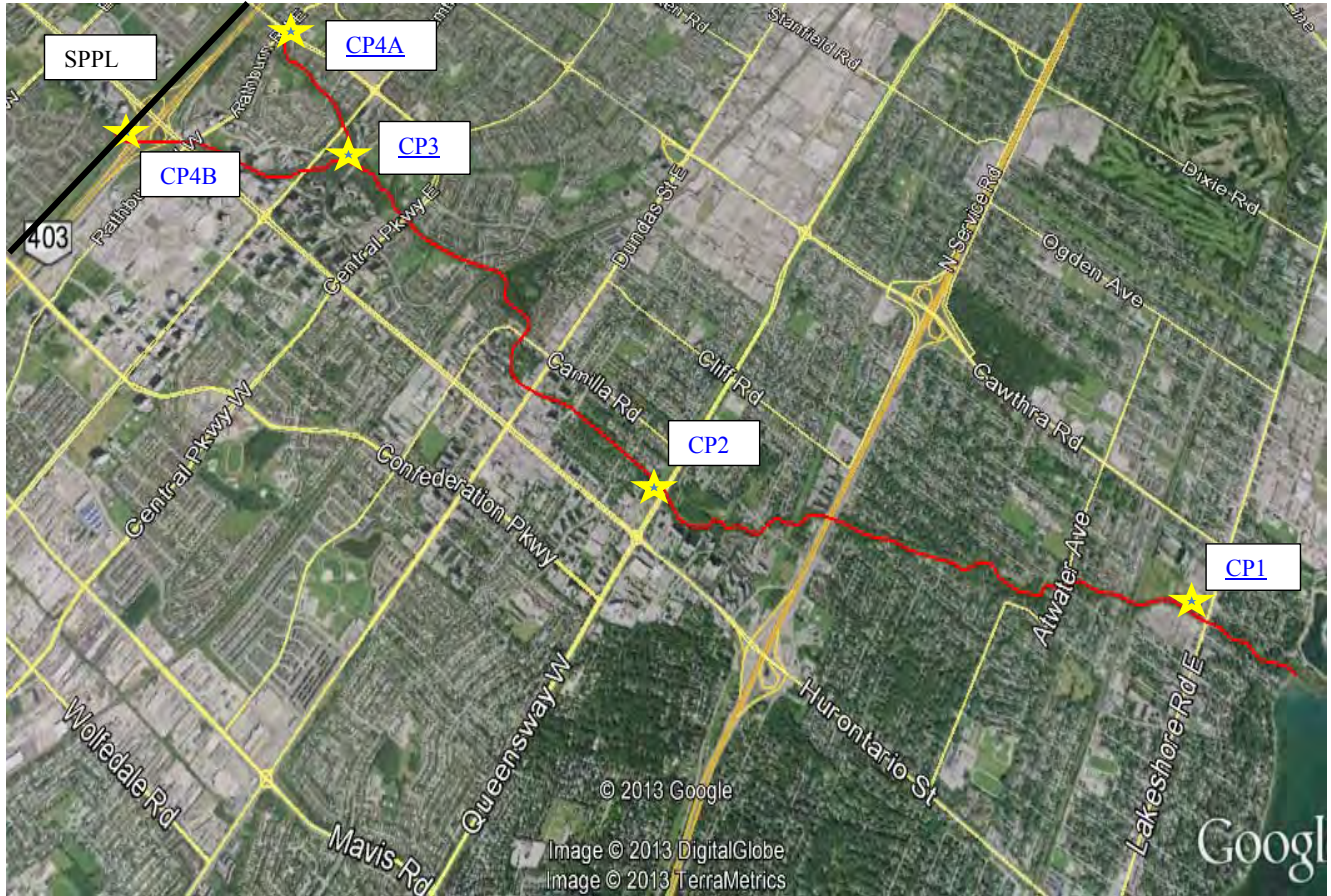
Title
<u>Municipal Information</u>
<u>Overview</u>
<u>Site Specific Emergency Response Tactics</u>

SECTION 09.1608: Appendices

Maps Pipeline Spill Response Tactics – Cooksville Creek

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics		Watercourse Name	<u>Cooksville Creek</u>												
		Watercourse Crossing #	<u>Map 163-Mile 155.5</u>												
		Location	<u>Mississauga</u>												
Municipal Information															
Municipality or Township:	City of Mississauga 311 or 905-615-4311 (outside city)														
Contact:	Commissioner of Transportation and Works	After hours Dispatch													
Telephone:	(905) -615-3200 ext 5112	(905)-615-3000													
Fire:	911 or (905) 615-3777														
Police:	911 or (905) 453-3311														
Ambulance:	911														
Regional Spill Response Coordinator:	Spill Response Coordinator														
Telephone:	(905) 791-7800 24hr Number														
<p>1. Watercourse Characteristics At Pipeline Crossing:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Volumetric Flow Rate (daily)</th> <th style="text-align: left;">Dimensions</th> <th style="text-align: left;">Other</th> </tr> </thead> <tbody> <tr> <td>Mean: 0.357 m3/s</td> <td>Avg. Width: 4m</td> <td>Bed Material: limestone</td> </tr> <tr> <td>Max: 7.83 m3/s (2006)</td> <td>Avg. Depth: .02m</td> <td></td> </tr> <tr> <td>Min: 0.026 m3/s (2007)</td> <td>Max. Width: 5m</td> <td></td> </tr> </tbody> </table>				Volumetric Flow Rate (daily)	Dimensions	Other	Mean: 0.357 m3/s	Avg. Width: 4m	Bed Material: limestone	Max: 7.83 m3/s (2006)	Avg. Depth: .02m		Min: 0.026 m3/s (2007)	Max. Width: 5m	
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Mean: 0.357 m3/s	Avg. Width: 4m	Bed Material: limestone													
Max: 7.83 m3/s (2006)	Avg. Depth: .02m														
Min: 0.026 m3/s (2007)	Max. Width: 5m														
<p>2. Potential Environmental Sensitivities:</p> <p>Urbanized area and mature forested parkland. Flows through Missussauga Valley, Stonebrook, R. Jones, Cooksville, and Camille Parks. Mouth is at the Lakefront Promenade.</p> <p>Thornwood Public School (S. Mississauga Valley Blvd) backs onto the creek.</p>															

SECTION 09.1608: Appendices
Pipeline Spill Response Tactics – Cooksville Creek



Overview

SECTION 09.1608: Appendices

Maps Pipeline Spill Response Tactics – Cooksville Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than one containment point can be worked simultaneously. Note: Contractor response time (QMLP 2hrs. from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

**1st PRIORITY:
PROCEED TO CP1**

NEAREST EQUIP SHOP (QMLP) 56 kms. **EST. TRAVEL TIME:** 42 minutes

DIRECTIONS TO CONTAINMENT POINT: GPS Co-ordinates – N 43° 33.996', W 079° 34.182

517 Lakeshore Rd E. Mississauga

Take QEW East to Toronto.. Take Cawthra Rd exit 134, Turn right onto Cawthra Rd to Lakeshore Rd E. Turn right on Lakeshore to parking lot @ 517 Lakeshore road on right.

ACCESS NOTES/SITE PREPARATION:

Cooksville Creek is east of parking lot. Set up for containment and recovery by bridge.

WORKSPACE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Parking lot west of Cooksville Creek.

BOAT LAUNCH:

Not required

STREAM WIDTH: 7.0m **STREAM DEPTH:** 0.2 m **BED MATERIAL:** Limestone

CONTAINMENT METHOD

Low flow sorbent booms

Last containment point before Lake Ontario

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 9.1 kms.

UPSTREAM C.P. 3.4 kms.

DOWNSTREAM C.P: NA

SPPL Cooksville Creek CP1



Access from north side @ 517 Lakeshore Rd.



Boom placement CP1

SECTION 09.1608: Appendices

Maps Pipeline Spill Response Tactics – Cooksville Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than one containment point can be worked simultaneously. Note: Contractor response time (QMLP 2hrs. from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

2nd PRIORITY:

PROCEED TO CP2

NEAREST EQUIP SHOP (QMLP) 53 kms. **EST. TRAVEL TIME:** 39 minutes

DIRECTIONS TO CONTAINMENT POINT: GPS Co-ordinates – N 43° 34.582' W 079° 36.324'

53 Queensway Ave. E. Mississauga

Take QEW East to Toronto. Take ramp at Exit 132 to Hurontario St. Left on Hurontario to Queensway. Left onto Queensway to #53 on right.

ACCESS NOTES/SITE PREPARATION:

Cooksville Creek is east of parking lot. Take asphalt pedestrian walkway toward river. Set up for containment and recovery near bridge

WORKSPACE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Parking lot west of Cooksville Creek

BOAT LAUNCH:

Not Required

STREAM WIDTH: 3.0 m **STREAM DEPTH:** 0.5 m **BED MATERIAL:** limestone

CONTAINMENT METHOD

Low flow sorbent booms

DIST. UPSTREAM TO PIPELINE: 5.0 kms.

UPSTREAM C.P. 3.2 kms.

DOWNSTREAM C.P: 3.4 kms

SPPL Cooksville Creek CP2



Access via pedestrian walkway @ 53 Queensway Ave E.



Boom Placement CP2

SECTION 09.1608: Appendices

Maps Pipeline Spill Response Tactics – Cooksville Creek

SITE SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than one containment point can be worked simultaneously. Note: Contractor response time (QMLP 2hrs. from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

**3rd PRIORITY:
PROCEED TO CP4A or 4B DEPENDING ON SPILL LOCATION**

CP4A

NEAREST EQUIP SHOP (QMLP) 55 kms. **EST. TRAVEL TIME:** 40 minutes

DIRECTIONS TO CONTAINMENT POINT 4A: GPS Co-ordinates – N 43° 36.358' W 079° 38.070'

340 Rathburn Rd. E, Mississauga, Ont

Take QEW East to Hwy 407 Hwy 407 ETR to Hwy 403 E. (Exit 24). Hwy 403 to Hurontario (Exit 119). Stay straight to go to Sherwoodtowne Blvd. Turn Left onto Rathburn and proceed to #340

ACCESS NOTES/SITE PREPARATION:

Small staging area on southwest corner directly beside storm sewer fallout. Area fenced but can get around it.

WORKSPACE: Fair **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Grassy area on south west corner of Rathburn and Centennial

BOAT LAUNCH:

Not required

STREAM WIDTH: 4 m **STREAM DEPTH:** 0.2 m **BED MATERIAL:** limestone

CONTAINMENT METHOD

Containment booms

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: NA

UPSTREAM C.P. NA

DOWNSTREAM C.P: 1.7 kms

SPPL Cooksville Creek CP4A

SECTION 09.1608: Appendices
Pipeline Spill Response Tactics – Cooksville Creek



Access @ 340 Rathburn Rd. E., Mississauga



Boom Placement CP4A

CP4B

SECTION 09.1608: Appendices

Maps Pipeline Spill Response Tactics – Cooksville Creek

NEAREST EQUIP SHOP (QMLP) 55 kms. **EST. TRAVEL TIME:** 40 minutes

DIRECTIONS TO CONTAINMENT POINT 4B: **GPS Co-ordinates – N 43° 35.998' W 079° 38.864'**

Take QEW East to Hwy 407 Hwy 407 ETR to Hwy 403 E. (Exit 24). Hwy 403 to Hurontario (Exit 119). Turn left (north on Hurontario, Make U turn at lights to westbound ramp of 403. Access is on right side part way down the ramp to Hydro One right of way.

ACCESS NOTES/SITE PREPARATION:

Creek crossing at pipeline.

WORKSPACE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Grassy area Hydro One right of way & pipeline crossing

BOAT LAUNCH:

Not required

STREAM WIDTH: 5m **STREAM DEPTH:** 0.5 m **BED MATERIAL:** rock/rubble/ granular

CONTAINMENT METHOD

Containment & sorbent booms

WATER RIGHTS USERS:

None identified

SPPL Cooksville Creek CP4B



Access to Hydro One corridor from Westbound on ramp to Hwy 403

SITE SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than one containment point can be worked simultaneously. Note: Contractor response time (QMLP 2hrs. from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

**4rd PRIORITY:
PROCEED TO CP3**

NEAREST EQUIP SHOP (QMLP) 55 kms. **EST. TRAVEL TIME:** 43 minutes

DIRECTIONS TO CONTAINMENT POINT: GPS Co-ordinates – N 43° 35.777 W 079° 36.324

1397 Mississauga Valley Road

Take QEW East to Hwy 407 Hwy 407 ETR to Hwy 403 E. (Exit 24). Hwy 403 to Hurontario (Exit 119).. South (right) on Hurontario to Burnhamthorpe. East (left) on Burnhamthorpe to Arista Dr. South(right) on Arista to Mississauga Valley Road. East (left) on Mississauga Valley Rd to creek.

ACCESS NOTES/SITE PREPARATION:

Access very poor. Take footpath off north west side of Mississauga Valley Rd to creek. No access for equipment. Best point of containment on south side of Miss Vally Rd. Vac truck can be parked on road on south side.

WORKSPACE: Poor **VAC TRUCK ACCESSIBLE:** No **POSSIBLE STAGING AREA:** Very limited to right lane on road

BOAT LAUNCH:
Not required

STREAM WIDTH: 4 m **STREAM DEPTH:** 0.2 m **BED MATERIAL:** limestone

CONTAINMENT METHOD

Low flow Sorbent booms

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 1.7 kms.

UPSTREAM C.P. 1.5 kms.

DOWNSTREAM C.P: 3.2 kms

SECTION 09.1608: Appendices

Maps Pipeline Spill Response Tactics – Cooksville Creek

SPPL Cooksville Creek CP3



Access @ 1397 Mississauga Valley Road



Boom Placement CP3

TITLE **Imperial Facility** Emergency Plan
SECTION 09: **Appendices** .
SUBJECT 1609: [Pipeline Spill Response Tactics Mimico Creek](#) .

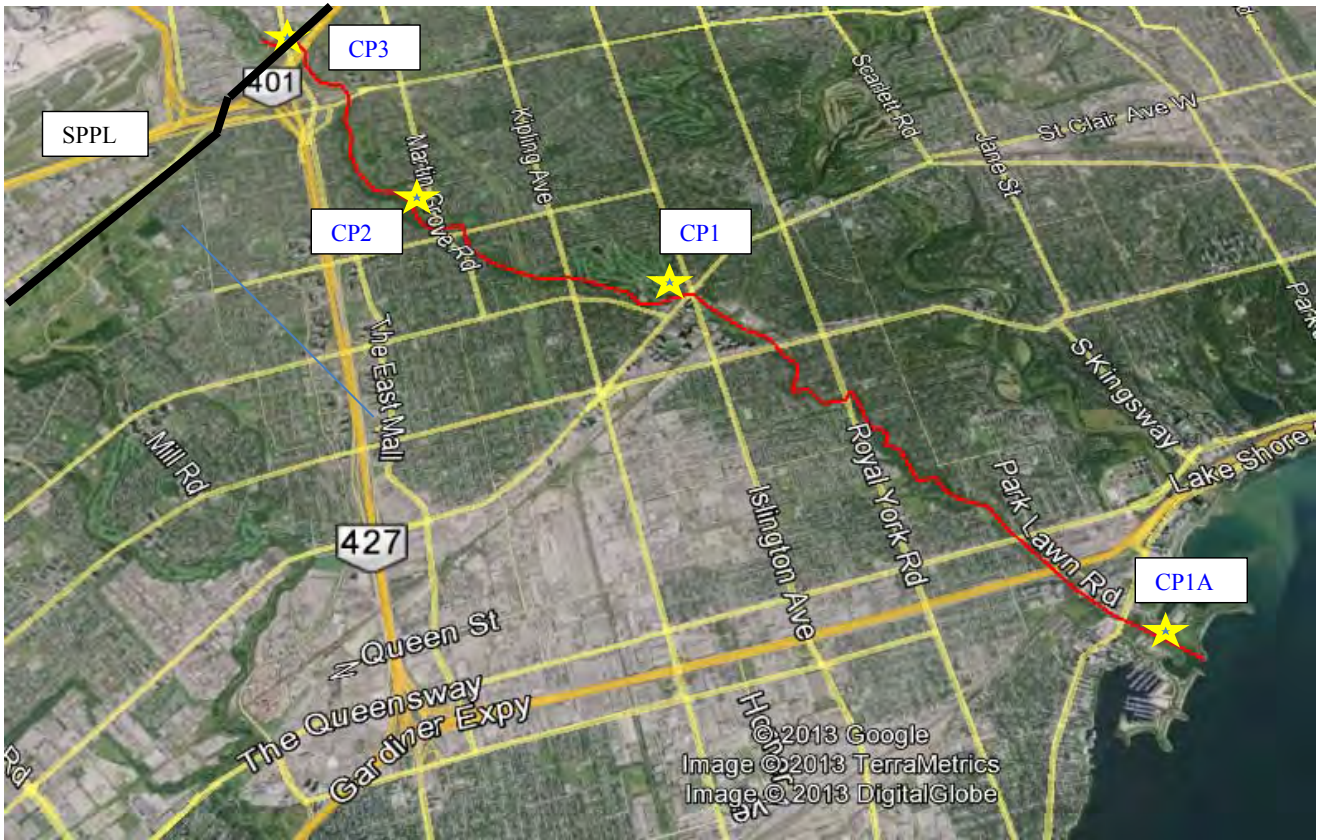
Plan Index and Hyperlinks

Imperial Facility
Municipal Information
Overview
Site Specific Emergency Response Tactics

SECTION 09.1609: **Appendices .**
 Pipeline Spill Response Tactics –.Mimico Creek.

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics		Watercourse Name	<u>Mimico Creek</u>
		Watercourse Crossing #	<u>Map 170-Mile 162.2</u>
		Location	<u>Etobicoke</u>
Municipal Information			
Municipality or Township:	City of Toronto (Etobicoke)		
	311 or 416-392-2489 24/7 numbers		
Contact:			
Telephone:			
Fire:	911 or Dispatch (416) 338-9000		
Police:	911 or (416) 808-2222		
Ambulance:	911 or (416) 392-2000		
Regional Spill Response Coordinator	Toronto Spill Response	Ministry of the Environment - 24 hr Spills Action Center	
Telephone	311	(416) 325-3000 or 1-800-268-6060	
1. Watercourse Characteristics At Pipeline Crossing:			
Volumetric Flow Rate (daily)		Dimensions	Other
Mean	0.81m ³ /s	Avg. Width: 5m	Bed Material: rock/rubble/ granular
Max	38.5 m ³ /s (1989)	Avg. Depth: .3m	
Min.	0.021m ³ /s (1993)	Max. Width: 8m	
2. Potential Environmental Sensitivities:			
Runs through West Deane Park and Islington Golf Club.			
Surrounded by urban area.			
Fours schools between Royal York Rd and The Queensway back onto the creek - from the north:			
~ Sunnylea Junior Elementary School,			
~ Saine Marguerite d'Youville (Fr),			
~ Bishop Allan Academy			
~ Etobicoke School of the Arts.			

SECTION 09.1609: Appendices .
Pipeline Spill Response Tactics – Mimico Creek



Overview

SECTION **09.1609:** **Appendices .**
Pipeline Spill Response Tactics –.Mimico Creek.

SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than one containment point can be worked simultaneously. Note: Contractor response time (QMLP 2hrs. from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

1st PRIORITY:
PROCEED TO CP1A

NEAREST EQUIP SHOP (QMLP) 65 kms. **EST. TRAVEL TIME:** 48 minutes

DIRECTIONS TO CONTAINMENT POINT: **GPS Co-ordinates – N 43° 37.217', W 079° 28.775'**

137 Humber Bay Park Road W.

Take QEW East to Toronto. Stay left onto Gardiner Expressway. Take Park Lawn Rd exit 144 Turn right onto Park Lawn Road to Lakeshore. Turn right on Lakeshore to Humber Bay Park Road on left.

ACCESS NOTES/SITE PREPARATION:

Humber Bay Park Road W. Parking lot is west of creek. Stage near boat launch

WORKSPACE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Parking lot west of Mimico Creek.

BOAT LAUNCH:

At park. Boat launch near containment area

STREAM WIDTH: 80m **STREAM DEPTH:** >2.0 m **BED MATERIAL:** rock/rubble/ granular

CONTAINMENT METHOD

Use boat, 90 cm commercial boom

Sorbent booms/skimbers

Last containment point before Lake Ontario

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 13.5 kms.

UPSTREAM C.P. 6.5 kms.

DOWNSTREAM C.P: NA

SECTION 09.1609: Appendices .
Pipeline Spill Response Tactics – Mimico Creek

SPPL Mimico Creek CP1A



Access via Humber Park Rd



Boom placement @ CP1A

SECTION 09.1609: **Appendices .**
Pipeline Spill Response Tactics –.Mimico Creek.

SITE SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than one containment point can be worked simultaneously. Note: Contractor response time (QMLP 2hrs. from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

**2nd PRIORITY:
PROCEED TO CP1**

NEAREST EQUIP SHOP (QMLP) 65 kms. **EST. TRAVEL TIME:** 50 minutes

DIRECTIONS TO CONTAINMENT POINT: GPS Co-ordinates – N 43° 39.077, W 079° 31.680

3 Riverbank Dr., Etobicoke

Take QEW East to Toronto. Take exit 142B Islington Ave.N. North on Islington Ave to Riverbank Drive on Left. Staging area on right side of Riverbank Dr.

ACCESS NOTES/SITE PREPARATION:

Humber River to west of parking lot. Take asphalt pedestrian walkway toward river. Cross over to walkway that follows under the bridge. Set up for containment and recovery under bridge. (Figure16C- 3&4)

WORKSPACE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Grassy area beside creek on Riverbank Dr.

BOAT LAUNCH:

Not required

STREAM WIDTH: 10m **STREAM DEPTH:** less than 0.5 m **BED MATERIAL:** rock/rubble/ granular

CONTAINMENT METHOD

Sorbent booms/skimers

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: 6.5 kms.

UPSTREAM C.P. 2.9 kms.

DOWNSTREAM C.P: 6.7 kms

SPPL Mimico Creek CP1



Access @ 3 Riverbank Drive, Etobicoke



Boom Placement @CP1

SECTION 09.1609: **Appendices .**
Pipeline Spill Response Tactics –.Mimico Creek.

SITE SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than one containment point can be worked simultaneously. Note: Contractor response time (QMLP 2hrs. from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

**3rd PRIORITY:
PROCEED TO CP2**

NEAREST EQUIP SHOP (QMLP) 64kms. **EST. TRAVEL TIME:** 48 minutes

DIRECTIONS TO CONTAINMENT POINT: GPS Co-ordinates – N 43° 39.676, W 079° 33.484

350 Martin Grove Rd, Etobocoke

Take QEW East to Toronto. Merge at Hwy 427 N (Exit 139). North on Hwy 427 to Rathburn Rd. Right (east) on Rathburn to martin Grove. Left (north) on Martin Grove to entrance to West Dean Park on left.

ACCESS NOTES/SITE PREPARATION:

Mimico Creek to west of parking lot. Take asphalt pedestrian walkway toward creek. Set up for containment north of pedestrian bridge. Gated but accessible for equipment.

WORKSPACE: Good **VAC TRUCK ACCESSIBLE:** Yes **POSSIBLE STAGING AREA:** Parking lot east of Mimico

BOAT LAUNCH:
Not required

STREAM WIDTH: 5 m **STREAM DEPTH:** less than 0.5 m **BED MATERIAL:** rock/rubble/ granular

CONTAINMENT METHOD
Sorbent booms/skimers

WATER RIGHTS USERS:
None identified

DIST. UPSTREAM TO PIPELINE: 3.65 kms.

UPSTREAM C.P. 3.6 kms.

DOWNSTREAM C.P: 2.9 kms

SPPL Mimico Creek CP2



Access@ West Dean Park, 350 Martin Grove Road, Etobicoke



Boom Placement @CP2

SECTION 09.1609: **Appendices .**
Pipeline Spill Response Tactics –.Mimico Creek.

SITE SPECIFIC EMERGENCY RESPONSE TACTICS

Upon activation of the emergency response plan, Pipeline & Distribution 1st responders and contract ER Company (Quantum Murray (QMLP) and/or ECRC) will be directed utilizing the following steps in order of priority. If adequate response resources available, more than one containment point can be worked simultaneously. Note: Contractor response time (QMLP 2hrs. from a major center, ECRC 6hrs.) from time of activation.

NOTE: IF SPILL IS GASOLINE DO NOT INSTALL CONTAINMENT BOOMS, ONLY DEFLECTOR BOOMS

**4th PRIORITY:
PROCEED TO CP3**

NEAREST EQUIP SHOP (QMLP) 68 kms. **EST. TRAVEL TIME:** 51 minutes

DIRECTIONS TO CONTAINMENT POINT: GPS Co-ordinates – N 43° 40.752, W 079° 34.843

289 Galaxy Blvd, Toronto

Take QEW East to Toronto. Stay left onto Hwy 407 ETR in Burlington. Take Hwy 407 to Hwy 403 East. Hwy 403 east to Hwy 401 east. Exit at Renforth Drive (exit 348). Left (north) on Renforth Drive (Renforth becomes International) to Galaxy Blvd. Right on Galaxy to Mimico Creek.

ACCESS NOTES/SITE PREPARATION:

Access to pipeline crossing and creek in very limited as it is between Galaxy & Hwy 27 in an area with limited access. Access to the pipeline right of way from the west side, in service road just east of Molson's Brewery.

WORKSPACE: rough terrain **VAC TRUCK ACCESSIBLE:** no **POSSIBLE STAGING AREA:** On hill to west of creek crossing.

BOAT LAUNCH:
Not required

STREAM WIDTH: 7m **STREAM DEPTH:** 0.5 m **BED MATERIAL:** rock/rubble/ granular

CONTAINMENT METHOD

Sorbent booms/skimers

WATER RIGHTS USERS:

None identified

DIST. UPSTREAM TO PIPELINE: NA.

UPSTREAM C.P. NA

DOWNSTREAM C.P: 3.65 kms

SECTION 09.1609: Appendices .
Pipeline Spill Response Tactics – Mimico Creek

SPPL Mimico Creek CP3 & Pipeline Crossing

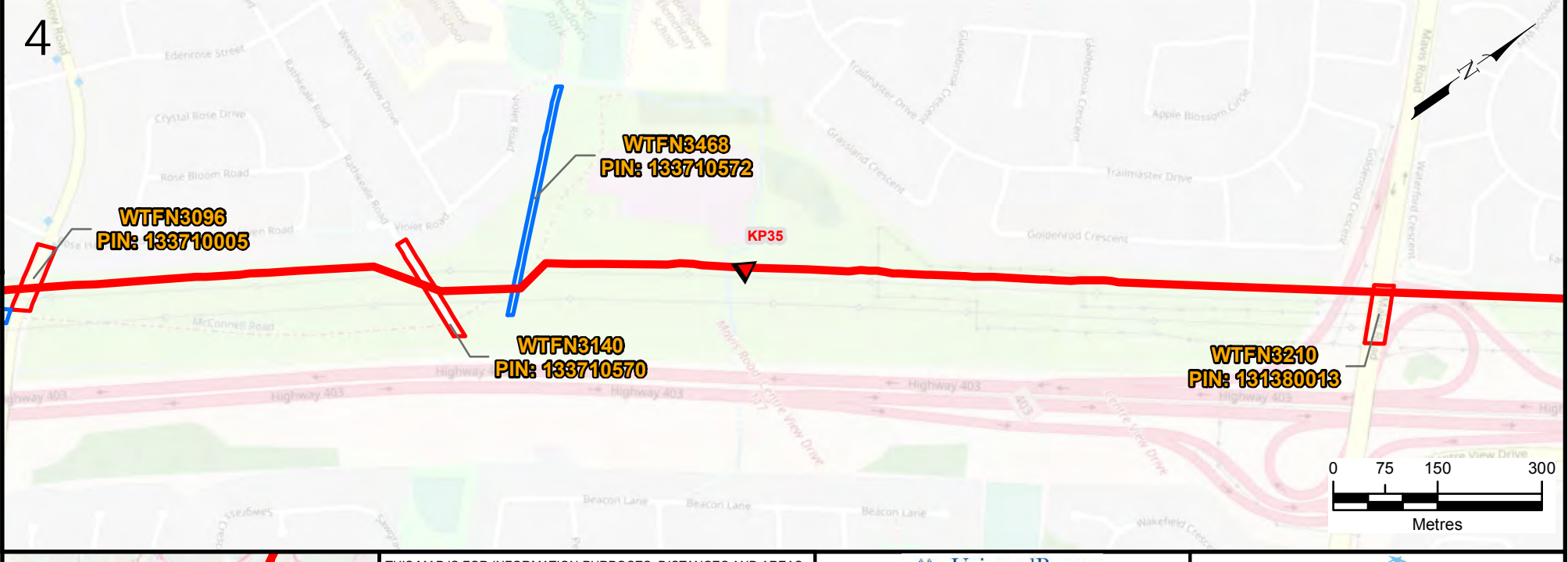
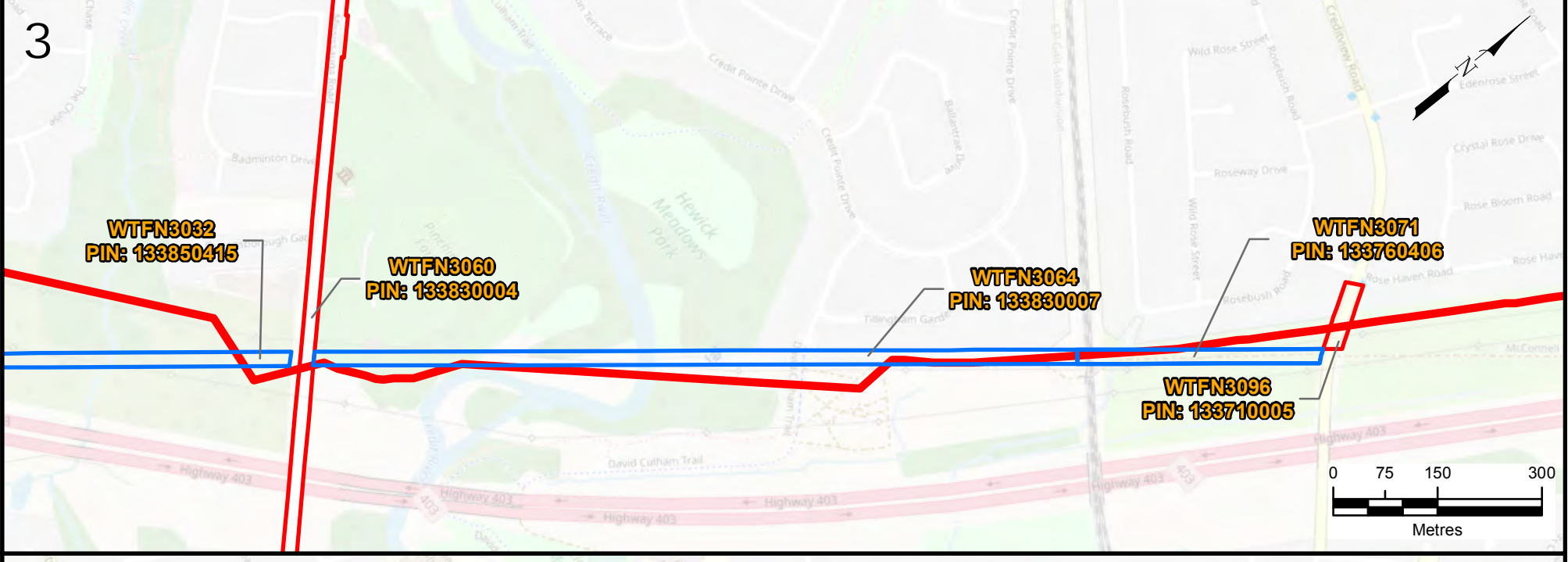
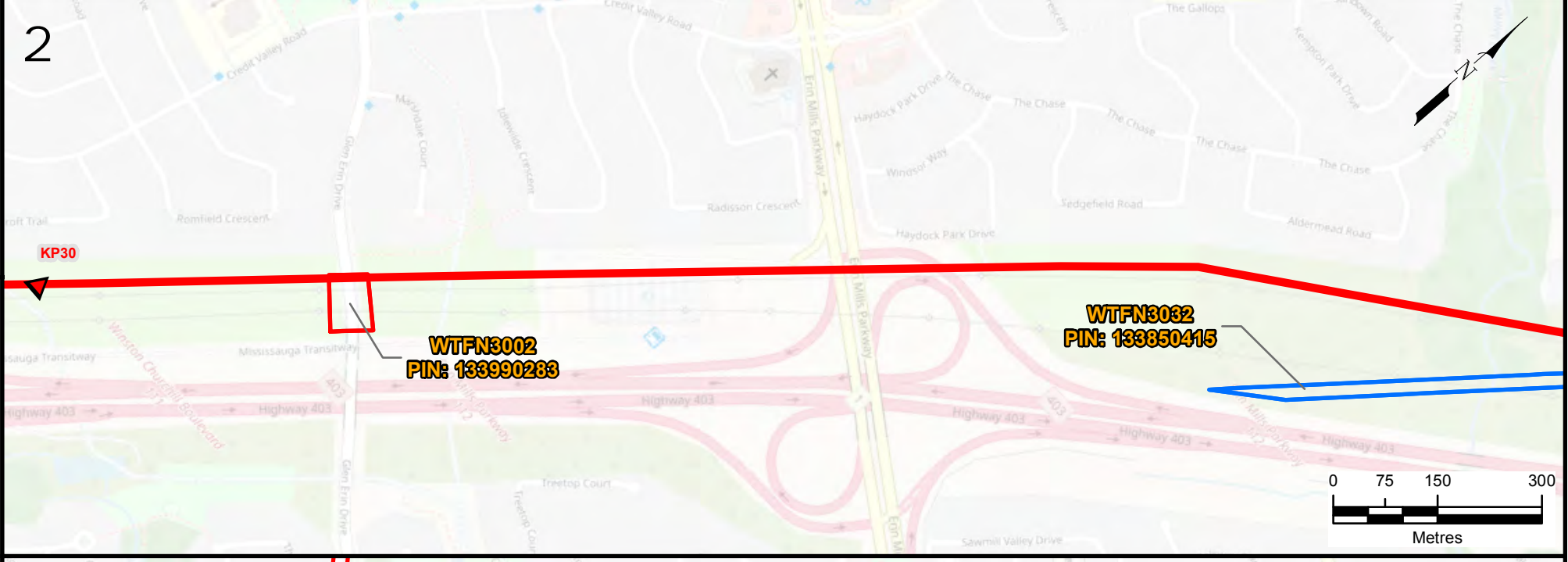
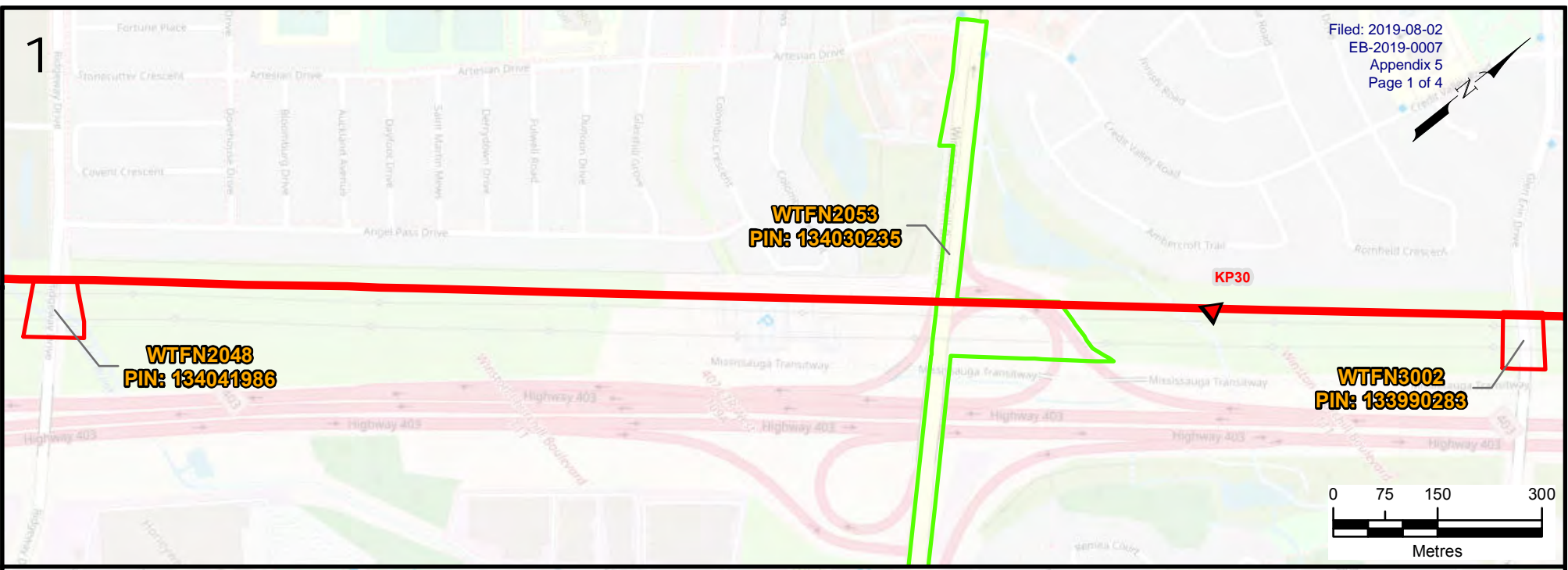


Access @ 289 Galaxy Blvd.



Boom Placement @

APPENDIX 5 CITY OF MISSISSAUGA PARCEL REFERENCE MAPS



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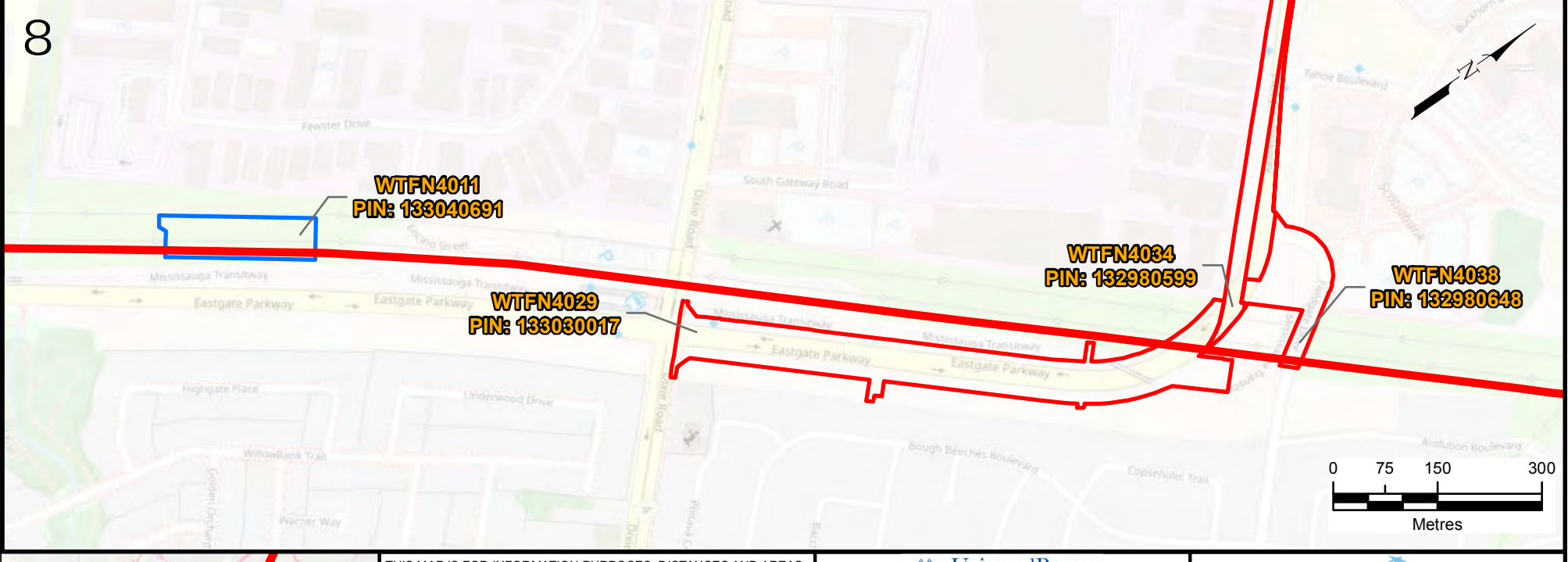
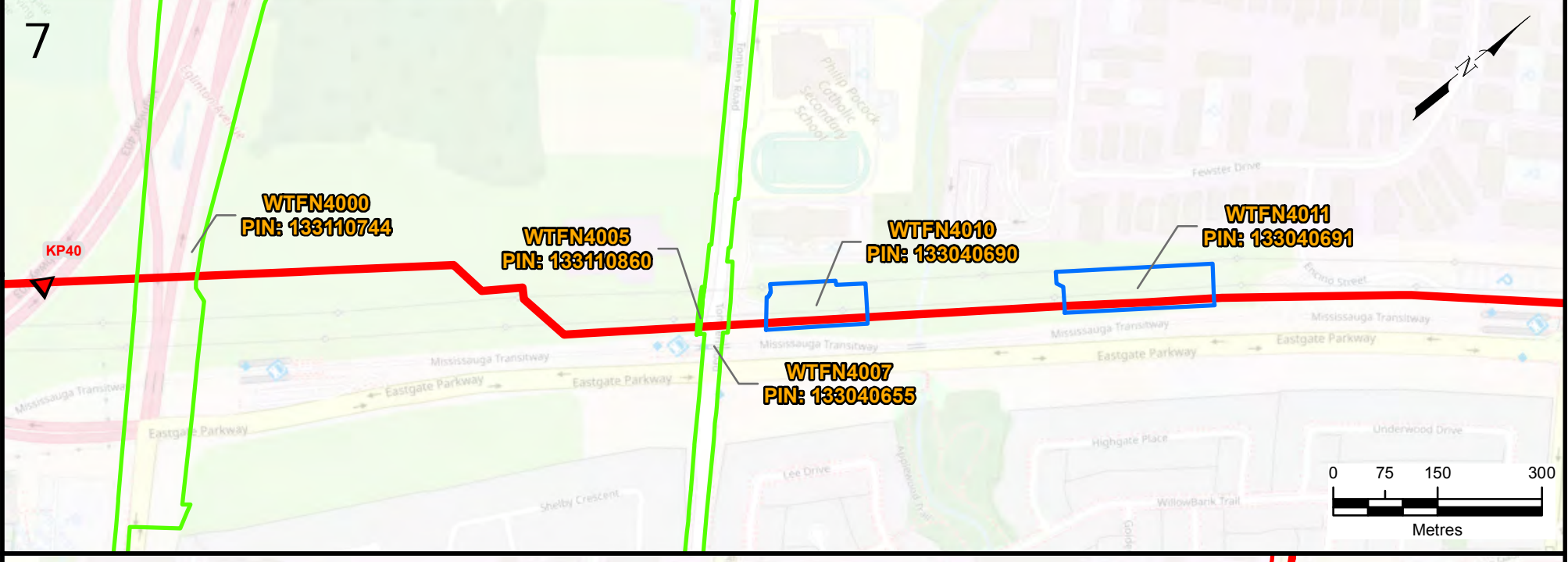
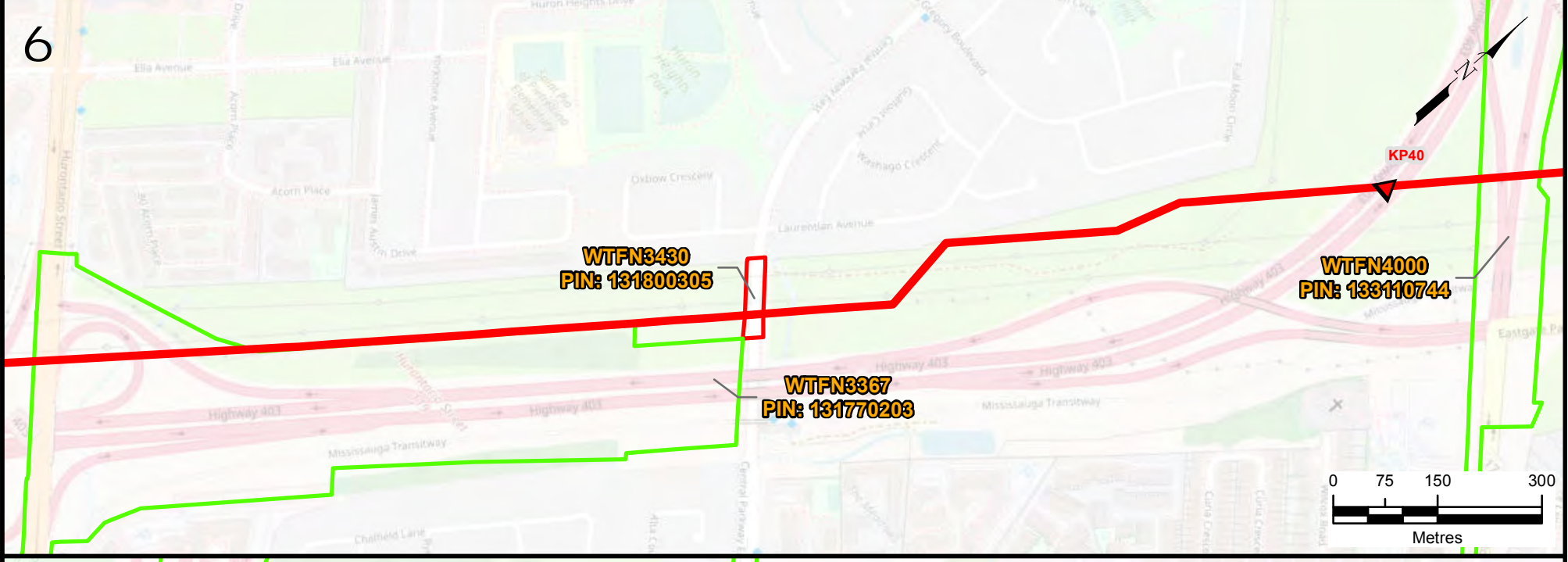
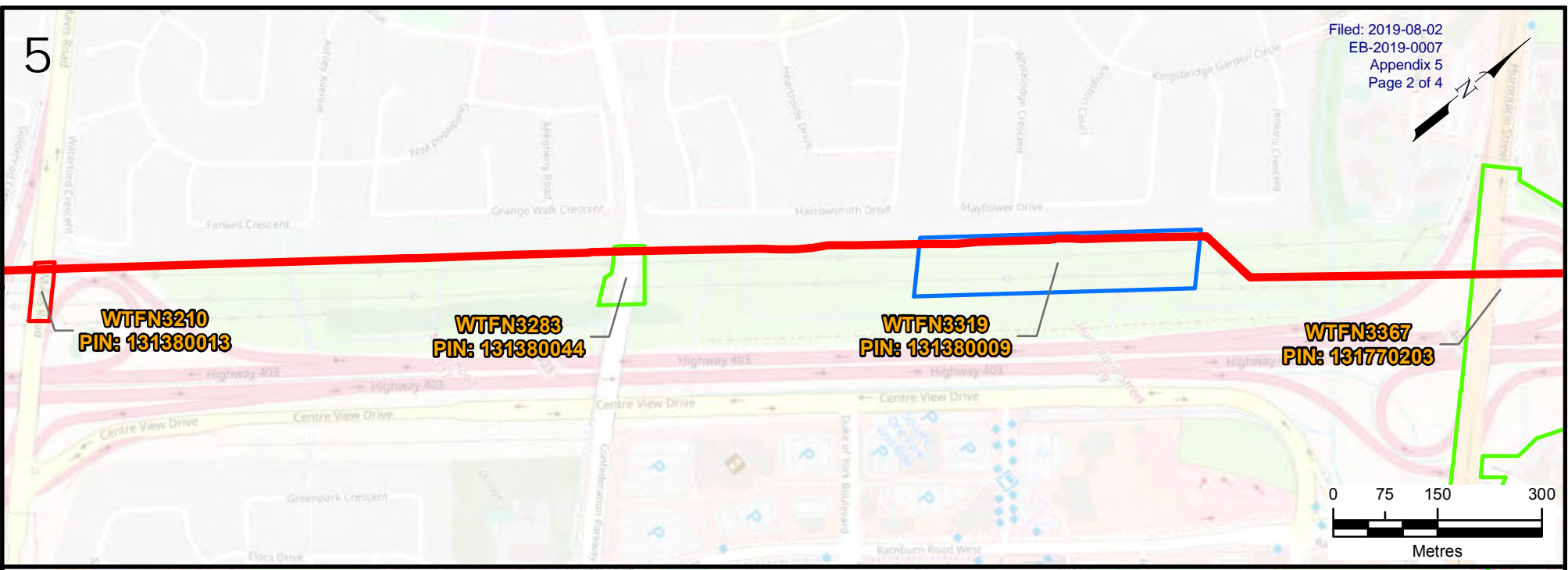
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Legend

- Proposed Pipeline
- ▭ MTO Jurisdiction
- ▭ Public Road
- ▭ Surplus Lands

A Subsidiary of Hursington Ingalls Industries				
3	ISSUE FOR INFORMATION	08/02/2019	JAW	
2	ISSUE FOR INFORMATION	08/02/2019	JAW	
1	ISSUE FOR INFORMATION	07/25/2019	JAW	
0	ISSUE FOR INFORMATION	07/23/2019	JAW	
NO	REVISION	DATE	APPR	
SCALE	DATE	DRAWN	CHECKED	APPROVED
N.T.S.	07/23/2019	JCW	HMC	JAW





WATERDOWN TO FINCH PROJECT CITY OF MISSISSAUGA PROPOSED PIPELINE PARCEL REFERENCE MAP		
PROJ. NO.	DRAWING NUMBER	SHEET
24255	24255-507-MAP-00096	1 OF 2



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Legend

	Proposed Pipeline		Public Road
	MTO Jurisdiction		Surplus Lands

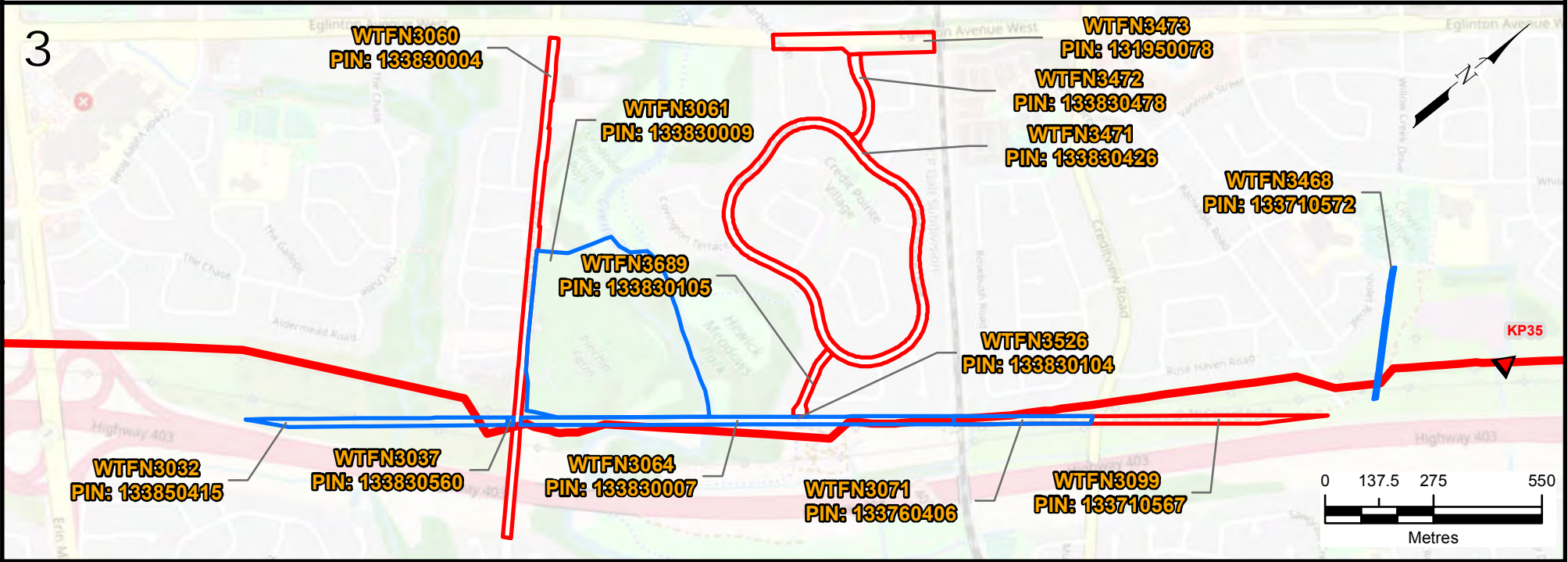
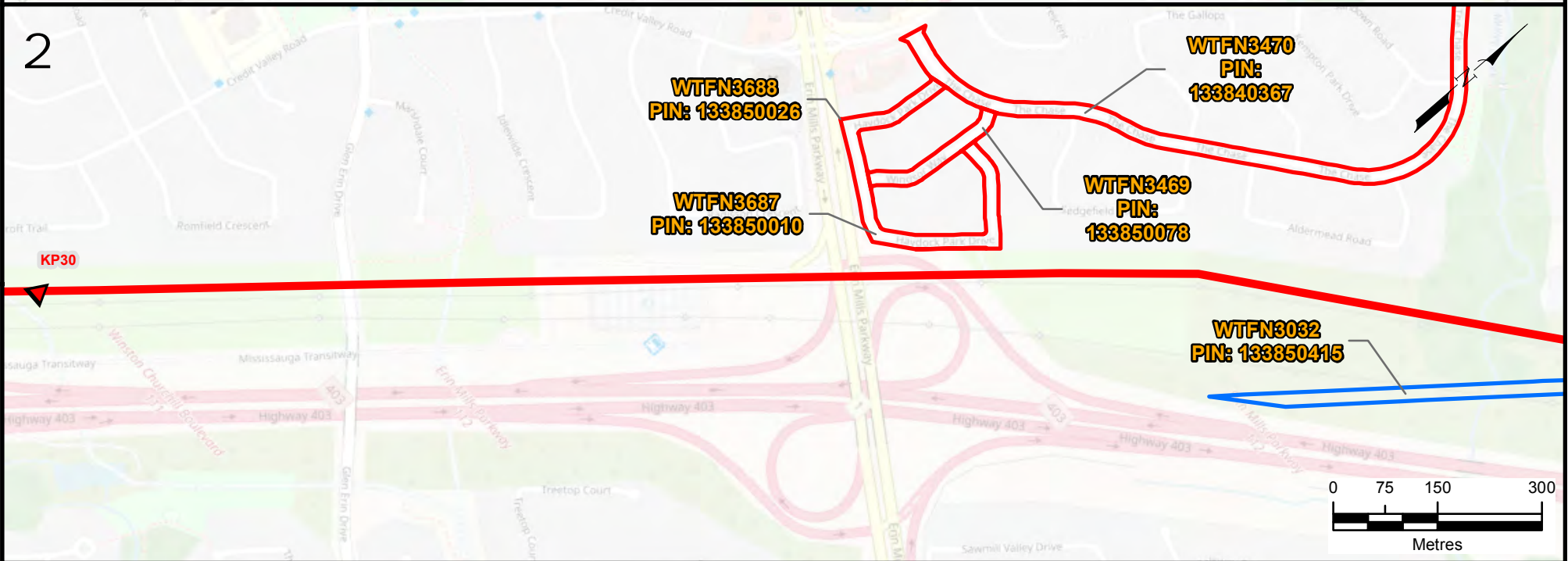
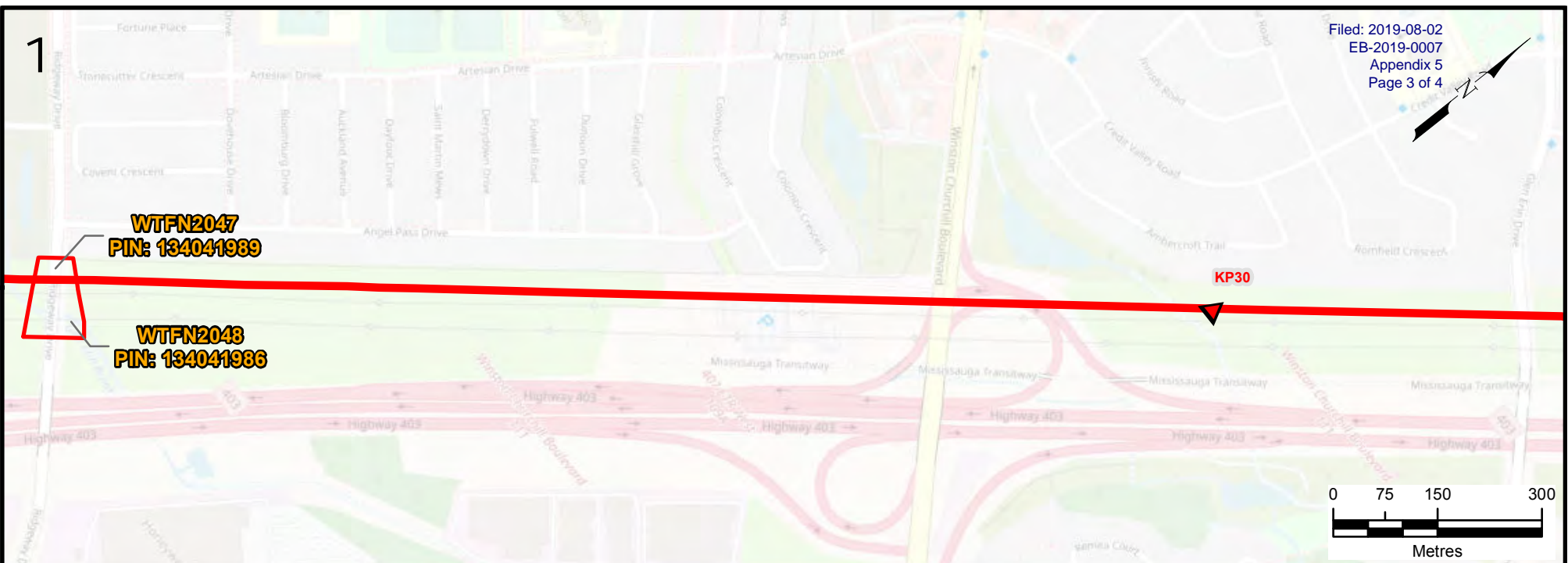


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0	ISSUE FOR INFORMATION	07/23/2019	JAW

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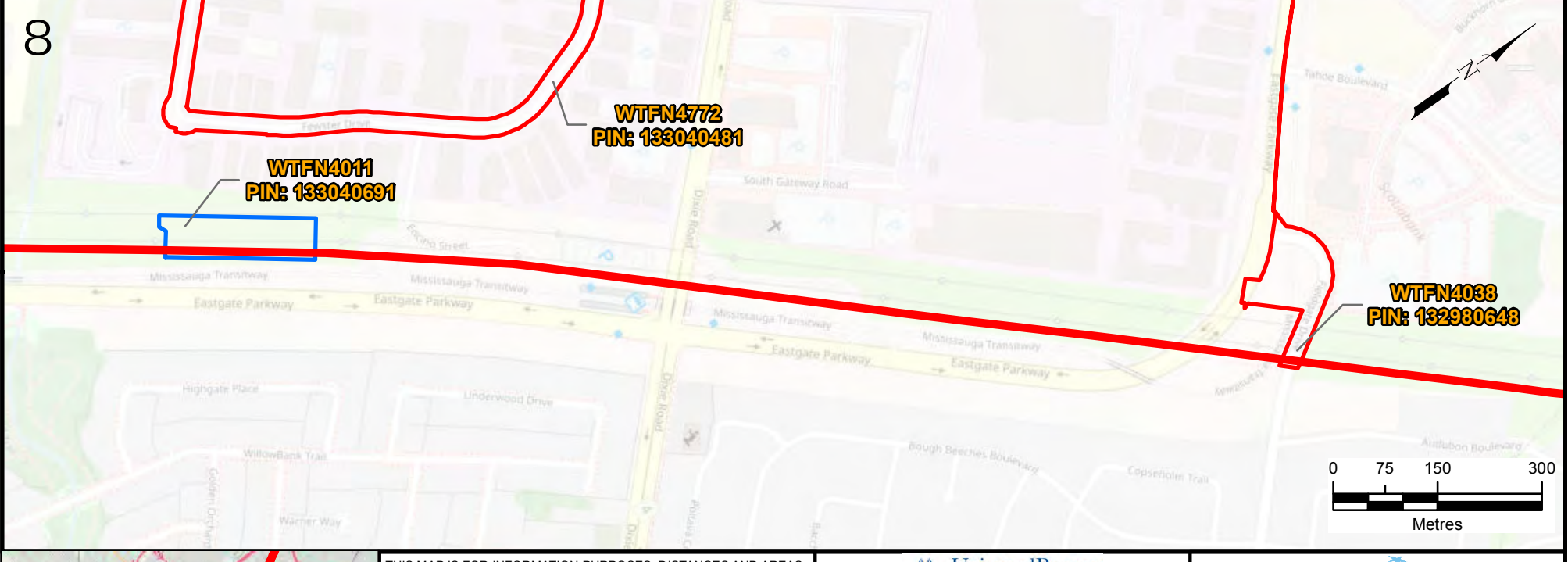
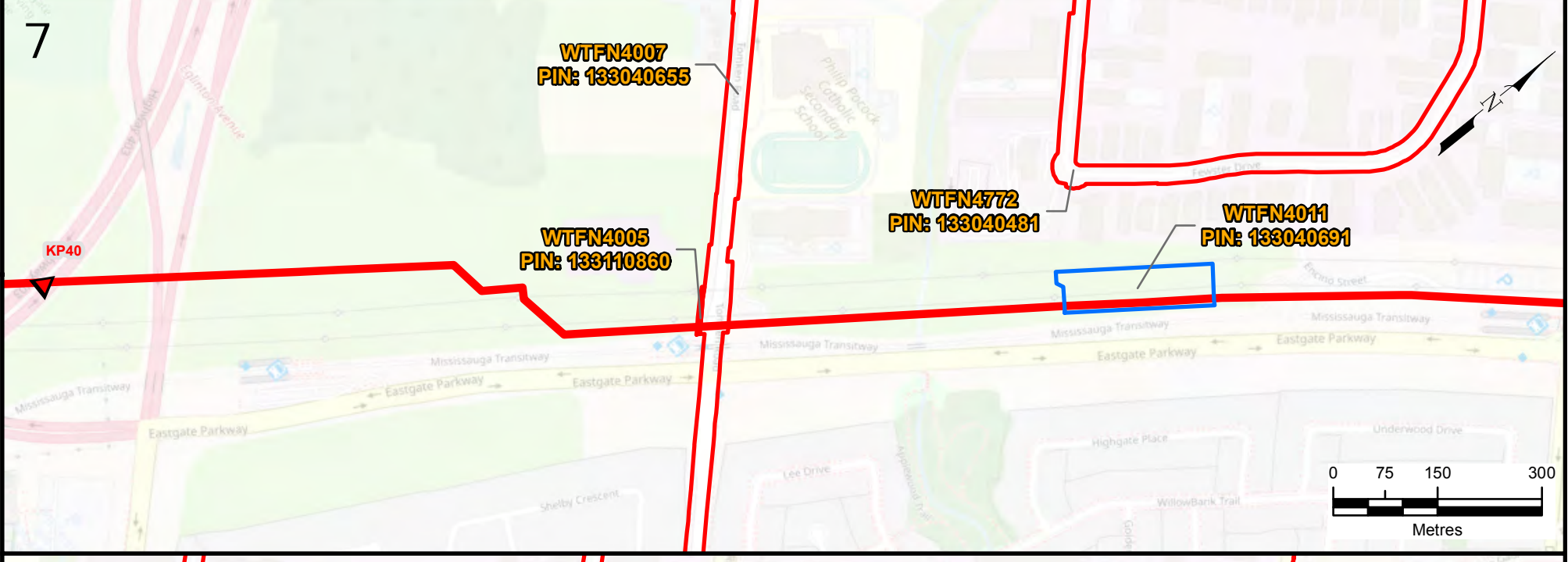
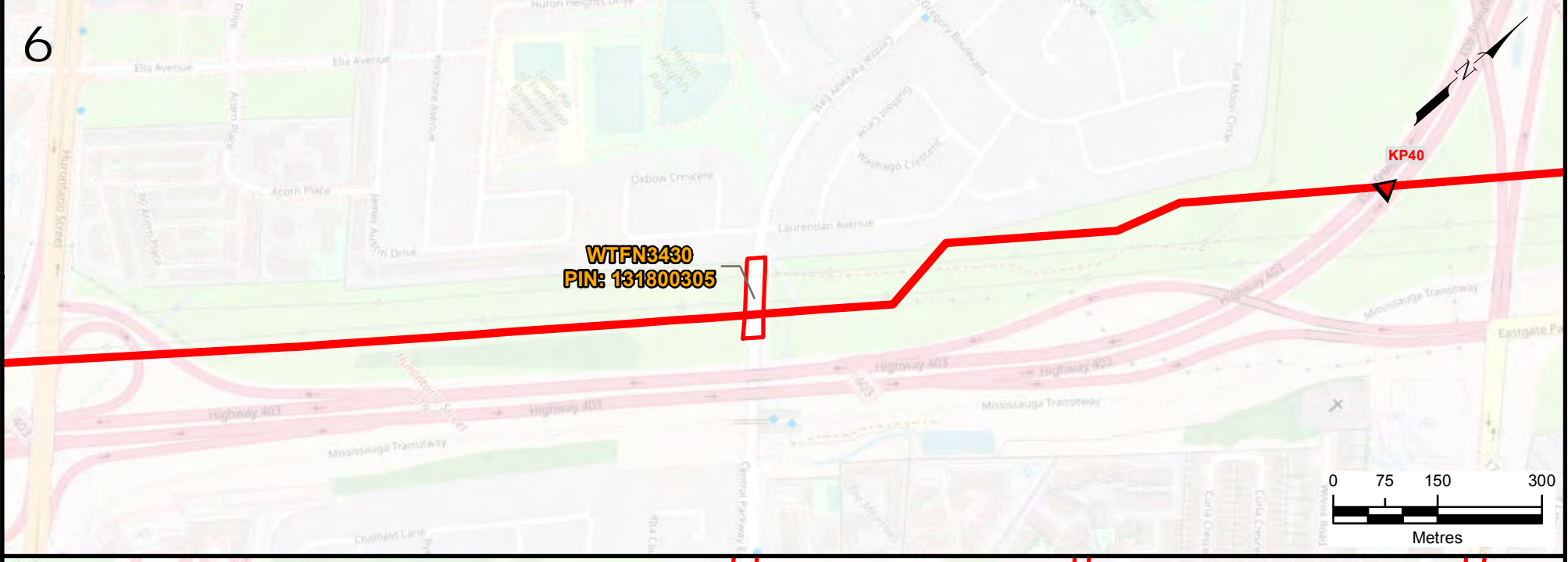
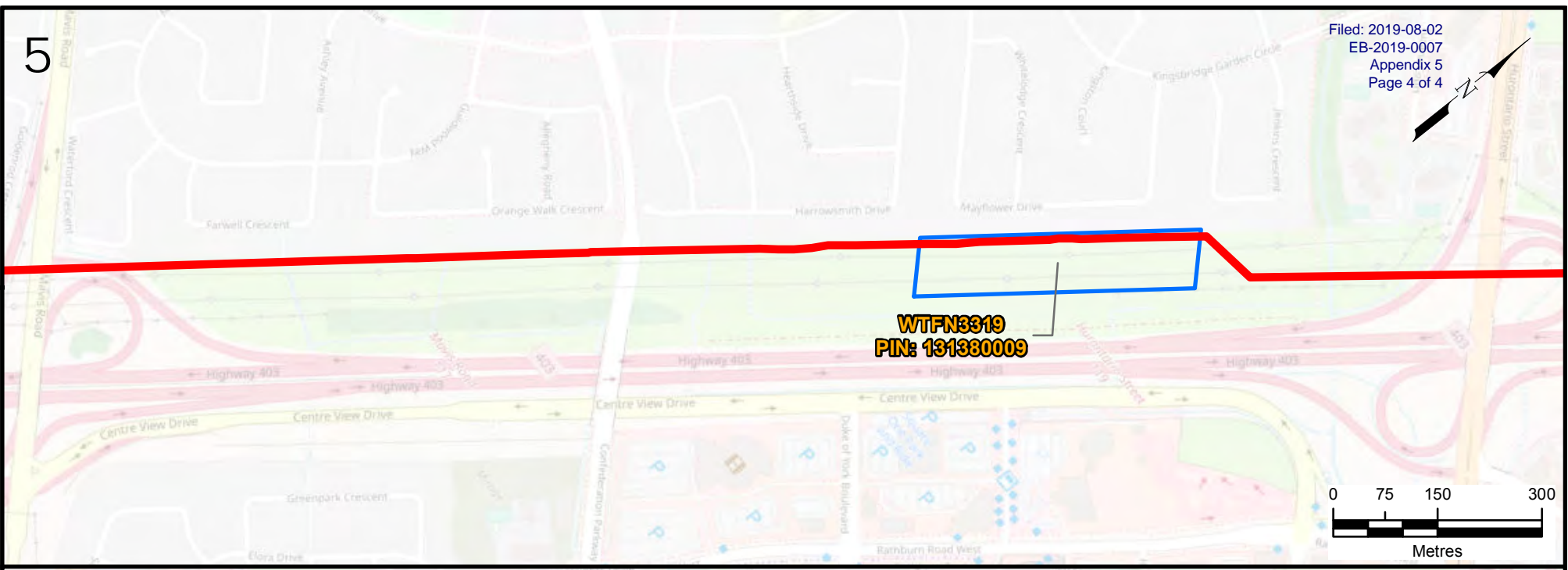


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				WATERDOWN TO FINCH PROJECT CITY OF MISSISSAUGA PROPOSED TEMPORARY WORKSPACE PARCEL REFERENCE MAP			
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2	ISSUE FOR INFORMATION	08/02/2019	JAW				
1	ISSUE FOR INFORMATION	07/25/2019	JAW				
0	ISSUE FOR INFORMATION	07/23/2019	JAW				
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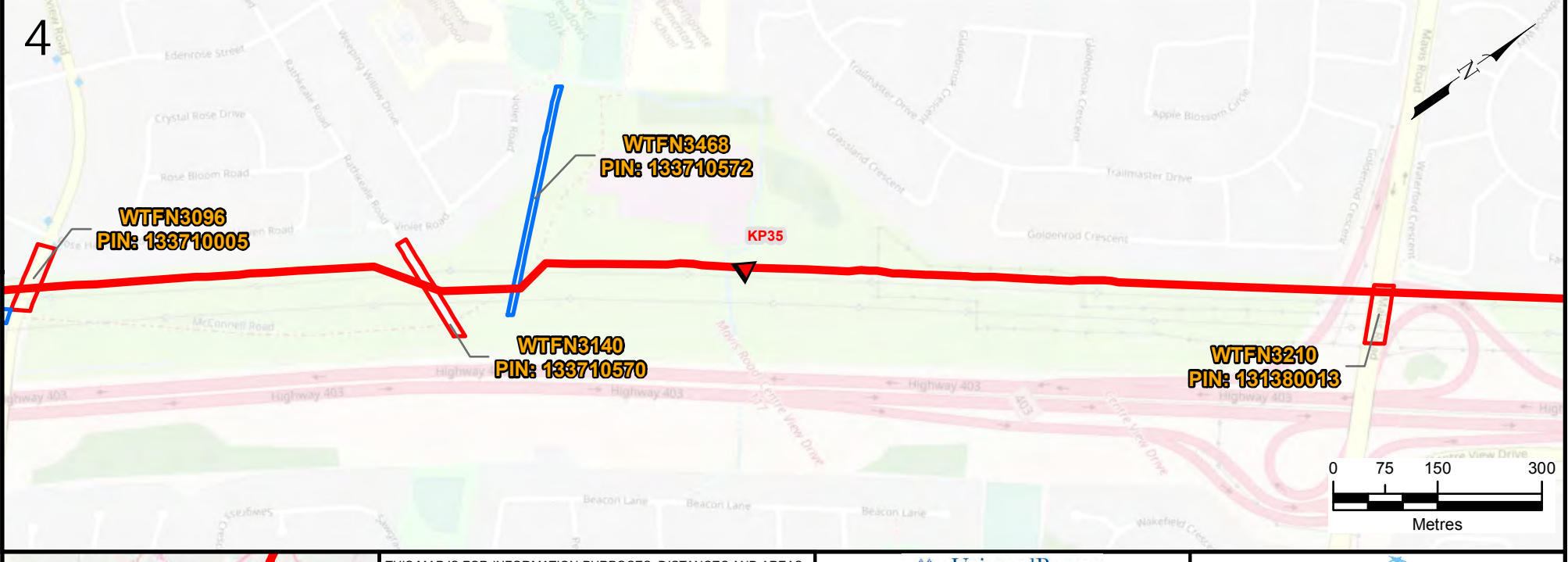
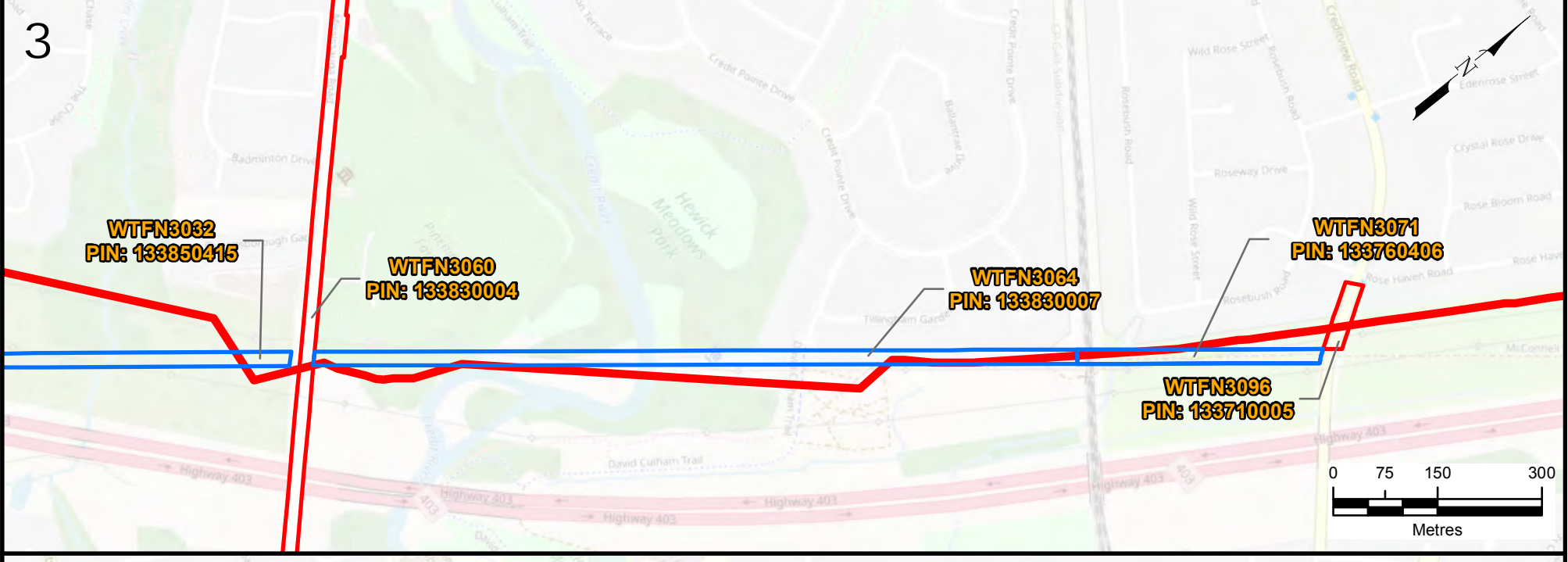
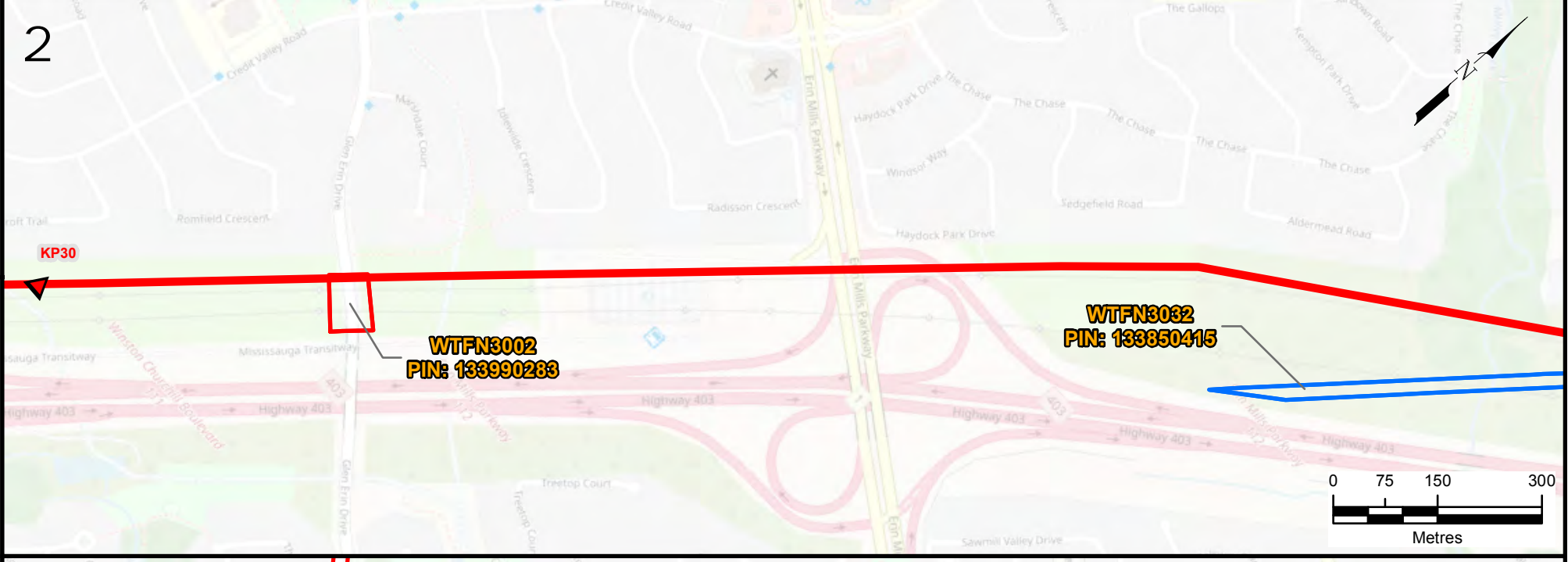
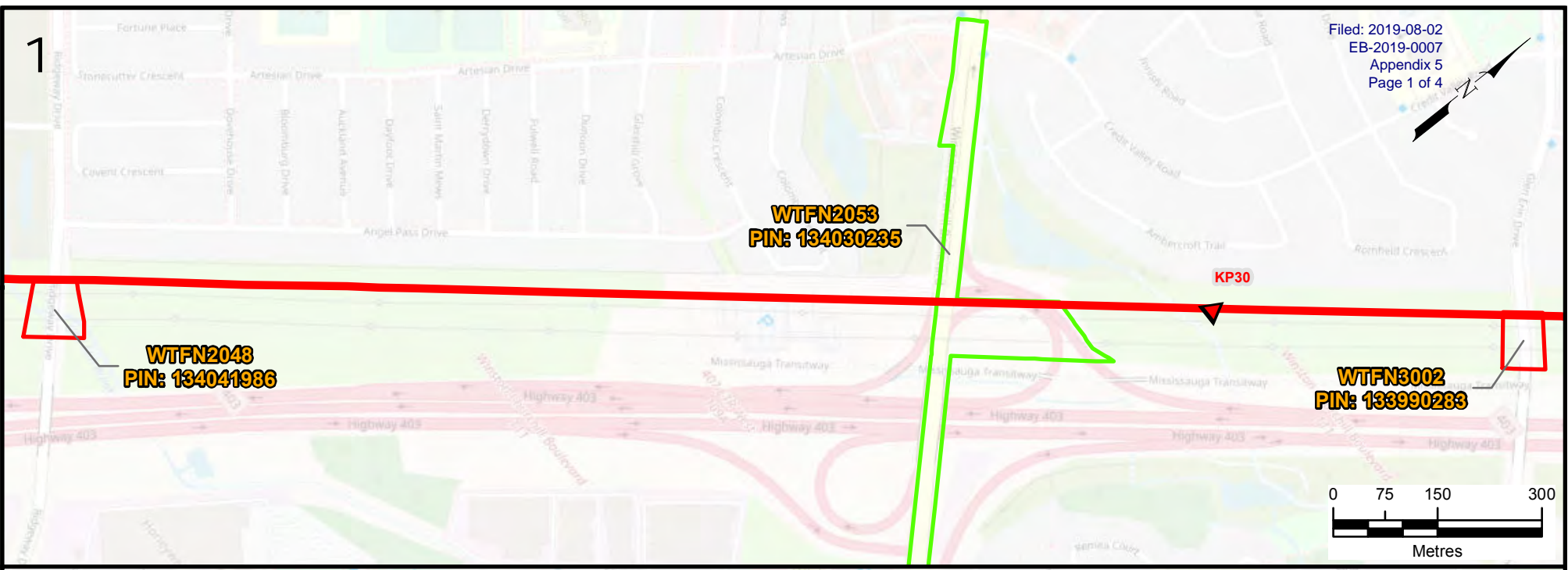


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Legend

- Proposed Pipeline
- Public Road
- Surplus Lands

A Subsidiary of Hursting Ingalls Industries		WATERDOWN TO FINCH PROJECT CITY OF MISSISSAUGA PROPOSED TEMPORARY WORKSPACE PARCEL REFERENCE MAP	
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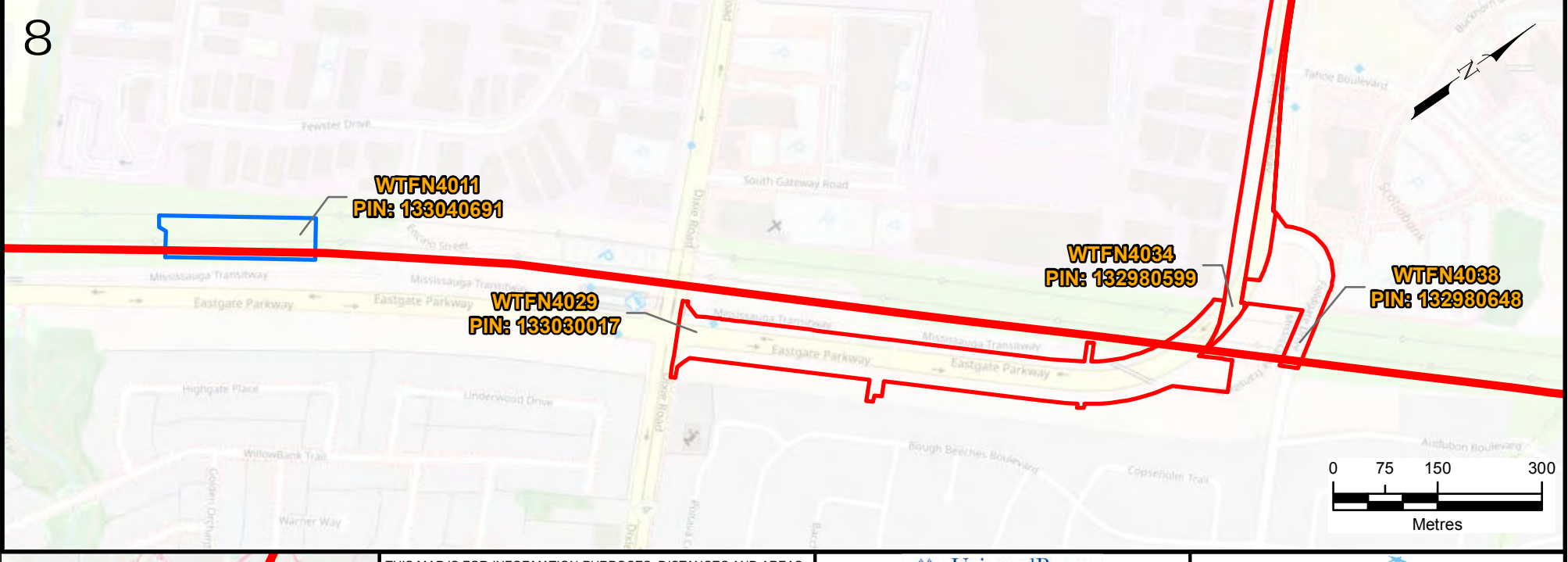
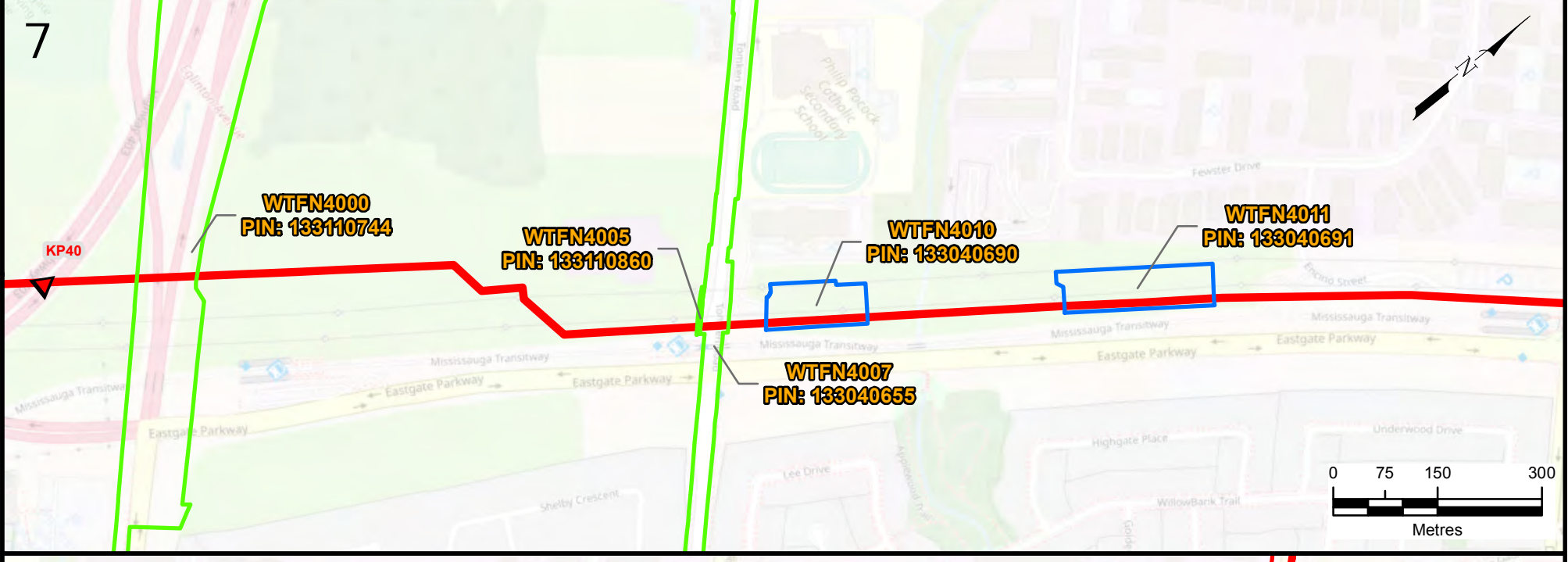
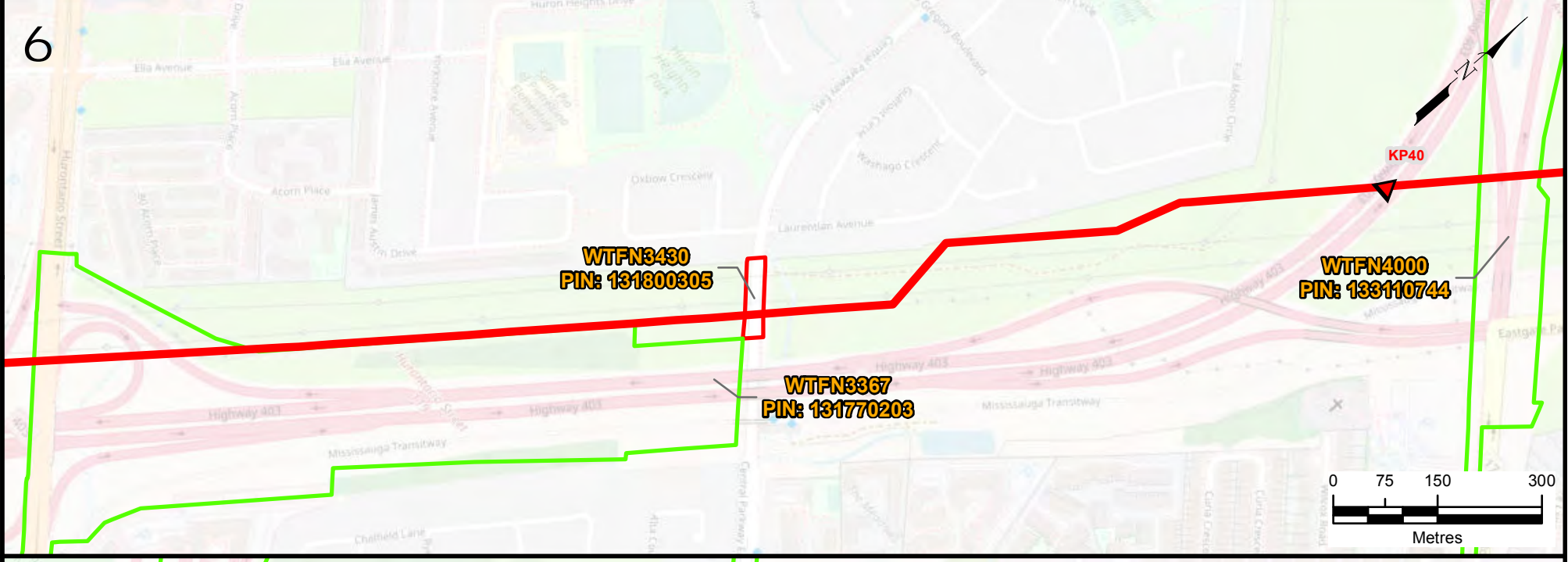
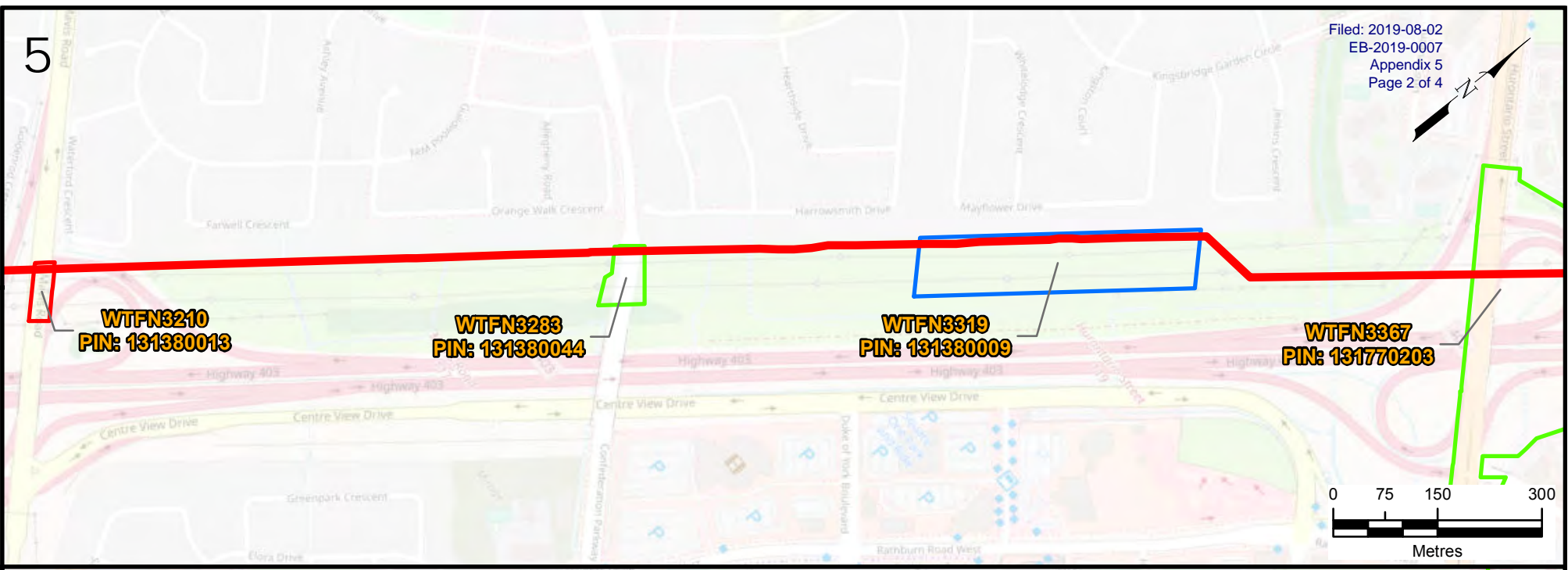
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Legend

- Proposed Pipeline
- MTO Jurisdiction
- Public Road
- Surplus Lands

3		ISSUE FOR INFORMATION	08/02/2019	JAW
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WATERDOWN TO FINCH PROJECT	PROPOSED PIPELINE PARCEL	REFERENCE MAP
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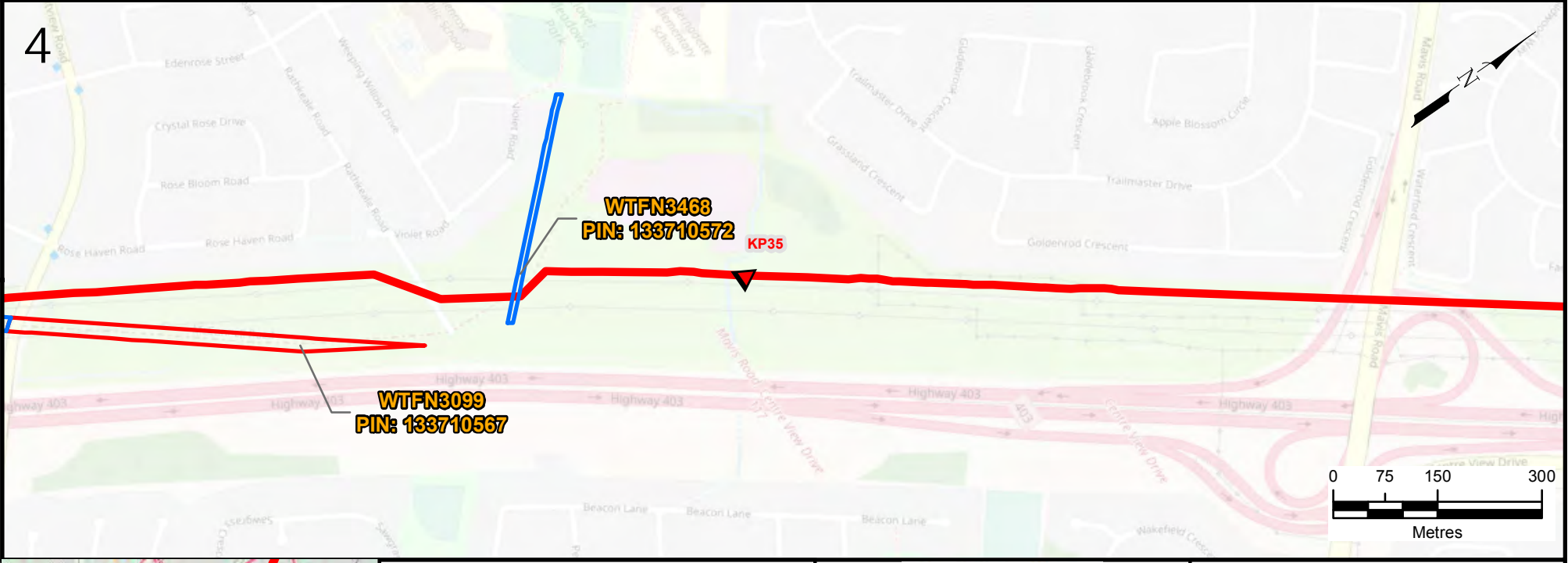
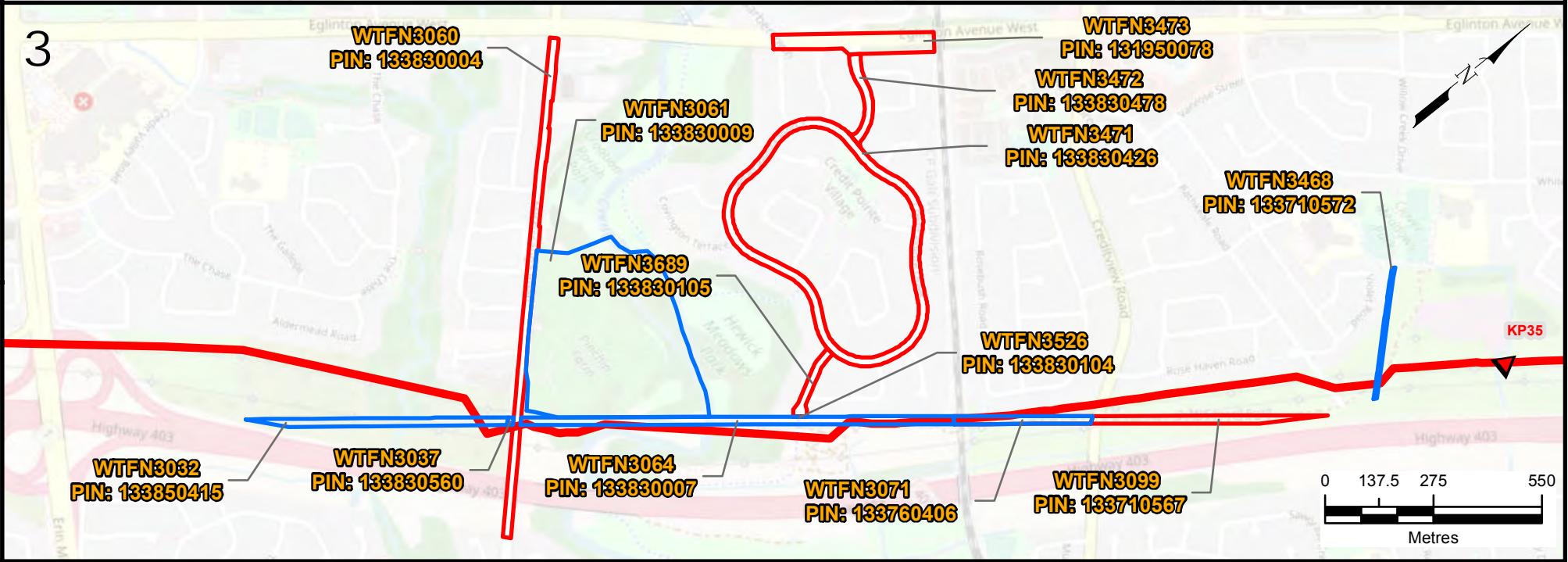
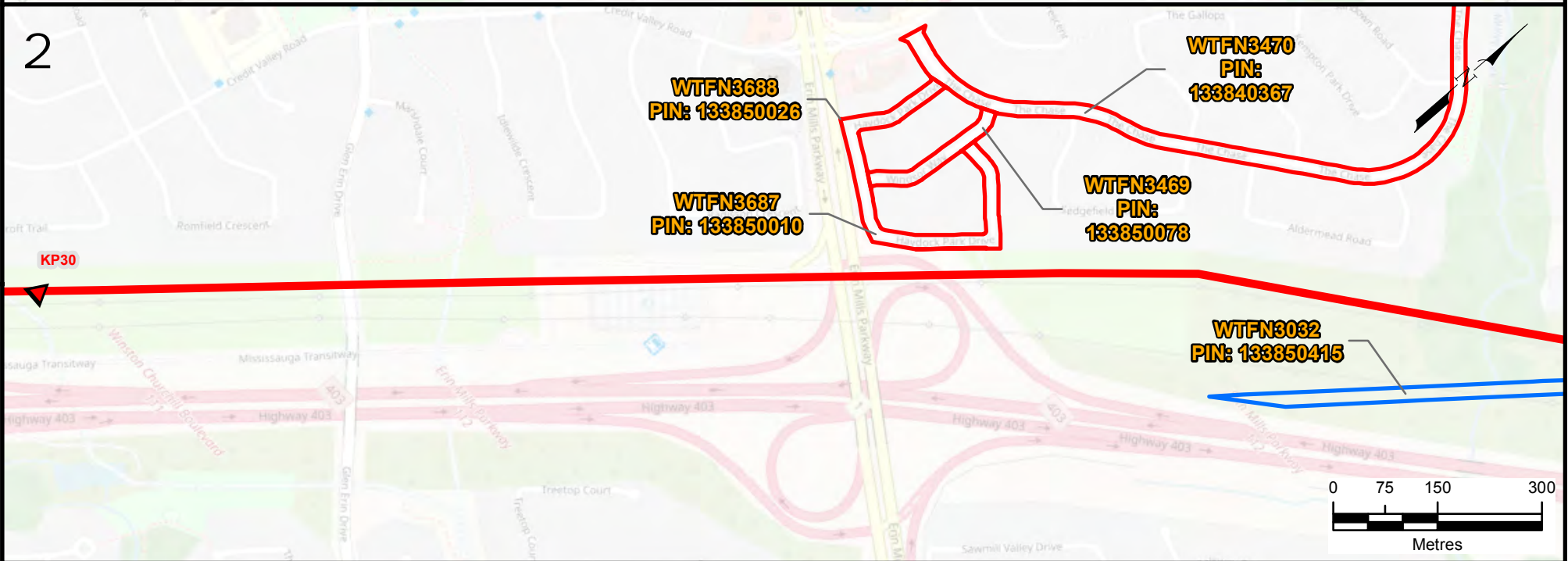
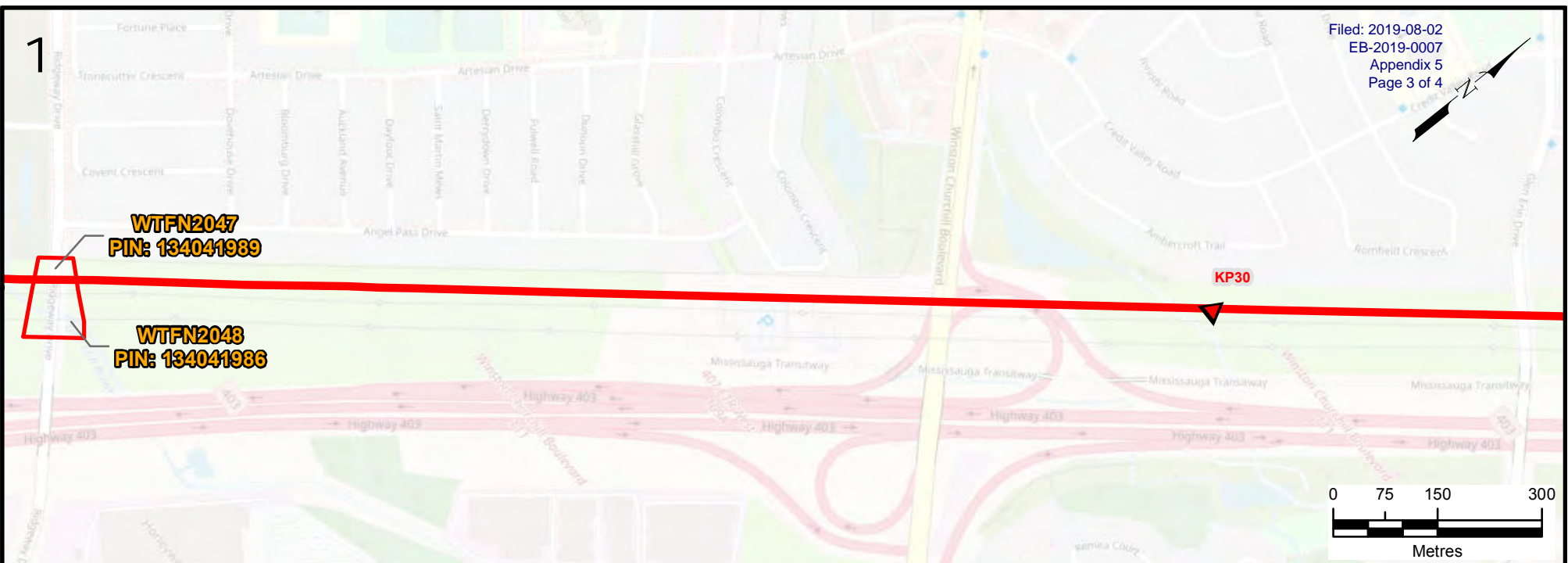
Legend

- Proposed Pipeline
- MTO Jurisdiction
- Public Road
- Surplus Lands

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2	ISSUE FOR INFORMATION 08/02/2019 JAW
1	ISSUE FOR INFORMATION 07/25/2019 JAW
0	ISSUE FOR INFORMATION 07/23/2019 JAW
NO	REVISION DATE APPR
SCALE	DATE DRAWN CHECKED APPROVED PROJ. NO. DRAWING NUMBER SHEET
N.T.S.	07/23/2019 JCW HMC JAW 24255 24255-507-MAP-00096 2 OF 2

**WATERDOWN TO FINCH PROJECT
 CITY OF MISSISSAUGA
 PROPOSED PIPELINE PARCEL
 REFERENCE MAP**





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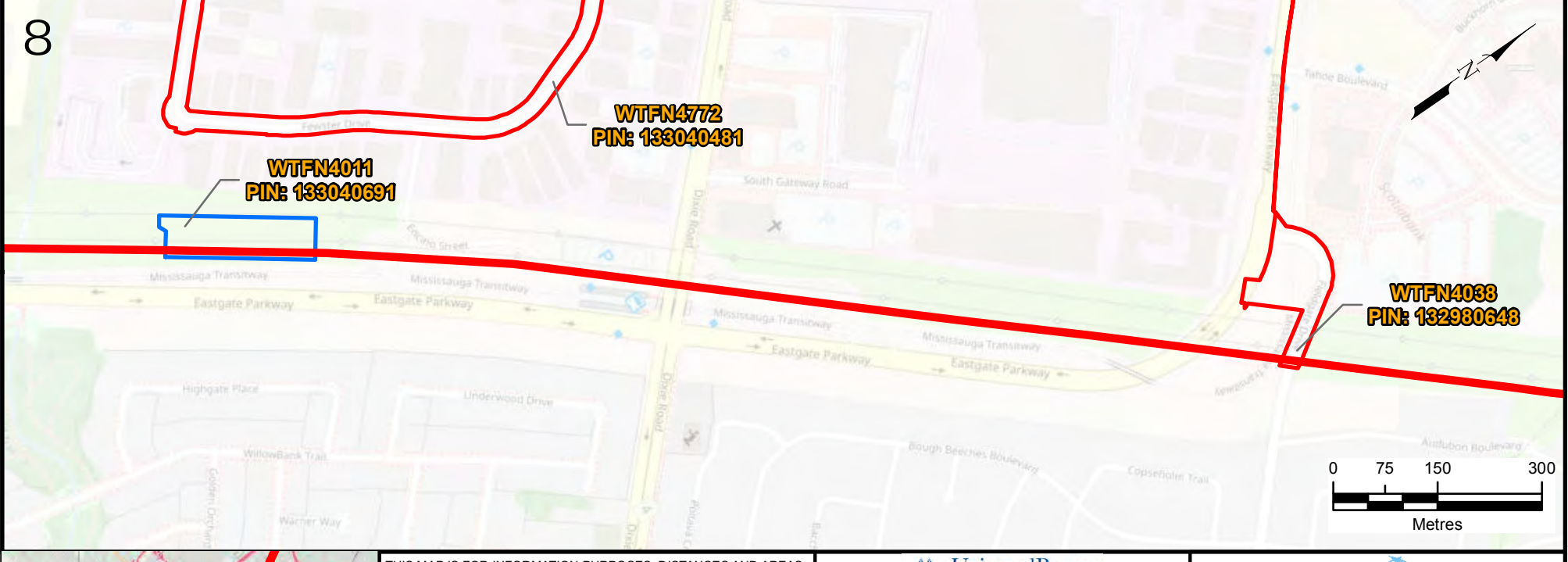
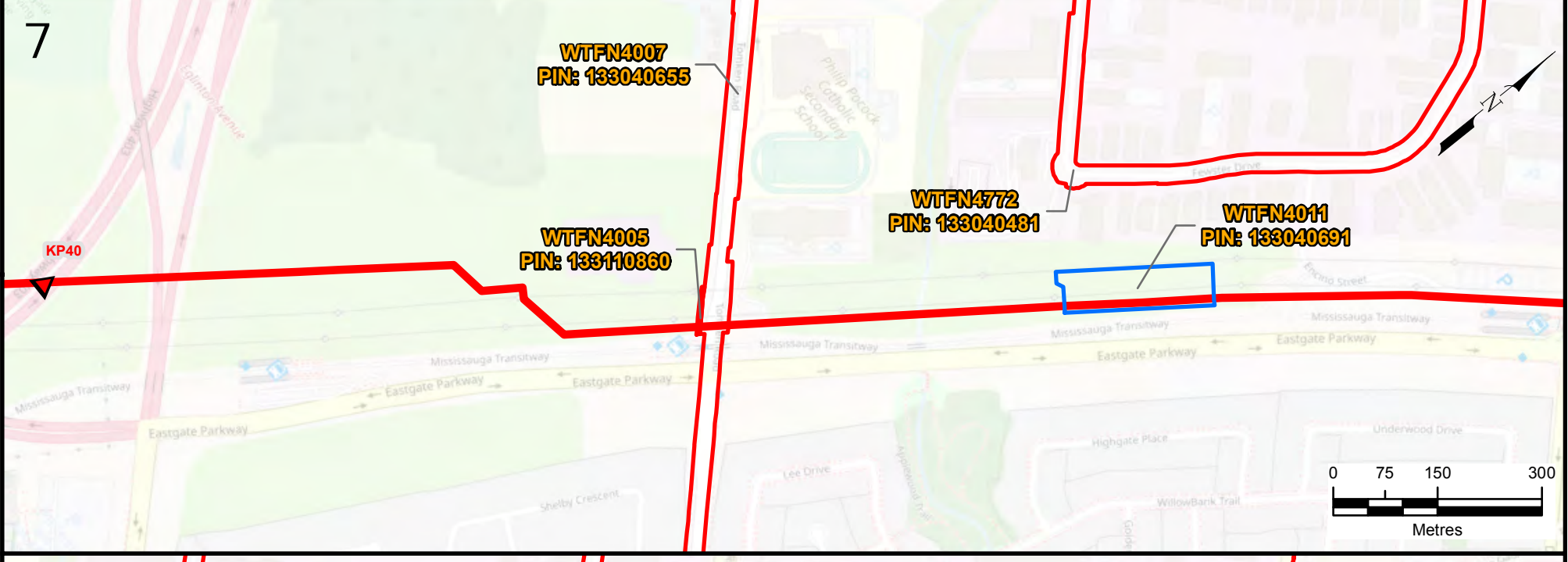
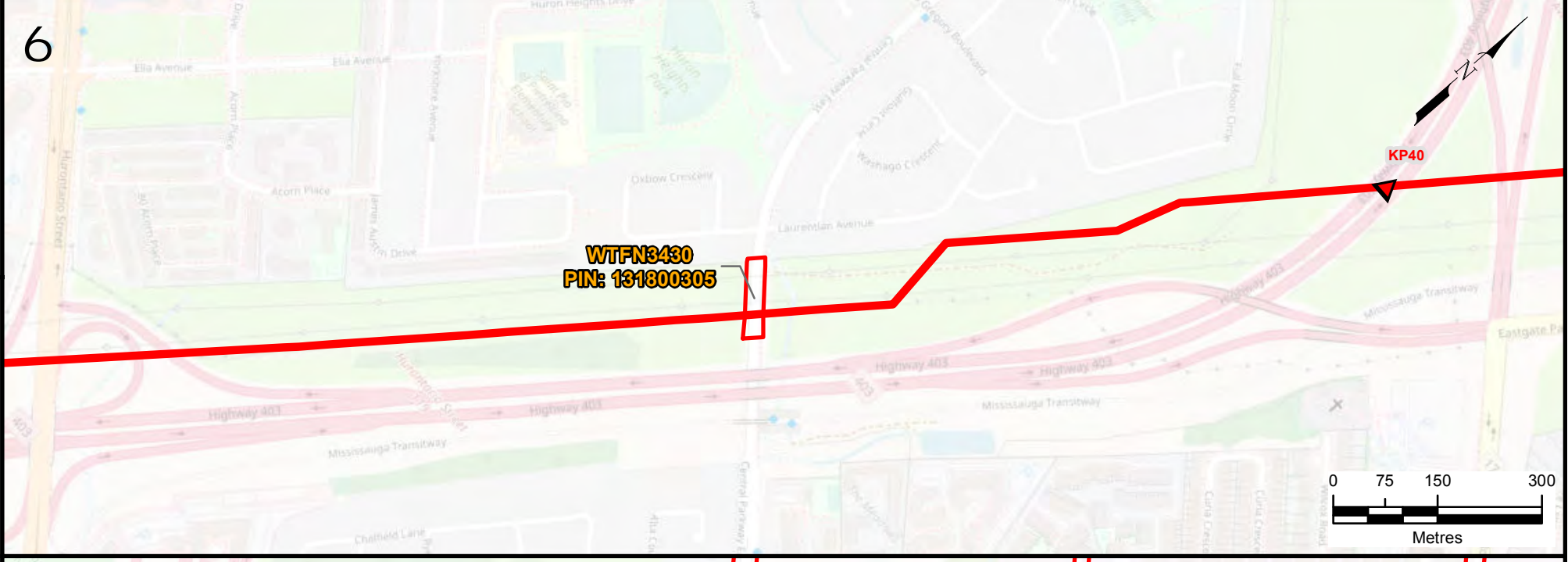
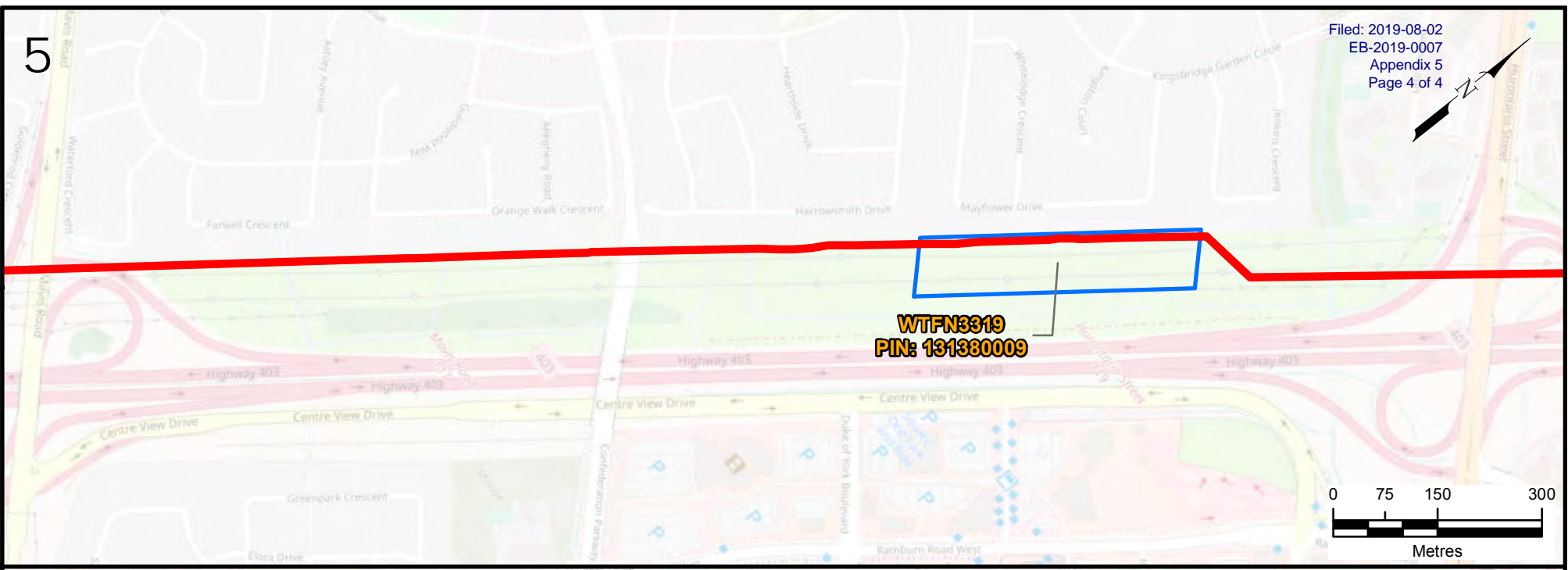
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Legend

- Proposed Pipeline
- Public Road
- Surplus Lands

Universal Pegasus INTERNATIONAL <small>A Subsidiary of Hursington Ingalls Industries</small>		Imperial					
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WATERDOWN TO FINCH PROJECT
CITY OF MISSISSAUGA
PROPOSED TEMPORARY WORKSPACE
PARCEL REFERENCE MAP



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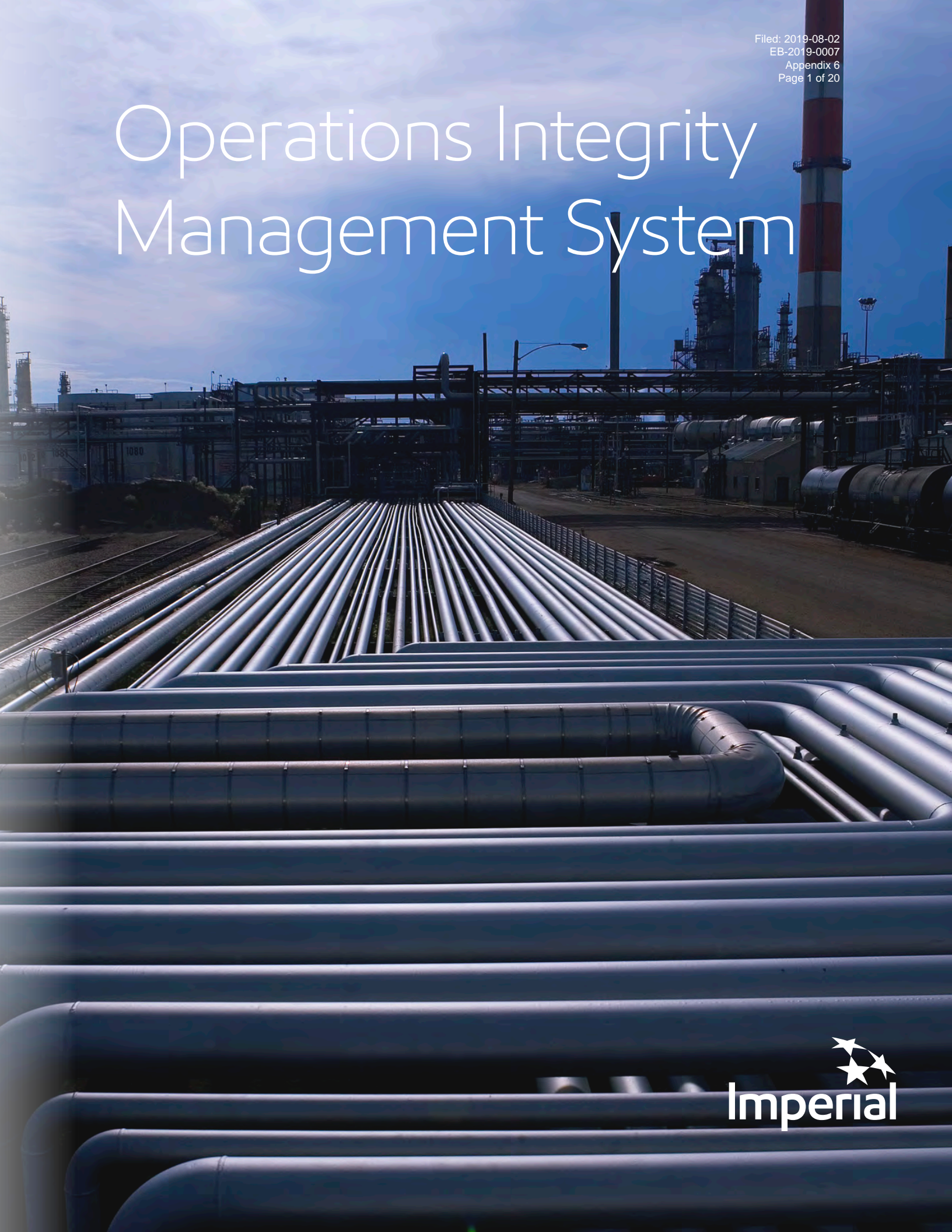
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- Proposed Pipeline
- Public Road
- Surplus Lands

A Subsidiary of Hursting Ingalls Industries		WATERDOWN TO FINCH PROJECT CITY OF MISSISSAUGA PROPOSED TEMPORARY WORKSPACE PARCEL REFERENCE MAP	
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APPENDIX 6 IMPERIAL OPERATIONS INTEGRITY MANAGEMENT SYSTEM

Operations Integrity Management System





Imperial remains steadfast in its commitment to excellence in safety, security, health and environmental (SSH&E) performance, referred to collectively as operations integrity.

We recognize that while we play a vital role in providing the energy the world relies on, many of our operations and products present potential risks to people and to the environment.

Clearly identifying these risks is intrinsic in our business, and we believe the best way to meet our commitment to excellence in SSH&E performance is through a capable, committed workforce, as well as practices designed to enable safe, secure and environmentally responsible operations. We accomplish this through clearly defined policies and practices, and with rigorously applied management systems designed to deliver results.

The Operations Integrity Management System (OIMS) represents the foundation of our commitment to managing SSH&E risk and achieving excellence in performance. Since the inception of OIMS in 1992, our SSH&E performance has improved substantially. Imperial's safety performance is among the best in Canadian industry, and we have been cited by Lloyd's Register Quality Assurance for "being among the leaders in the extent to which environmental management considerations have been integrated into our ongoing business practices."

All operating organizations are required to maintain the systems and practices needed to conform to the expectations described in the OIMS framework. This common framework for all of Imperial encourages the sharing of best practices and assists us as an organization in meeting our SSH&E objectives.

To drive continuous improvement, the framework is periodically updated. This revision strengthens framework expectations with respect to leadership, process safety, environmental performance, and the assessment of OIMS effectiveness and is intended to:

- Reinforce our belief that all safety, health and environmental incidents are preventable.
- Promote and maintain a work environment in which each of us accepts personal responsibility for our own safety and that of our colleagues, and in which everyone actively intervenes to ensure the safety, security and wellness of others.

We believe these enhancements will help drive Imperial ever closer to our vision of a workplace where *nobody gets hurt*, where *security is everybody's business*, and where our environmental performance meets our expectations to *Protect tomorrow. Today.*

Rich Kruger

Chairman, president and chief executive officer



Imperial is committed to conducting business in a manner that is compatible with the environmental and economic needs of the communities in which we operate, and that protects the safety, security, and health of our employees, those involved with our operations, our customers, and the public. These commitments are documented in our safety, security, health, environmental, and product safety policies. These policies are put into practice through a disciplined management framework called the Operations Integrity Management System (OIMS).

Imperial's OIMS framework establishes common expectations for addressing risks inherent in our business. The term operations integrity (OI) is used by Imperial to address all aspects of its business that can impact personnel and process safety, security, health, and environmental performance.



The OIMS framework includes 11 elements. Each element contains an underlying principle and a set of expectations. The OIMS framework also includes the characteristics of, and processes for, evaluating and implementing OI management systems.

Application of the OIMS framework is required across all of Imperial, with particular emphasis on design, construction and operations. Management is responsible for ensuring that management systems satisfying the framework are in place. The scope, priority and pace of management system implementation should be consistent with the risks associated with the business.



OIMS 11 elements



Element 1: management leadership, commitment and accountability

Management establishes policy, provides perspective, sets expectations and provides the resources for successful operations. Assurance of operations integrity requires management leadership and commitment visible to the organization, and accountability at all levels.

1.1 Systems for operations integrity management are established, communicated and supported at every level in the organization.

1.2 Managers and supervisors credibly demonstrate commitment and personal accountability for operations integrity, promote an open and trusting environment, and understand how their behaviours impact others. Commitment is demonstrated through active and visible participation.

1.3 Manager and supervisor knowledge and skills, including leadership skills and behaviours, are developed to effectively apply operations integrity management tools and systems.

1.4 Management establishes the scope, priority and pace for system implementation and improvement, considering the complexity and risks involved with their operations and products.

1.5 Roles, responsibilities, authorities and accountabilities within the systems are known and exercised.

1.6 Clear goals and objectives are established for the systems, and performance is evaluated against these goals and objectives.

1.7 Expectations are translated into procedures and practices.

1.8 The workforce is actively engaged in the operations integrity process, and relevant learnings are shared across the organization.

1.9 Performance is evaluated, and the degree to which expectations are met is assessed. The results are stewarded to corporate management.

1.10 Managers responsible for businesses operated by others (OBO) communicate OIMS principles to the operator and encourage the adoption of OIMS or similar systems.

Element 2: risk assessment and management

Comprehensive risk assessments can reduce safety, health, environmental and security risks and mitigate the consequences of incidents by providing essential information for decision-making.

2.1 Risk is managed by identifying hazards, assessing consequences and probabilities, and evaluating and implementing prevention and mitigation measures.

2.2 Risk assessments are conducted for ongoing operations, for projects and for products in order to identify and address potential hazards to personnel, facilities, the public and the environment.

2.3 Periodic risk assessments are performed by qualified personnel, including expertise from outside the immediate unit, as appropriate.

2.4 Risk assessments are updated at specified intervals and as changes occur.

2.5 Assessed risks are addressed by specified levels of management appropriate to the nature and magnitude of the risk, and decisions are clearly documented.

2.6 A follow-up process is in place to ensure that risk management decisions are implemented.



Element 3: facilities design and construction

Inherent safety and security can be enhanced, and risk to health and the environment minimized, by using sound standards, procedures and management systems for facility design, construction and startup activities.

3.1 Project management procedures are documented, well understood and executed by qualified personnel.

3.2 Criteria are established and procedures are in place for conducting and documenting risk assessments at specific project stages to ensure that operations integrity objectives are met.

3.3 The design and construction of new or modified facilities use approved design practices and standards that:

- Meet or exceed applicable regulatory requirements.
- Embody responsible requirements where regulations are not adequately protective.
- Address other important operations integrity considerations, including environmental aspects and human factors.

3.4 Deviation from approved design practices and standards, or from the approved design, is permitted only after review and approval by the designated authority, and after the rationale for the decision is documented.

3.5 A process is in place for evaluating the application of new or updated standards with operations integrity implications for existing facilities.

3.6 Quality-assurance processes are in place, which ensure that facilities and materials received meet design specifications and that construction is in accordance with the applicable standards.

3.7 A pre-startup review is performed and documented to confirm that:

- Construction is in accordance with specifications.
- Operations integrity measures are in place.
- Emergency, operations and maintenance procedures are in place and adequate.
- Risk-management recommendations have been addressed and required actions taken.
- Training of personnel has been accomplished.
- Regulatory and permit requirements are met.



Element 4: information/ documentation

Accurate information on the configuration and capabilities of processes and facilities, properties of products and materials handled, potential operations integrity hazards, and regulatory requirements is essential to assess and manage risk.

4.1 Drawings, pertinent records, and documentation necessary for sound design, operation, inspection, and maintenance of facilities are identified, accessible, accurate and appropriately safeguarded.

4.2 Information on the potential hazards of materials involved in operations is kept current and accessible.

4.3 Information on potential hazards associated with products, and guidance to enable proper handling, use and disposal, are documented and communicated.

4.4 Information on applicable laws and regulations, licenses, permits, codes, standards and practices is documented and kept current.

Element 5: personnel and training

Control of operations depends upon people. Achieving operations integrity requires the appropriate screening, careful selection and placement, ongoing assessment and proper training of employees, and the implementation of appropriate operations integrity programs.

5.1 A process is in place for screening, selection, placement and ongoing assessment of the qualifications and abilities of employees to meet specified job requirements.

5.2 Criteria are in place to ensure that necessary levels of individual and collective experience and knowledge are maintained and are carefully considered when personnel changes are made.

5.3 Initial, ongoing and periodic refresher training is provided to meet job and legal requirements and to ensure understanding of the proper protective measures to mitigate potential operations integrity hazards. This training includes:

- Assessment of employee knowledge and skills relative to requirements.
- Training documentation.
- Assessment of training effectiveness.

5.4 The assessment and documentation of, and feedback on, employee performance address operations integrity elements.

5.5 Behaviour-based processes for reducing risks of incidents, including personnel safety, process safety, security, and environmental considerations, are in place. It is expected that:

- Employees and contractors consistently recognize and proactively mitigate operational, procedural, and physical hazards.
- Employees and contractors proactively and routinely identify and eliminate their at-risk behaviors and those of their co-workers.
- Human factors, workforce engagement, and leadership behaviors are addressed.
- Behaviours, at-risk conditions, and other precursors that can lead to incidents are recorded, analyzed, and addressed.

5.6 A process is in place to identify and evaluate health risks related to operations that potentially affect employees, contractors, or the public. Based upon assessed risk:

- Exposures are monitored.
- Proper protective and preventive measures are implemented.
- Early detection and diagnosis are provided.
- Pertinent health data is recorded and reviewed.
- Medical fitness for work is determined, as appropriate.



Element 6: operations and maintenance

Operation of facilities within established parameters and according to regulations is essential. Doing so requires effective procedures, structured inspection and maintenance programs, reliable operations integrity critical equipment, and qualified personnel who consistently execute these procedures and practices.

6.1 Operating, maintenance, and inspection procedures are developed, implemented, and consistently used. These procedures include, where appropriate:

- Special procedures for activities with potentially higher risk.
- Operating envelope considerations.
- Regulatory and environmental aspects considerations.
- Human factors considerations.

Procedures are updated at specified intervals and when changes are made.

6.2 A work permit process incorporates checks and authorizations that are consistent with mechanical and operational risks.

6.3 Critical equipment is identified and tested, and it undergoes preventive maintenance.

6.4 The temporary disarming, deactivation, or unavailability of critical equipment is managed.

6.5 Mechanical integrity programs are in place and stewarded to assure the testing, inspection, and maintenance of equipment.

6.6 Interfaces between operations are assessed, and procedures are in place to manage identified risks.

6.7 Environmental aspects are addressed and controlled, consistent with policy, regulatory requirements and business plans. Environmental business planning is conducted and integrated into business plans.

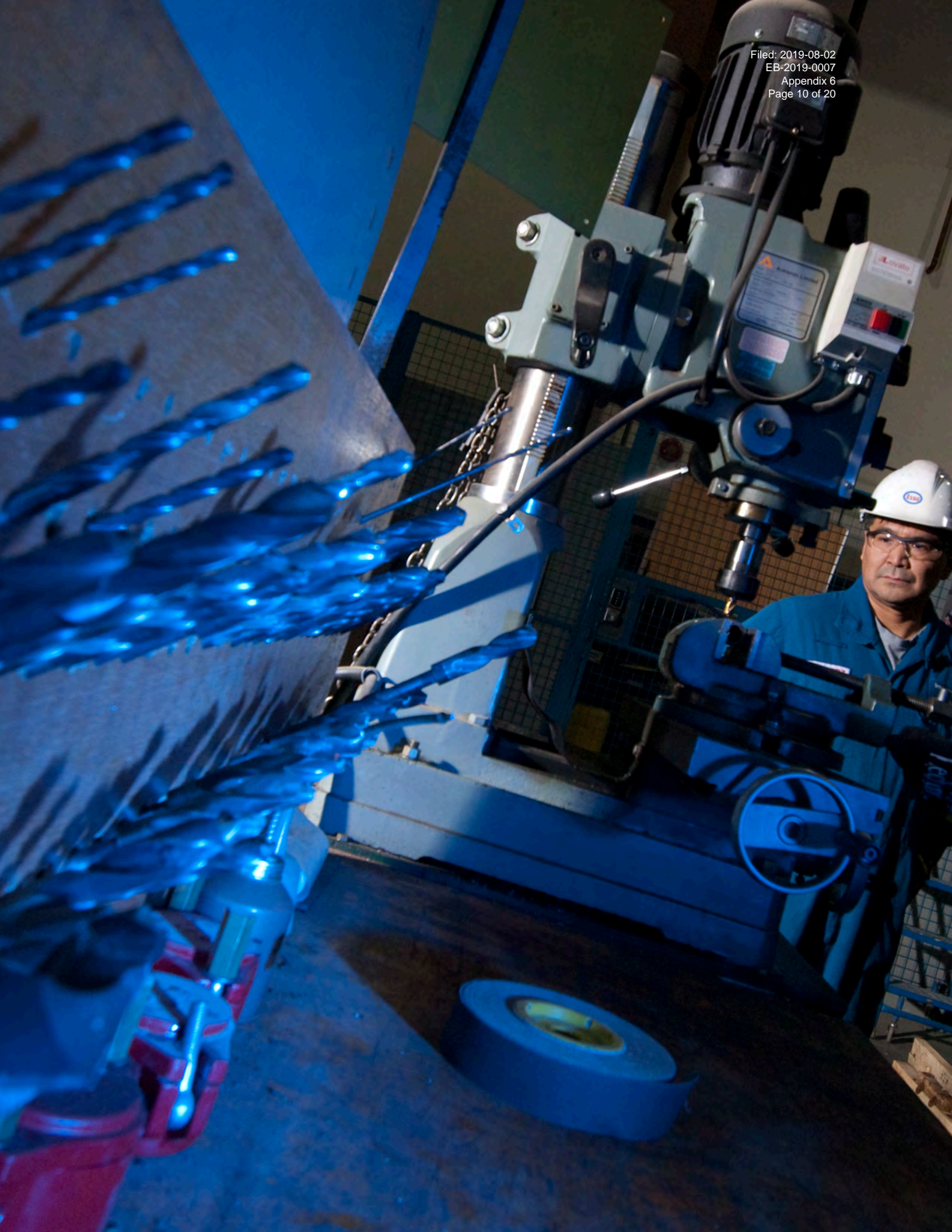
6.8 Environmental performance, including emissions, discharges, and wastes, is tracked and stewarded to meet performance goals.

6.9 Applicable laws, regulations, permits and other governmental requirements are anticipated and met, and the resulting operating requirements are documented and communicated to those affected. Compliance is periodically verified.

6.10 Proper long-term shutdown or abandonment of facilities is planned and managed.

6.11 Quality-assurance processes are in place, ensuring that facilities and materials received meet designated specifications.





Element 7: management of change

Changes in operations, procedures, site standards, facilities, or organizations must be evaluated and managed to ensure that operations integrity risks arising from these changes remain at an acceptable level.

7.1 A process is in place for the management of both temporary and permanent changes.

7.2 The process for managing change addresses:

- Authority for approval of changes.
- Analysis of operations integrity implications.
- Compliance with regulations and approved standards.
- Acquisition of needed permits.
- Documentation, including reason for change.
- Communication of risks associated with the change and required mitigation measures.
- Time limitations.
- Training.

7.3 Temporary changes do not exceed initial authorization for scope or time without review and approval.



Element 8: third-party services

Third parties doing work on the company's behalf impact its operations and its reputation. It is essential that they perform in a manner that is consistent and compatible with Imperial's policies and business objectives.

8.1 Third-party services are evaluated and selected using criteria that include an assessment of capabilities to perform work in a safe and environmentally sound manner.

8.2 Third-party performance requirements are defined and communicated. They include:

- Responsibility for providing personnel appropriately screened, trained, qualified and able to perform specified duties.
- A process for self-monitoring and stewardship.

8.3 Interfaces between organizations providing and receiving services are effectively managed.

8.4 Third-party performance, including leadership, is monitored and assessed, feedback is provided, and deficiencies are corrected.



Element 9: incident investigation and analysis

Effective incident investigation, reporting and follow-up are necessary to achieve operations integrity. They provide the opportunity to learn from reported incidents and to use the information to take corrective action and prevent recurrence.

9.1 A process is in place for reporting, investigating, analyzing and documenting actual safety, security, health, environmental and regulatory compliance incidents and significant near misses.

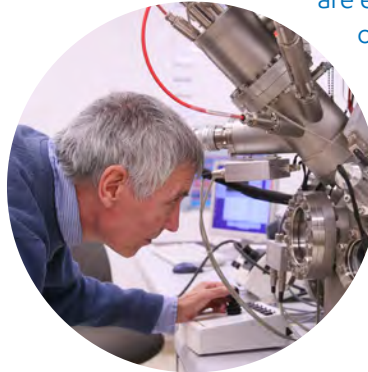
9.2 Procedures are in place for the law department to investigate, analyze and advise on incidents when necessary.

9.3 Procedures exist for actual incidents and near misses, other than those investigated by the law department, which:

- Provide for timely investigation.
- Consider potential consequences in determining the level of investigation.
- Identify root causes and contributing factors.
- Determine and ensure implementation of actions needed to prevent recurrence of this and related incidents.
- Reflect legal input.

9.4 Findings are retained, periodically analyzed to determine where improvements to practices, standards, procedures or management systems are warranted, and used as a basis for improvement.

9.5 A process is in place to share lessons learned from actual incidents and near misses among Imperial's operating units and its affiliates, and to interact with others as appropriate to facilitate improvements in performance.



Element 10: community awareness and emergency preparedness

Effective management of stakeholder relationships is important to enhance the trust and confidence of the communities where we operate. Emergency planning and preparedness are essential to ensure that, in the event of an incident, all necessary actions are taken for the protection of the public, the environment and company personnel and assets.

10.1 Community expectations and concerns about our operations, including those of the workforce, are sought, recognized, and addressed in a timely manner.

10.2 Emergency-preparedness, response, and business continuity plans are documented, accessible and clearly communicated. The plans, based on assessed operations integrity risks, include:

- Response actions that address significant incident scenarios.
- Organizational structure, responsibilities and authorities.
- Internal and external communications procedures.
- Procedures for accessing personnel and equipment resources.
- Procedures for accessing essential operations integrity information.
- Procedures for interfacing with other company and external emergency response organizations.
- Process for periodic updates.

10.3 Equipment, facilities and trained personnel needed for emergency response are defined and readily available.

10.4 Simulations and drills are periodically conducted, which include consideration of external communications and involvement. Learnings are identified and addressed.

Element 11: operations integrity assessment and improvement

Assessment of the degree to which expectations are met is essential to improve operations integrity and maintain accountability.

11.1 Operations are assessed at predetermined frequencies to establish the degree to which the operations integrity expectations are met.

11.2 The frequency and scope of assessments reflect the complexity of the operation, level of risk and performance history.

11.3 Assessments are conducted by multidisciplinary teams, including expertise from outside the immediate unit.

11.4 Findings from assessments are resolved and documented.

11.5 The effectiveness of the assessment process is reviewed periodically, and findings are used to make improvements.





The characteristics of management systems

Each operating unit must have in place properly designed and documented management systems that address all the expectations set out in the OIMS framework. Management systems put in place to meet OIMS expectations must incorporate the following five characteristics to be effective. It is important for all five characteristics to be documented.

Scope and objectives

Scope defines the system's boundaries and identifies interfaces with other systems, organizations and facilities. Objectives clearly define the system's purpose and expected results.

Processes and procedures

Processes address the steps that describe what the system does and how it functions. Procedures address the key tasks required by a process.

Responsible and accountable resources

Approval authorities, experience and training requirements that qualify people to carry out their roles and responsibilities are specified for both implementation and execution of the system.

Verification and measurement

A system must be checked to see whether it is functioning as designed and is achieving its stated purpose. There are two components. Verification determines that processes and procedures are functioning and being effectively executed. Measurement confirms the quality of system processes and determines that system objectives and results are being achieved.

Feedback and improvement mechanisms

These mechanisms help ensure that actions are taken to continuously improve the system. They use findings from assessments, and from verification and measurement activities, to enhance system suitability, capability and effectiveness.



Evaluation

Ongoing evaluation is essential to make sure that the expectations in the framework are being met. OIMS employs internal and external assessment processes to gauge the degree to which the expectations are being satisfied. Such evaluations provide the information needed to further improve both performance and supportive management systems.

The assessment process focuses on evaluation of management systems. Two system dimensions are included in the evaluation:

1. System status

- Extent to which the five characteristics of an Operations Integrity Management System are built into the system design and properly documented.
- Extent of deployment, including communication, training and establishment of measurement, verification and feedback processes.

2. System effectiveness

- Extent of conformance to system requirements and documentation.
- Quality of system execution.
- How well the system is working and whether the stated objectives are being achieved.



**Protect Tomorrow.
Today.**

OIMS ratings

System status and effectiveness are both appraised during assessments. System status receives a qualitative evaluation of either 'Meets criteria' or 'Needs improvement'. System effectiveness receives a quantitative rating on a scale of 1 to 4, with 4 being the highest level.

The overall assessable unit effectiveness rating is based on the average of the individual system effectiveness ratings.

Assessment frequency

External assessments are conducted every three to five years, with the frequency within that range determined by the operations integrity performance of the assessable unit and the level of risk in the unit's operation.

Internal assessments are conducted annually in the intervening years. Systems judged by functional business unit management to have the greatest operations integrity impact for each assessable unit are assessed annually. Other OI systems are assessed at approximately the midpoint of the interval between external OI assessments.



Responsibilities for management above the assessable unit

The elements and expectations of the OIMS framework are intended to provide guidance for operations integrity management systems on an assessable unit (AU) basis. However, some aspects of OI management require oversight and support above the level of the AU. OIMS responsibilities for above the AU system(s) and procedures should be in place to address these areas where applicable. The following guidelines address the processes that provide oversight and support to the AU systems and procedures.

Management leadership, commitment and accountability

- Demonstrate commitment to and active engagement in OI activities across relevant areas of responsibility, including participation in OIMS assessments and provision of sufficient resources to meet OI requirements.
- Ensure functional management systems address OIMS expectations and functional guidelines.
- Establish, communicate, and steward assessable unit SSH&E performance and improvement goals across the business; recognize outstanding results/accomplishments.
- Establish and maintain processes to collect and report accurate and timely SSH&E data.
- Communicate expectations for and monitor progress with respect to the implementation of OIMS for operations new to Imperial.

- Managers responsible for businesses operated by others (OBOs), that are not included in an assessable unit, communicate OIMS principles to the operator and encourage the adoption of OIMS or similar systems and monitor implementation.

Risk assessment and management

- Monitor the status of the risk profile for the function and associated mitigation activities.

Facilities design and construction

- Ensure there are responsible minimum standards for facility design and construction, including where regulatory requirements are not adequately protective.



Personnel and training

- Ensure processes are in place to maintain competencies important for operations integrity.

Operations and maintenance

- Monitor the execution of mechanical integrity assurance programs.
- Ensure processes are in place for appropriate regulatory analysis, interpretation and translation.
- Ensure the adequacy of regulatory compliance assurance processes.
- Monitor the status of compliance with regulations and responsible standards.
- Direct environmental business planning and oversee implementation and stewardship.

Management of change

- Ensure operations integrity implications of organizational changes are evaluated and addressed.

Incident investigation and analysis

- Ensure processes are in place for addressing and sharing learnings from company and industry incidents.

Community awareness and emergency preparedness

- Ensure processes are in place to sustain emergency preparedness, response and business continuity for events requiring resources above the assessable unit.

Operations integrity assessment and improvement

- Ensure processes are in place to analyze individual and collective assessment results.
- Monitor the status of assessment follow-up and closure.
- Ensure processes are in place to sustain the effectiveness of assessments, including a review of assessable unit size and approaches (e.g., focus areas, duration, coverage, frequency).
- Periodically evaluate conformance with OIMS responsibilities for above the assessable unit guidelines to ensure intended results are achieved.





APPENDIX 7 SARNIA PRODUCTS PIPELINE: INVENTORY OF EMERGENCY RESPONSE EQUIPMENT

TITLE **Imperial Facility - Emergency Response Plan**
SECTION 09: Appendices
SUBJECT 07: Sarnia Products Pipeline (SPPL) «Inventory of ER Equipment»

SUMMARY

As specified in ERP-07-03: Team Preparedness: Facility Emergency Response Equipment, the Facility ER equipment (i.e. usually oil spill related equipment) has been standardized for most Facilities. In some cases, additional equipment may be required based on site-specific needs. This section lists this type of equipment. Equipment that is integrally Facility designed ER equipment (i.e. alarms, fire systems, emergency shutdowns, etc), is not covered in this listing but is covered under the PDM standard operating practices manual.

This site ER Equipment inventory list shall be checked quarterly for equipment availability and operability, or after each use, in accordance with PDM 3-24-01: Safety & Environmental – ER Equipment: Equipment Inspection. For the location of the site equipment, reference can be made to the site drawing found in ERP-09-09. Applicable equipment listed in this section could include;

- Pipeline Facility «Specific off-site ER Equipment» (required for every Pipeline)
- Terminal Facility «ER Equipment Standard»
- Terminal Facility «Specific additional site ER Equipment» (may be required or not, depending on site risks, requirements and operating environment)
- Terminal Facility «Specific Marine ER Equipment» (required at Marine Facilities only - dock spill response)

FACILITY SPECIFIC ER EQUIPMENT LISTS

Pipeline Facility

Imperial Oil has a number of emergency response equipment resources available for use. To respond to all pipeline emergencies in southern Ontario, Canada Fuels Operations has stored its equipment in the [warehouse](#) at Waterdown. The [warehouse](#) contains various oil spill response equipment primarily intended for land based first hour incident response such as pumps, hoses, hand tools, gasoline powered generator, safety and personal protective equipment and is also suitable for smaller shoreline clean-up activities.

The following is a brief summary of the equipment available for use. The specific equipment lists can be found, as specified below.

SPPL WATERDOWN WAREHOUSE

The [warehouse](#) contains various oil spill response equipment primarily intended for land based incident response such as pumps, hoses, hand tools, gasoline powered generator, safety

SECTION 09.07: Appendices
 Sarnia Products Pipeline (SPPL) «Inventory of ER Equipment»

and personal protective equipment. On-Site Equipment List is located in this section. Equipment and maintenance blank forms can be found in the Site Specific Manual.

EMERGENCY EQUIPMENT

First Aid Equipment

<u>Standard</u>	<u>Description</u>	<u>Quantity Observed</u>	<u>Equipment Location</u>
1	First aid kit	1	Warehouse
1	Fire blanket	1	Warehouse
1	Stretcher	1	Warehouse
1	Eye wash station	1	Warehouse

Safety Equipment

<u>Standard</u>	<u>Description</u>	<u>Quantity Observed</u>	<u>Equipment Location</u>
12	No smoking signs	12	Warehouse
4	Life jackets	4	Warehouse
4	Pylons	4	Warehouse
3	Reflective vests	3	Warehouse
4	Nomex coveralls	4	Warehouse
4	Rain suits	4	Warehouse
4	Hard hats with liners	4	Warehouse
12 pr.	Gloves, (chemical)	12	Warehouse
11 pr.	Gloves, (work)	11	Warehouse
4	Rubber boots, (hip)	4	Warehouse
2	Rubber boots, regular	2	Warehouse
4	Reflectors, (owl lites)	4	Warehouse
8	Reflecting arm bands	8	Warehouse
2	Wind socks	2	Warehouse

Fire Equipment

<u>Standard</u>	<u>Description</u>	<u>Quantity Observed</u>	<u>Equipment Location</u>
2	Ansul powder - 5 gal. Pail	2	Warehouse
2	Fire extinguishers - 30 lb.	2	Warehouse
4	Recharge cylinders	4	Warehouse

Leak Clamps

<u>Standard</u>	<u>Description</u>	<u>Quantity Observed</u>	<u>Equipment Location</u>
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SECTION 09.07: Appendices

Sarnia Products Pipeline (SPPL) «Inventory of ER Equipment»

2	Pin hole clamp - 12"	2	Warehouse
2	Pin hole clamp - 10"	2	Warehouse
1	Pin hole clamp - 6"	1	Warehouse
1	Plug rug (box)	1	Warehouse
1	Plidco split sleeves - 4"	1	Warehouse
1	Plidco split sleeves - 6"	1	Warehouse
2	Plidco split sleeves - 8"	2	Warehouse
2	Plidco split sleeves - 10"	2	Warehouse
3	Plidco split sleeves - 12"	3	Warehouse

Emergency Lighting

<u>Standard</u>	<u>Description</u>	<u>Quantity Observed</u>	<u>Equipment Location</u>
1	Generator	1	Warehouse
1	Floodlights - telescopic 2-500 watts	1	Warehouse
2	Lantern - 6 volt	2	Warehouse
2	Extension cord - 30 ft	2	Warehouse
2	Extension cord - 50 ft	2	Warehouse
3	Ground rods	3	Warehouse
2	Ground fault plugs	2	Warehouse

Manuals

Skimmer

<u>Standard</u>	<u>Description</u>	<u>Quantity Observed</u>	<u>Equipment Location</u>
1	Skimmer	1	Warehouse
1	Skimmer hoes	1	Warehouse

Tools

<u>Standard</u>	<u>Description</u>	<u>Quantity Observed</u>	<u>Equipment Location</u>
1	Rope - Nylon 500 ft.	1	Warehouse
1	Hammer-claw	1	Warehouse
2	Hammer 5 lb. Sledge	2	Warehouse
1	Axe	1	Warehouse
1	Cloths - (box)	1	Warehouse
2	Rakes - leaf	2	Warehouse
2	Rakes - absorbent	2	Warehouse
3	Shovels - scoop with holes	3	Warehouse

SECTION 09.07: Appendices
 Sarnia Products Pipeline (SPPL) «Inventory of ER Equipment»

2	Shovels - round mouth	2	Warehouse
2	Picks	2	Warehouse
1	Pliers - side cutters	1	Warehouse
1	Sling - 4 ft. nylon	1	Warehouse
6	Slings - 3 ft. wire	6	Warehouse
2	Hand saws	2	Warehouse
11	Oil - 10w30	11	Warehouse
1	Oil - outboard motor	1	Warehouse
2	Wrenches - pipe 14"	2	Warehouse
2	Wrenches - pipe 24"	2	Warehouse
2	Wrenches - pin 2-3/16"	2	Warehouse
2	Wrenches - pin 2"	2	Warehouse
2	Wrenches - pin 1-13/16"	2	Warehouse
2	Wrenches - pin 1-5/8"	2	Warehouse
2	Wrenches - 15" crescent	2	Warehouse
1	Wrench - clamp tightener	1	Warehouse
4	Wire rolls	4	Warehouse
2	Ground clamps	2	Warehouse
4	Chairs and table	4	Warehouse
2	Chains with grab ends	2	Warehouse
2	Metal pans - 2 ft x 3 ft. x 6"	2	Warehouse
3	Traps	3	Warehouse
1	Roll of clear plastic	1	Warehouse

SECTION 09.07: Appendices
Sarnia Products Pipeline (SPPL) «Inventory of ER Equipment»

Signature: _____

Name: _____
(Print)



APPENDIX 8 SARNIA PRODUCTS PIPELINE EMERGENCY RESPONSE EXERCISE 2018

SARNIA PRODUCTS PIPELINE EMERGENCY RESPONSE EXERCISE 2018



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Exercise Summary

On October 2 – 4, 2018, a Functional Exercise was conducted at the Hilton Mississauga/Meadowvale Hotel, 6750 Mississauga Rd, Mississauga, ON, on behalf of the Imperial Sarnia Products Pipeline (SPPL). The SPPL Spill Management Team was supported by the ExxonMobil Americas Regional Response Team, who provided additional Incident Management Team professionals to support the simulated response to a scenario involving a pipeline break and simulated release of diesel fuel to the Humber River in the Greater Toronto area.

The exercise featured a day of training workshops held at the venue, followed by two days of exercise activities in which the Incident Command System was used to support the management of the simulated incident, culminating in the production of an Incident Action Plan that was approved by the Incident Commander (Imperial). All field activities were simulated with wall maps and dedicated Operations teams working in segregation from the command post, testing communications between the groups and allowing for discussion and analysis to be conducted on the existing response strategies. The field teams integrated the Imperial response organization with Toronto Water, who has responsibilities for response to oil spills in the Humber River.

In total there were 164 participants in the exercise, which included 18 local and provincial officials, 38 support contractors, and 108 Imperial and ExxonMobil responders.



Exercise Participants

Imperial and ExxonMobil would like to offer a special thank you to all of the organizations invited, as well as those involved in the design and execution of this exercise. We recognize the time and resource commitment involved in attending these kinds of emergency response training events and also the importance of active participation.

- Canada's First Nations
- Toronto Water
- Toronto Fire
- Ontario Ministry of Environment, Conservation and Parks
- Environment and Climate Change - Canada
- Toronto and Region Conservation Authority
- QM Environmental
- Eastern Canada Response Corp
- GHD
- Marine Spill Response Corp
- The Response Group
- TRG-Jetty
- Social Simulator
- Michael Todd Communications

Exercise Planning Process

The 2018 Imperial Sarnia Products Pipeline Exercise was planned and designed by members of Imperial, ExxonMobil, Toronto Water, the Ministry of Environment, Conservation and Parks (MECP), the City of Toronto, The Response Group, and QM Environmental. The exercise was based on a plausible scenario involving an oil release due to the effects of a simulated event, which occurred in the West Humber River in the greater Toronto area (GTA).

This exercise was evaluated by a team consisting of personnel from ExxonMobil, Imperial, the City of Toronto and MECP. The results of the evaluation are being provided by this report.

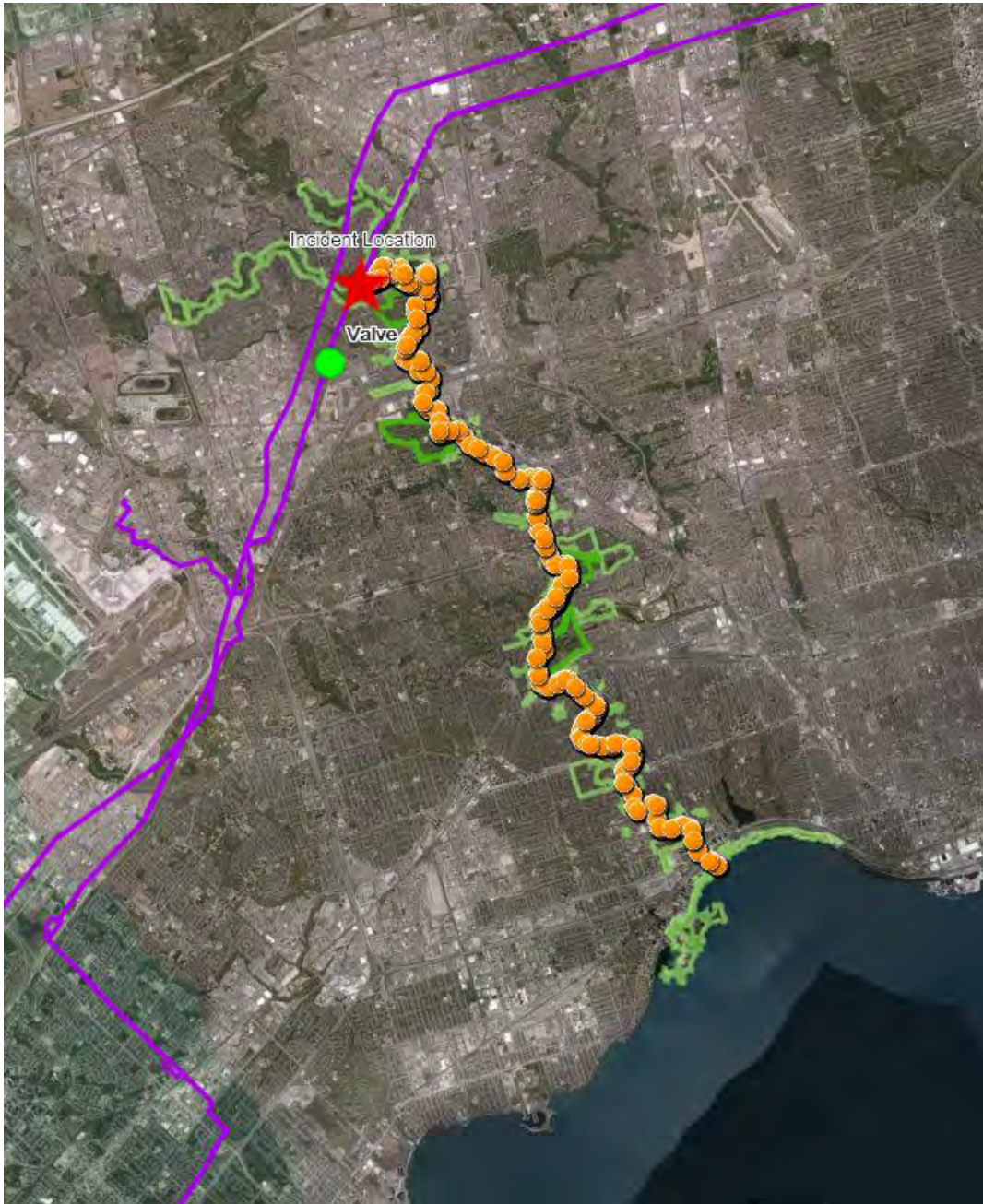
Exercise Design Objectives

- Use a plausible scenario to test SPPL's ability to mount an effective response - met
- Utilize existing Sarnia Products Pipeline Emergency Response Plan - met
- Develop response specific plans in-exercise
 - Waste Plan - met
 - Wildlife Management Plan - met
 - Water and Soil Sampling Plan - met
 - Others: (communications, logistics, decon, etc.) - met
- Practice the use of the Incident Command System -met
 - Engage the leadership of the site incident command structure - met
 - Engage external agencies and stakeholders in the response - met
- Establish a fit-for-purpose incident command post - met
- Utilize the PEAR model prioritization in setting response objectives - met
 - People – Environment – Assets - Reputation
- Conduct familiarization training between SPPL and the Americas RRT - met
- Test site ability to develop effective communications - met
 - JIC and Liaison to effectively communicate to the public and stakeholders and perform in social media - met
 - Manage a claims system to address affected public and businesses - met
- Use GIS tools to increase the effectiveness of response awareness - met
 - Test GIS participants ability to effectively setup a Common Operating Picture for all response entities to use - met
- Utilize WebIAP software in the development of an Incident Action Plan - met
 - Test players on ability to use the WebIAP system to help manage the overall incident documentation, including: - met
 - Resource tracking, response personnel setup, accountability, internal communications, plans retention - met
- Field Deployment Simulation
 - Simulate the deployment of equipment according to existing plan for control points - met
 - Operations Objectives - met

- Identify source control measures - met
- Deploy at simulated field sites and develop response tactics - met
- Establish a staging area - met
- Planning Objectives
 - Conduct simulated SCAT surveys along spill impacted areas downstream - met
 - Track resources as deployed in the "field" and at staging - met
- Security Objectives
 - Secure field sites per site security plan - met

Exercise Timeline

Day 1				Overnight	Day 2														
+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	+11 to +24	+25	+26	+27	+28	+29	+30	+31	+32	+33
Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 7	Block 8	Block 9											
0700-0900	0900-1200	1200-1500	1500-1700	1700 - 0700	0700-0900	0900-1200	1200-1500	1500-1600											
Initiating event	Strike Team arrives	ARRT arrives	Objectives meeting held	Simulated Activities	Cmd&Gen Staff Meeting	Tactics meeting	Planning meeting	IAP period 1 approved											
Site IMT forms	Cmd Post established	Source control at valve site	Night ops plan and staffing established		Prep for Tactical	Prep for Planning	Town hall meeting (or planning)	1600-1700 Hotwash session											
Notifications occur	Initial deployment at CP-1A	ICS-201 brief held in CP	Deployment at CP-3		Shoreline recovery ops	Press conference	Demobilization of some deployed locations												



Training Workshops Conducted

Training workshops were conducted on Tuesday for all exercise participants on topics that were relevant to the response. The design of the training was intended to get the participants involved in hands-on activities and interacting with each other and the subject matter. There were a total of six topics presented and each was facilitated by professionals with expertise in the field being demonstrated.

Participant feedback was very positive and the general consensus was that the interactive and engaging nature of the training was far superior to the usual day-long session of PowerPoint presentations and long lectures.

- **Decon Demo** – presented by QM Environmental

The QM Environmental personnel decon trailer was on display and participants were able to tour the equipment and were told what the specific purpose and use of the equipment was for. Two members of each rotating group were put through the exercise of donning the personal protective equipment worn by the responders on an oil spill.



- **Wildlife Response** – presented by the Americas Regional Response Team Environmental Unit

Participants were given a standing lecture about the importance of caring for water fowl and other wildlife that are impacted by oil spills. The team demonstrated how professionals will capture oil wildlife and participants were able to ask questions after being shown some of the cleaning techniques used to care for the wildlife.



- **Air Monitoring** – presented by GHD

The GHD team had a variety of air monitoring tools on display and they setup a number of them in a conference room to demonstrate how airborne contaminants are detected and how the information is communicated to a central monitoring station so the data can be used to warn the public and responders of dangerous air quality.

- **Resources Management** – presented by The Response Group

The Resources Management session was a game in which the participants were grouped into teams as they raced to move “response resources” from a staging area to a deployment area, and then on to another deployment area, before being demobilized. TRG used miniature response equipment and printed maps to conduct the simulation game.



- **Field Response Simulation** – presented by the Americas Regional Response Team Operations Section

In the Field Response Simulation, the students were given a geographic response plan for the Humber River and a set of response equipment and they had to find the most efficient and safe way of executing the response plan with the given resources. The process helped illustrate some of the challenges field teams are faced with as they deploy response equipment in rough and difficult to access terrain.



- **Humber River Virtual Tour** – presented by the Americas Regional Response Team GIS Group

In an effort to orient the participants to the surroundings and environment of the Humber River, they were taken through a virtual overflight of the Humber River and its watershed from just above the location of the scenario leak to the mouth of the river where it empties into Lake Ontario. The team was also able to use virtual reality goggles to view 360 degree immersive photos that had been taken along the banks of the river, so they could really see the topography in a very realistic manner.



Exercise Event Scenario Simulation

At approximately 0645 on October 2, the Sarnia Products Pipeline registers a low pressure alarm with the ExxonMobil Operations Control Center in Houston. Per protocol, the line is shut down and a notification is made to the SPPL Operations Superintendent. The previous few days have seen heavy rains and the Humber River is in a moderately high flow condition. The pipeline flow has been stopped at 0700 and the pressure continues to drop rapidly, indicating a significant leak in the line.

Due to the heavy rain conditions, the local operations team has been monitoring the river conditions and when they are notified of the pressure loss on the system, a team is dispatched to the Humber River crossing, per the SPPL Tactical Plan River Weather Monitoring protocol.

SPPL Initial Response Team gathers in an office at the Finch Terminal¹, establishing the initial Command Post. An initial Emergency Support Group meeting is held between the Imperial Calgary management team and Incident Commander in Toronto.

As the extent of the incident is understood by the Spill Management Team, additional resources are activated and mobilized, which include the Imperial oil response Strike Teams, who “arrive” at the Finch Terminal Command Post at 1000 to provide support to the response. The ExxonMobil Regional Response team was also activated and the members of that team arrive to integrate into the command post at 1200 on the 3rd. At this point, the incident command post is “moved” to the Hilton Mississauga, to accommodate the growing Incident Management Team.

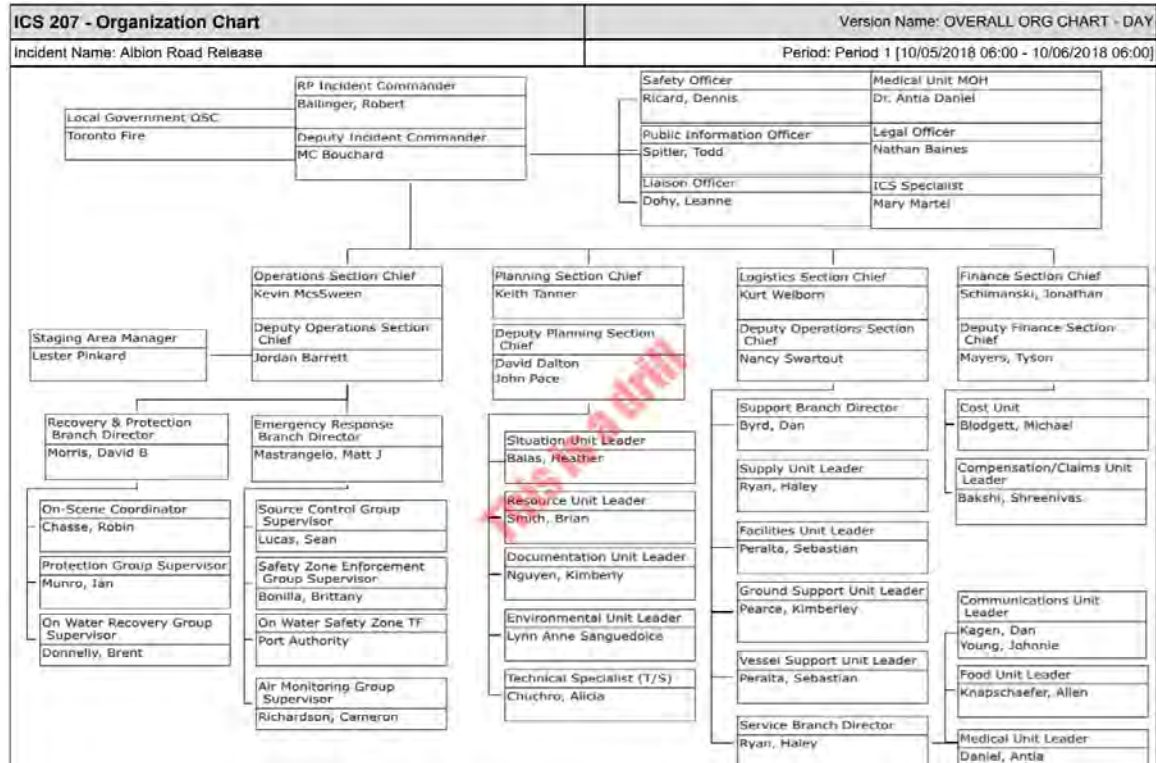
¹ All exercise activities were conducted at the Hilton Mississauga, although, for purposes of the simulation, the team is said to have met at the Finch Terminal.

Exercise Response Objectives

- Ensure the safety of the public and response personnel
- Control the source
- Maximize protection of environmentally sensitive areas, including drinking water intakes
- Contain and recover spilled material
- Recover and rehabilitate impacted wildlife
- Keep stakeholders and public informed of response activities



Exercise Organization



Exercise Work Products

Incident Action Plan Contents

- IAP Cover sheet
- ICS 202 – Incident Objectives
- ICS 204 – Assignment List
- ICS 205 – Communications Plan
- ICS 205a – Communications List
- ICS 206 – Medical Plan
- ICS 207 – Organization Chart
- ICS 208 – Site Safety Plan
- Map/Sketch
- Weather Report

Supporting Plans Created by the Incident Management Team

Section	Plan	Section	Plan
Planning	• Waste Management Plan	Logistics	• Ground Transport Plan
	• Shoreline Cleanup Assessment Technique (SCAT) Plan		• Response Security Plan
	• Sampling Plan		• Food Plan
	• Wildlife Plan		• Resource Requisition Plan
	• Decontamination Plan		• Vessel Routing Plan
Finance	• Delegation of Authority Plan		

Supporting Communications Plans Created by the Joint Information Center

<u>Work Item/Release</u>	<u>Timing of Release</u>
• Holding Statement	10/03/2018 08:00
• Media Advisory #1	10/03/2018 08:00
• News Release #1 Albion Road Response	10/03/2018 11:00
• Media Advisory #2 Incident Update	10/03/2018 13:30
• News Release #2 – “Imperial Taps into Global Expertise to Handle Birds in Distress”	10/03/2018 15:00
• Media Advisory #3 Media Update	10/03/2018 16:30
• Community Engagement Plan	10/04/2018
• News Release #3 – “Material Recovery”	10/04/2018 08:40
• Media Advisory #4	10/04/2018 11:00
• Key Messages	10/04/2018
• News Release #4 – “Birds and Water Key Focus”	10/04/2018 12:45
• News Release #5 – “Imperial Contribution”	10/04/2018

Operations Note: Operations response plans are an integral part of the Incident Action Plan and are not supplementary. All actions planned to be executed by Operations are reflected in the 204 Assignment List. An example of one of the Operational plans developed for the exercise is included here.

ICS 204 - Assignment List		Strike Team: River Protection Strike Team		
Incident Name: Albion Road Release		Period: Period 1 [10/05/2018 06:00 - 10/06/2018 06:00]		
Operations Personnel				
Position	Name	Affiliation	Contact Number(s)	Work Shift
Operations Section Chief	McSween, Kevin	Regional Response Team	(403) 861-6563	
Deputy Operations Section Chief	Barrett, Jordan	Regional Response Team	+12045572217	
On-Scene Commander	Chasse, Robin	Imperial	905-517-8269	
Recovery & Protection Branch Director	Morris, David B	NARRT	416-574-0049	
Protection & Containment Group Supervisor	Munro, Ian	Imperial	905-745-1294	
River Protection Strike Team Leader	Munro, Ian	Imperial	905-745-1294	
Resources Required				
Area Of Operation	Resource Kind	Description	Quantity	Size
River Protection Strike Team	Manpower: Responder	Spill Technician	12	
River Protection Strike Team	Manpower: Supervisor	ECRC Coordinator	1	
River Protection Strike Team	Vessel	Go-Devil Shallow Boat	1	19 feet
River Protection Strike Team	Trailer	Boom Trailer	2	
River Protection Strike Team	Boom	Boom	1200	13 inch (es)
River Protection Strike Team	Boom	Boom	5400	20 inch (es)
River Protection Strike Team	Vessel	Support Vessel	3	
Assignments				
<p>Work boats will be utilized to maintain boom for protection of priority sites in accordance with identified sensitive sites provided by Environmental Unit and spill trajectories to minimize impacts. Conduct boom maintenance (inspect and/or replace) and assist with shoreline and waterway booming per direction from River Protection Strike Team Leader. Monitor boom integrity during night operations if safe to do so. Pre-stage boom at designated sites for rapid field deployment as necessary.</p> <p>Any ineffective strategies or boom failures will be reported back to the River Protection Strike Team Leader. Back up boom with sorbent as an additional protection measure.</p> <p>Sites to be maintained via exclusion booming:</p> <ul style="list-style-type: none"> - Humber Marsh-1 - Humber Marsh-2 - Humber Marsh-3 - Humber Marsh-4 - Humber Marsh-5 - Humber Marshes Park - Humber Entrance East (Rip Rap) <p>*Sites are numbered from Lake Ontario going north.*</p> <p>Be aware of weather constraints and adjust accordingly. If weather deteriorates to an unsafe condition proceed to nearest safe harbor. Communicate changes in conditions with Strike Team Leader.</p> <p>Conduct 24/7 with appropriate lighting and proper safety precautions.</p>				
Communications				
Name / Function	Contact Details			
Air Operations /	Air Operations			
ICS 204 - Assignment List		Updated 07/19/2019 06:31 UTC -5:00		
INCIDENT ACTION PLAN SOFTWARE™	Printed 07/19/2019 06:31 UTC -5:00	Page 1 of 2	© TRG	

Exercise Evaluation

This exercise was evaluated by a team that consisted of members of ExxonMobil, XTO, Imperial, and the City of Toronto. The team utilized a software system that contained a series of questions that examined every aspect of the response, following the sections laid out in the Incident Command System. The iPads used for the evaluation, combined with the Eval app, allowed the evaluators to indicate compliance or noncompliance with a given standard, a space for adding notes, and allowed for photos to be attached to the responses, which was used as proof of meeting the requirements in cases where material evidence of completed tasks existed.

The full evaluation results are included as an attachment to this report. Key observations made by the evaluators are listed here:

- 10.1 Internal Communications Observation: it was observed by the Operations Section Chief that there needed to be a liaison role between the command post and field operations to help manage the support requests and tasks that appeared to be taking the Recovery & Protection Branch Director away from his responsibilities in the field. *This is an ongoing staffing issue that will be resolved in each action, non-systemic.*
- WA J.1 Logistics Section, General Observation: members in the Logistics Section were not always informed of when their individual plans were approved for use in the field. *This indicated a breakdown in communications between the Logistics Section leadership and the staff, which will be addressed through training and communication to the Logistics Chief and staff.*
- CA 8.2 Assessment: Confirmed with the Planning Section Chief that long term assessment of the impacts of the release had not been communicated. *This is a responsibility of the Planning Section and will be reinforced in future training with the Planning Section Chiefs to ensure their understanding.*
- WA 4.H4 Planning Section Chief Facilitated Meetings Observation: it was observed that in not all meetings did the PSC conduct a roll call of required attendees. *This was mentioned to the PSC and it was done going forward through the remainder of the exercise.*
- WA 4.F7 Operations Staff coordinates with Planning to ensure Situation Status Boards are accurate: this practice was not observed during the exercise. *This activity will be reinforced to the Operations Section command post staff to ensure this accuracy check is conducted.*
- General Comment: the Claims unit in Finance did not receive claims made by the public for compensation which were provided to the Joint information Center. *Reinforce with the JIC that any claims that they receive must positively be passed on to the correct group in the command post for handling.*
- CA 9.1 Situation Unit: observer did not see evidence of section meetings throughout the exercise and spot briefings among the team were not regularly

held. *Reinforce to team the importance of holding group briefings to ensure everyone has a consistent understanding of the actions to be managed over the next operational period.*

- 3.2e Public Affairs: it was suggested that the JIC consider putting an FAQ online for the media to use for information in order to minimize information request phone calls. *Team has implemented a new process using the JETTY system for managing special response websites and for posting FAQs and other materials for the media and public.*

APPENDIX 9 LIST OF WATER COURSES AND PROPOSED METHOD OF CONSTRUCTION WITHIN TRCA JURISDICTION

Appendix 9: Watercourse Crossings and Proposed Crossing Methods within TRCA Regulated Areas

Crossing Site ID	Crossing Station (KP)	Watercourse	Watershed	Watercourse Type	Watercourse Classification ¹	Site Type	Construction Method	TRCA Region	Temporary Vehicle/ Equipment Crossing Method
WC_40.1	41+312	Little Etobicoke Creek	Etobicoke Creek	Stream	2	Pipeline crossing	Horizontal directional drill	Edge of TRCA jurisdiction to east of Fieldgate Drive	Drive around
WC_41.1	44+102	Etobicoke Creek	Etobicoke Creek	Stream	1	Pipeline crossing	Horizontal directional drill	East of Fieldgate Drive to Renforth Drive	Drive around
WC_43.1	45+087	Elmcrest Creek Tributary	Etobicoke Creek	Non-classified drainage	4	Pipeline crossing	Horizontal directional drill	East of Fieldgate Drive to Renforth Drive	Drive around
WC_44.1	45+504	Renforth Creek	Etobicoke Creek	Stream	2	Pipeline crossing	Horizontal directional drill	East of Fieldgate Drive to Renforth Drive	Drive around
WC_45.1	48+549	Mimico Creek	Mimico Creek	Stream	2	Pipeline crossing	Horizontal directional drill	Renforth Drive to south of Highway 409	Drive around
WC_46.1	53+378	Berry Creek	Humber River	Stream	2	Pipeline crossing	Horizontal directional drill	South of Highway 409 to east of Islington Avenue	Drive around
WC_47.1	54+505	West Humber River	Humber River	Stream	1	Pipeline crossing	Horizontal directional drill	East of Islington Avenue to Finch Avenue	Drive around
WC_89	54+728	Tributary to Humber River	Humber River	Non-classified drainage	4	Pipeline crossing	Open cut	East of Islington Avenue to Finch Avenue	Snowfill, or matting
WC_56	54+950	Humber River	Humber River	Stream	1	Pipeline crossing	Horizontal directional drill	East of Islington Avenue to Finch Avenue	Drive around

Crossing Site ID	Crossing Station (KP)	Watercourse	Watershed	Watercourse Type	Watercourse Classification ¹	Site Type	Construction Method	TRCA Region	Temporary Vehicle/ Equipment Crossing Method
WC_57	55+990	Emery Creek	Humber River	Stream	2	Pipeline crossing	Horizontal directional drill	East of Islington Avenue to Finch Avenue	Drive around
WC_54	56+060	Emery Creek	Humber River	Stream	2	Pipeline crossing	Horizontal directional drill	East of Islington Avenue to Finch Avenue	Drive around
WC_55	56+278	Emery Creek	Humber River	Stream	2	Pipeline crossing	Horizontal directional drill	East of Islington Avenue to Finch Avenue	Drive around
WC_49.1	56+418	Emery Creek	Humber River	Stream	2	Pipeline crossing	Horizontal directional drill	East of Islington Avenue to Finch Avenue	Drive around
WC_162	56+556	Emery Creek	Humber River	Stream	2	Access road crossing	Use existing crossing	East of Islington Avenue to Finch Avenue	Use existing crossing
WC_50.1	59+945	Black Creek Tributary	Humber River	Stream	2	Pipeline crossing	Horizontal directional drill	Finch Avenue to Finch Terminal	Drive around
WC_51.2	60+226	Black Creek	Humber River	Stream	1	Pipeline crossing	Horizontal directional drill	Finch Avenue to Finch Terminal	Drive around
WC_51.1	60+244	Black Creek	Humber River	Stream	1	Pipeline crossing	Horizontal directional drill	Finch Avenue to Finch Terminal	Drive around

Notes: KP = Kilometre Post

¹ See Section 2.2.1 of the TRCA permit application for definitions.

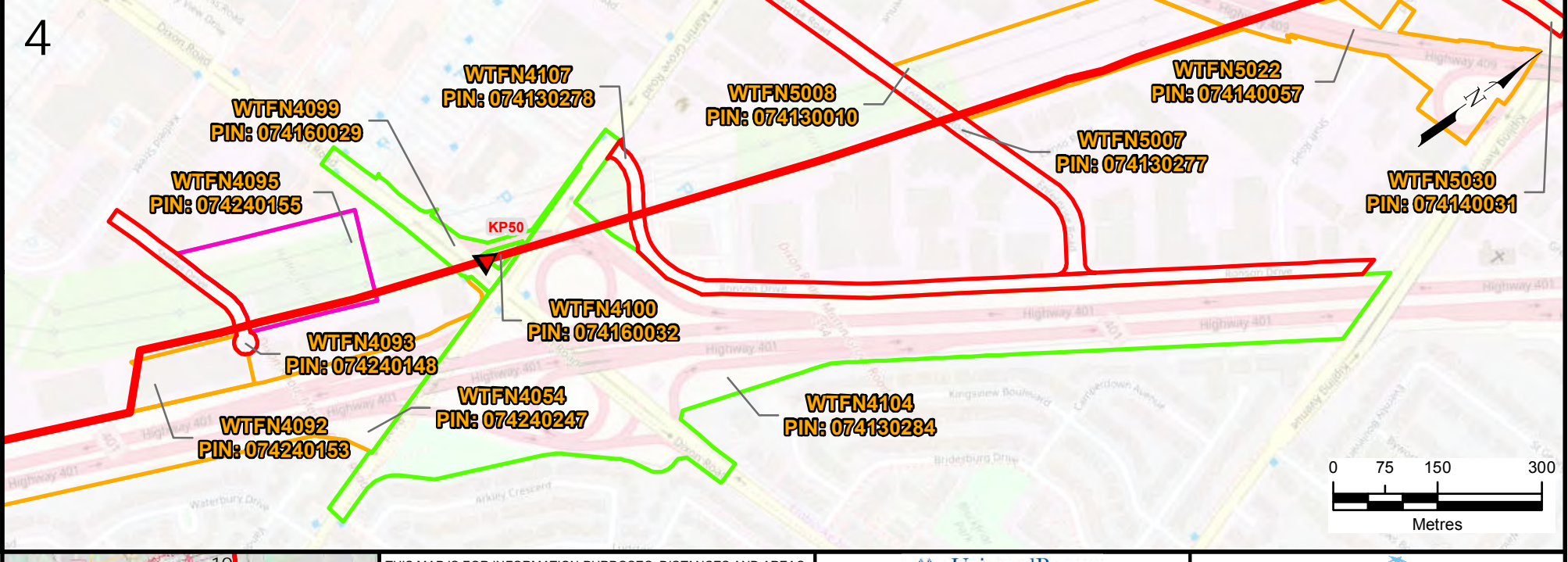
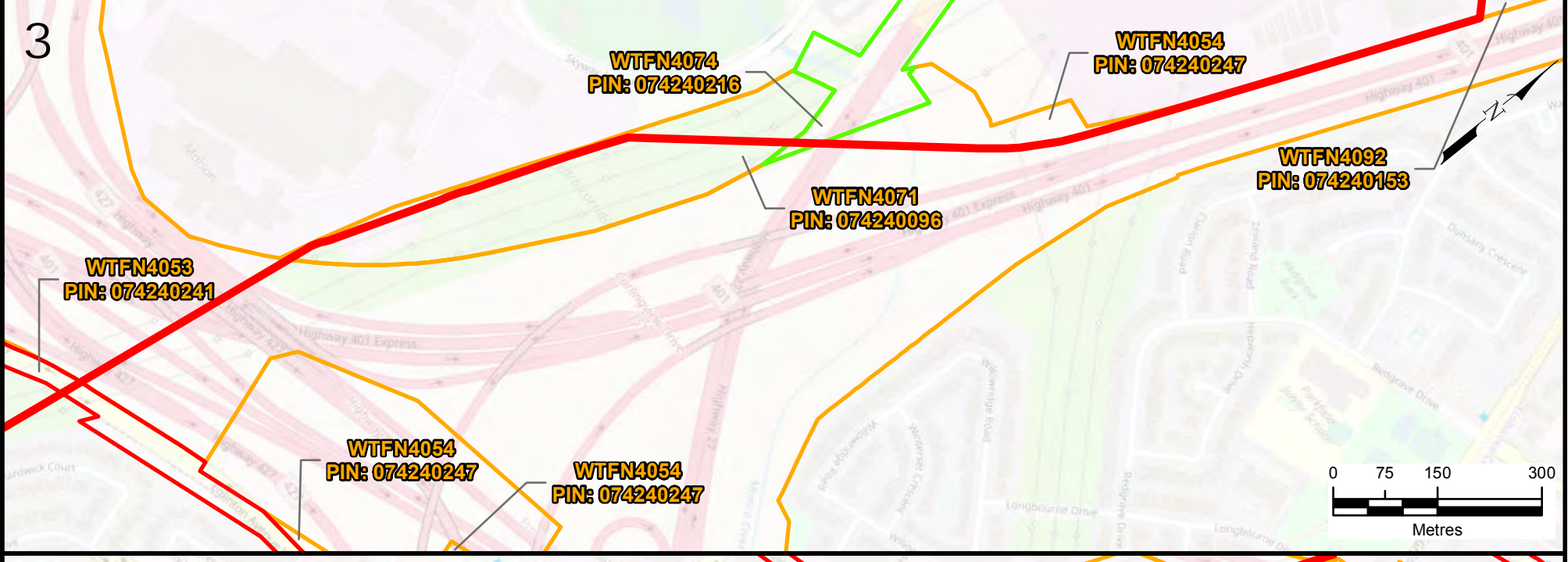
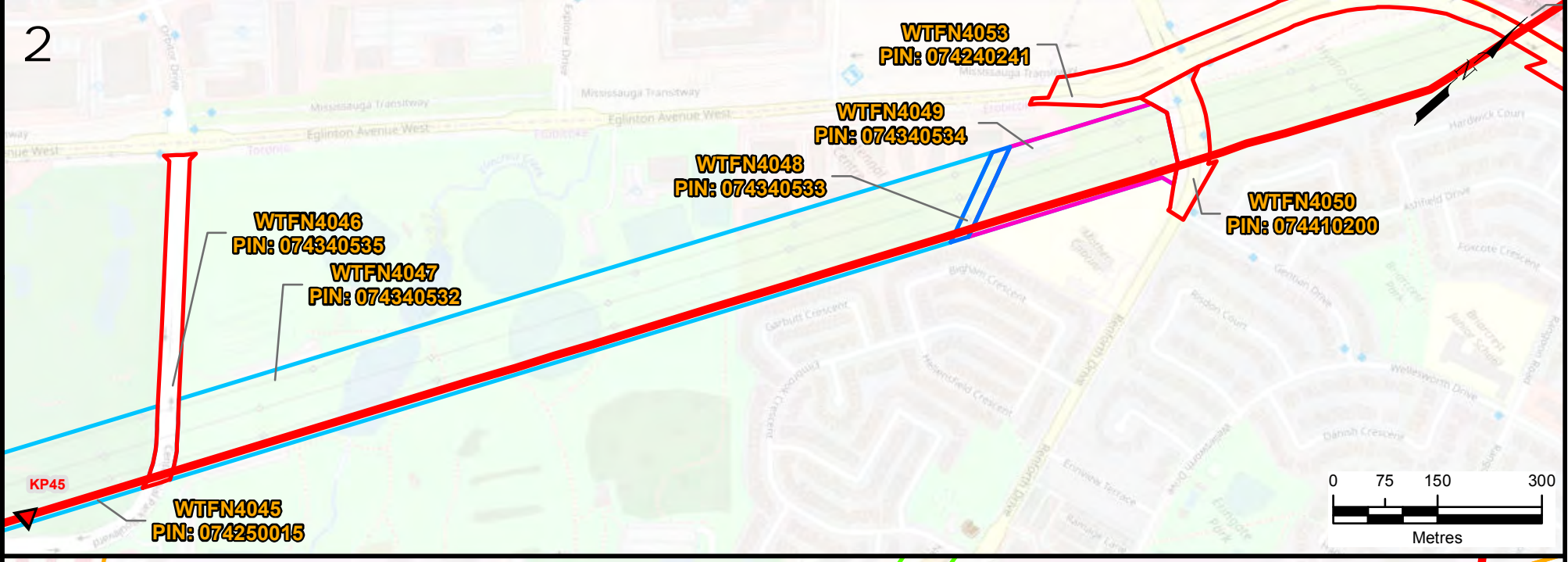
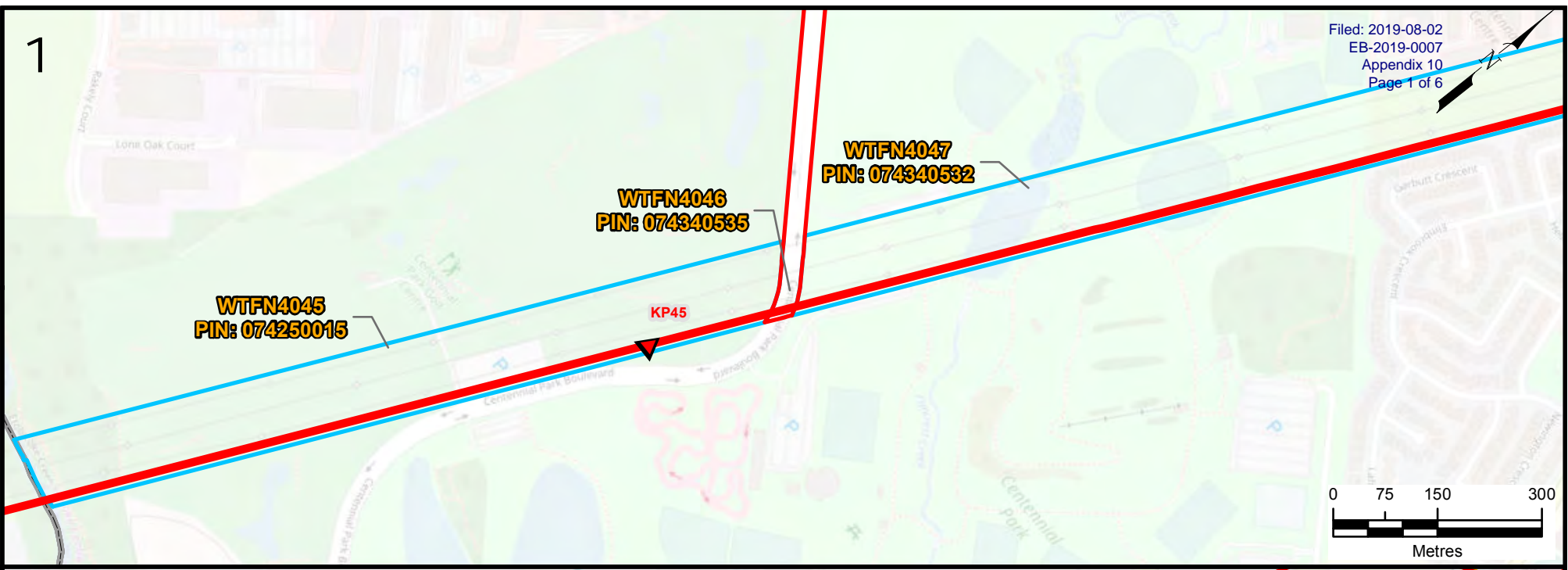
Appendix 9: Watercourse Crossings and Proposed Crossing Methods within the TRCA and Not within Regulated Areas

Crossing Site ID	Crossing Station (KP)	Watercourse	Watershed	Watercourse Type	Watercourse Classification ¹	Site Type	Construction Method	TRCA Region	Temporary Vehicle/ Equipment Crossing Method
WC_69	42+945	Wetland 14	Etobicoke Creek	Non-classified drainage	4	Pipeline crossing	Horizontal directional drill	Edge of TRCA jurisdiction to east of Fieldgate Drive	Snowfill, or matting (and clear span if wet)
WC_42.1	44+628	Elmcrest Creek	Etobicoke Creek	Stream	3	Pipeline crossing	Horizontal directional drill	East of Fieldgate Drive to Renforth Drive	Drive around
WC_53.1	52+780	Berry Creek Tributary	Humber River	Stream	4	Pipeline crossing	Open cut	South of Highway 409 to east of Islington Avenue	Drive around or use existing crossing (preferred), or clear span
WC_70	57+121	Emery Creek Tributary	Humber River	Non-classified drainage	4	Workspace crossing	Snowfill, or matting	East of Islington Avenue to Finch Avenue	Snowfill, or matting
WC_175	57+777	Unnamed Swale 4	Unknown	Non-classified drainage	4	Access road crossing	Snowfill, or matting	Finch Avenue to Finch Terminal	Snowfill, or matting

Notes: KP = Kilometre Post

¹ See Section 2.2.1 of the TRCA permit application for definitions.

APPENDIX 10 PARCEL IMPACT MAPS



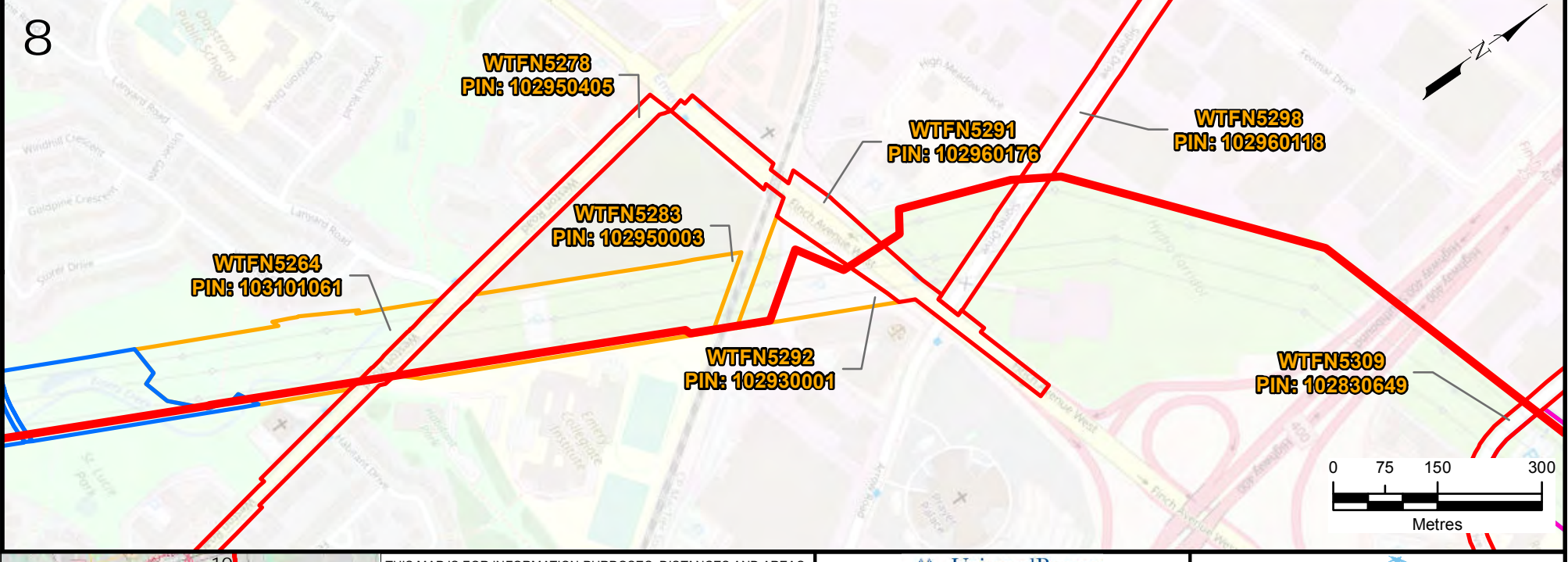
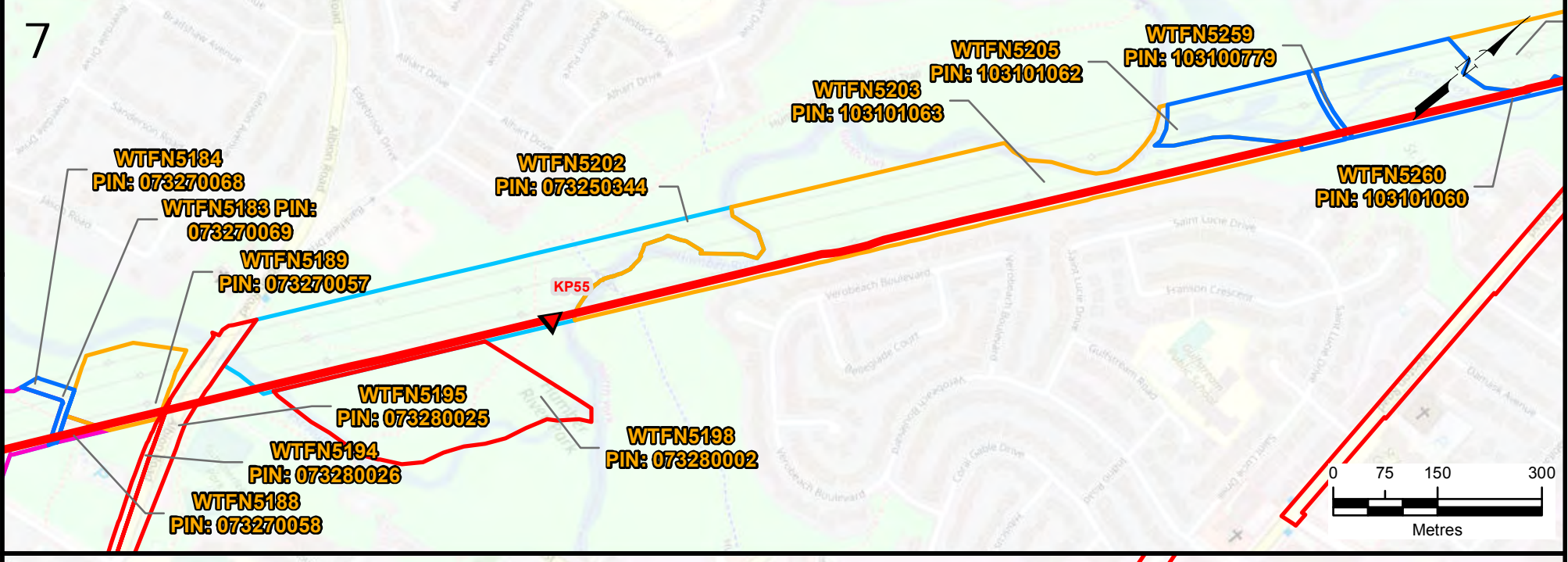
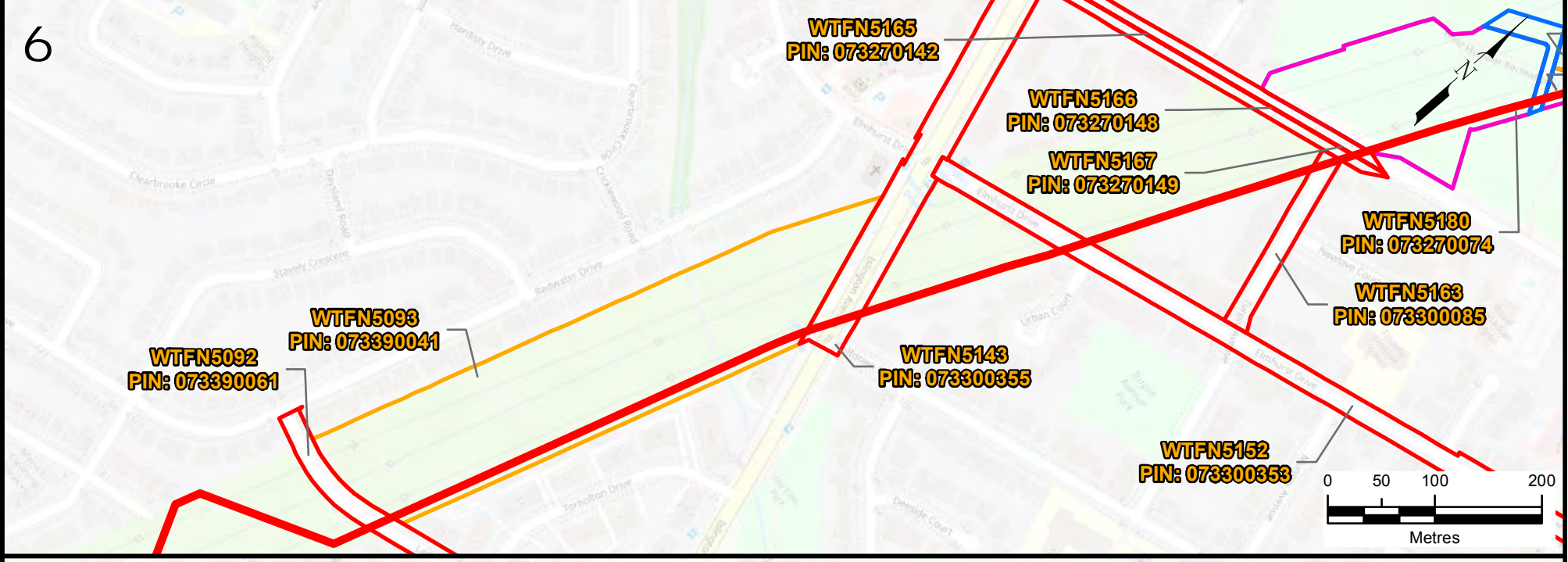
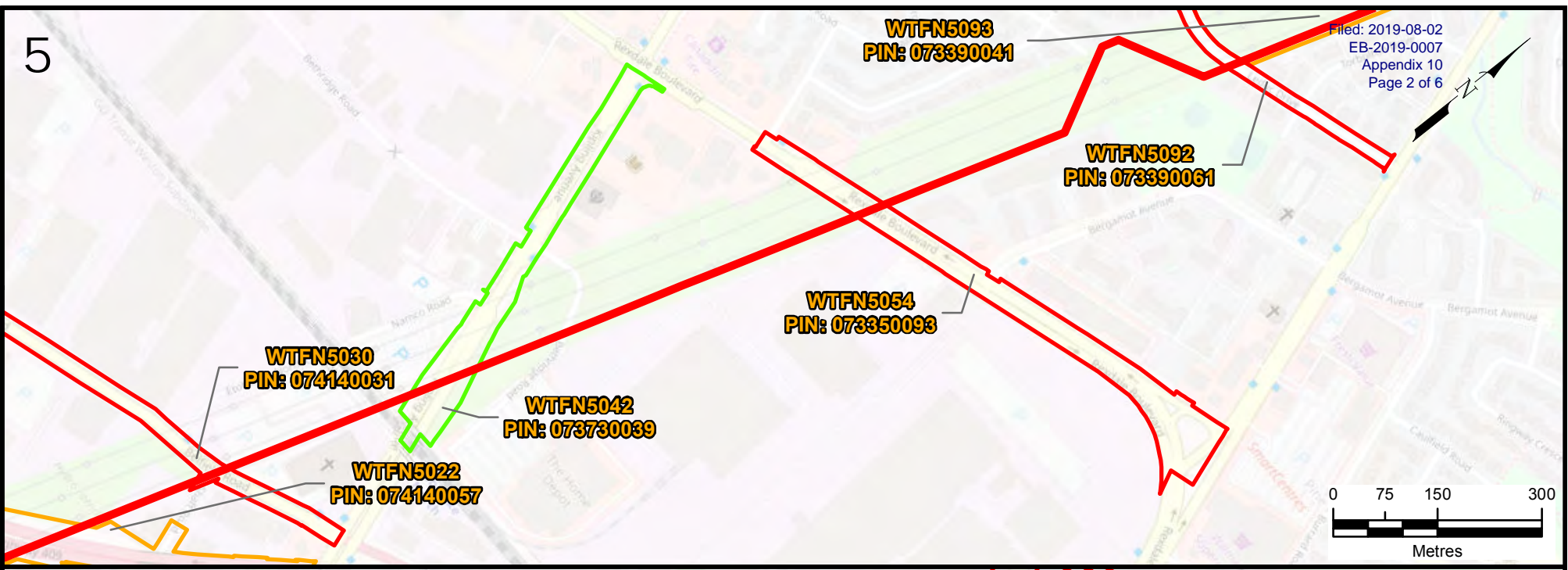
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 Universal Pegasus INTERNATIONAL <small>A Subsidiary of Hursting Ingalls Industries</small>				
NO	REVISION	DATE	APPR	
2	ISSUE FOR INFORMATION	08/02/2019	JAW	
1	ISSUE FOR INFORMATION	07/25/2019	JAW	
0	ISSUE FOR INFORMATION	07/23/2019	JAW	
SCALE	DATE	DRAWN	CHECKED	APPROVED
N.T.S.	07/23/2019	JCW	HMC	JAW

WATERDOWN TO FINCH PROJECT CITY OF TORONTO PROPOSED PIPELINE PARCEL REFERENCE MAP		
PROJ. NO.	DRAWING NUMBER	SHEET
24255	24255-507-MAP-00098	1 OF 3



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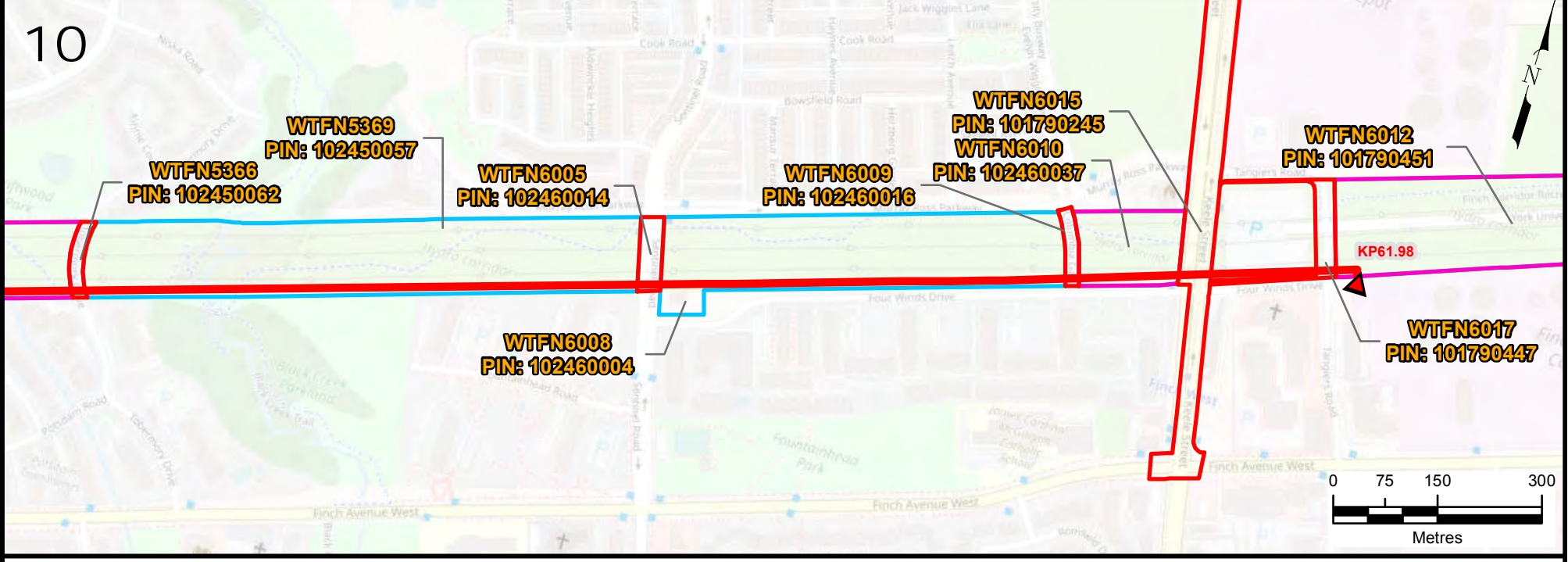
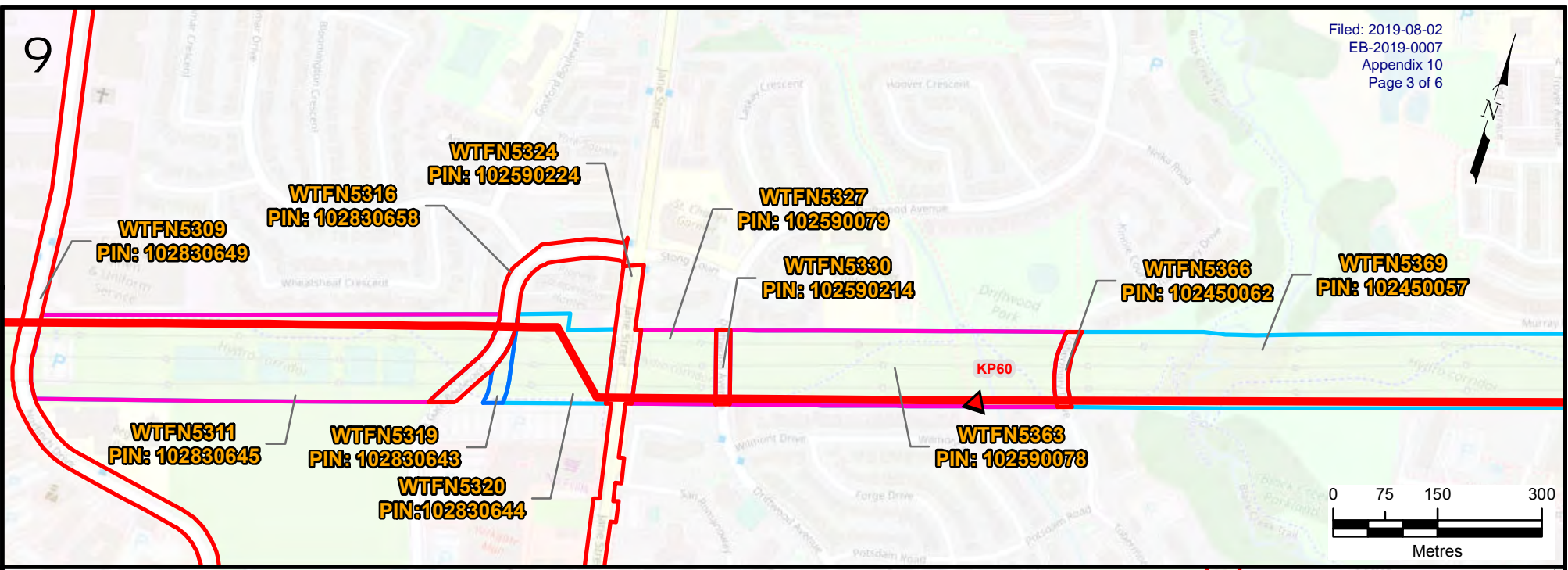
THIS MAP IS FOR INFORMATION PURPOSES. DISTANCES AND AREAS IN THIS MAP ARE APPROXIMATIONS ONLY AND SHOULD NOT BE USED FOR AUTHORITATIVE DEFINITION OF LEGAL BOUNDARY OR PROPERTY TITLE.

Legend

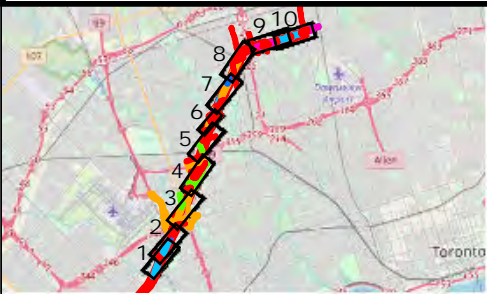
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- Public Road
- Easement Interest
- Surplus Lands
- MTO Jurisdiction
- Tenancy Interest
- Tenancy & Easement Interest

 Universal Pegasus INTERNATIONAL <small>A Subsidiary of Hursting Ingalls Industries</small>				
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1	ISSUE FOR INFORMATION	07/25/2019	JAW	
0	ISSUE FOR INFORMATION	07/23/2019	JAW	
SCALE	DATE	DRAWN	CHECKED	APPROVED
N.T.S.	07/23/2019	JCW	HMC	JAW

 WATERDOWN TO FINCH PROJECT CITY OF TORONTO PROPOSED PIPELINE PARCEL REFERENCE MAP		
PROJ. NO.	DRAWING NUMBER	SHEET
24255	24255-507-MAP-00098	2 OF 3



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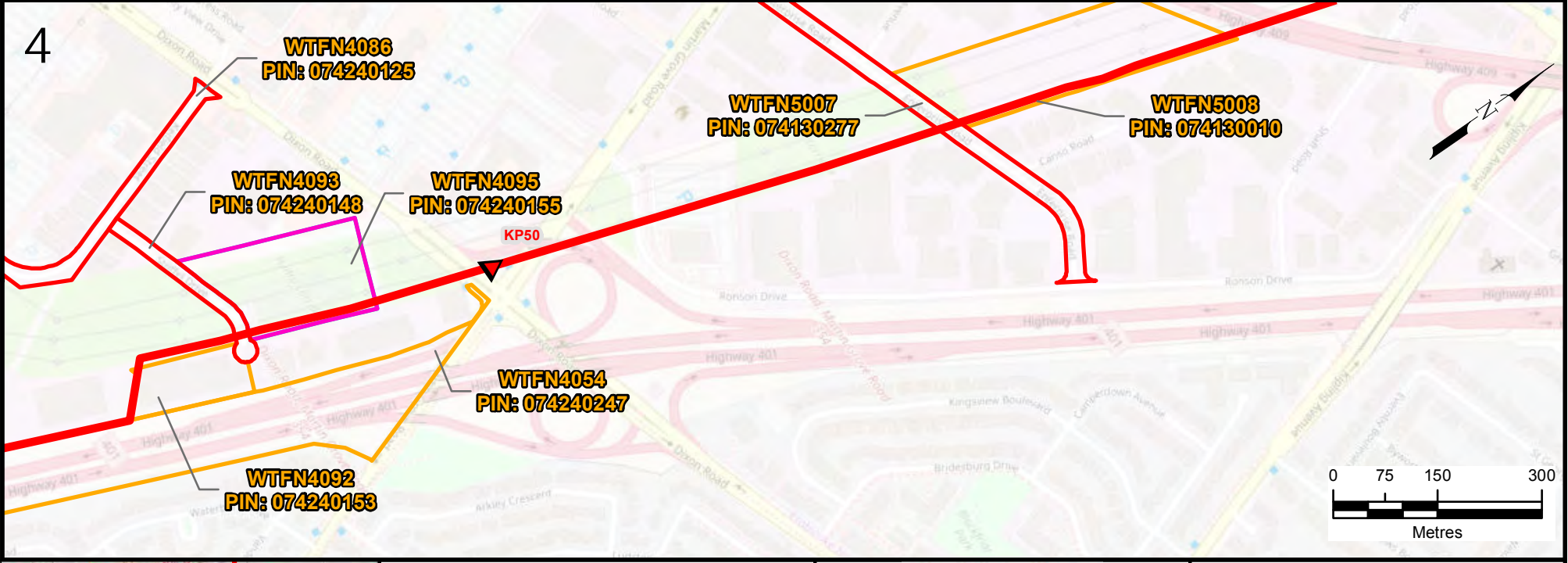
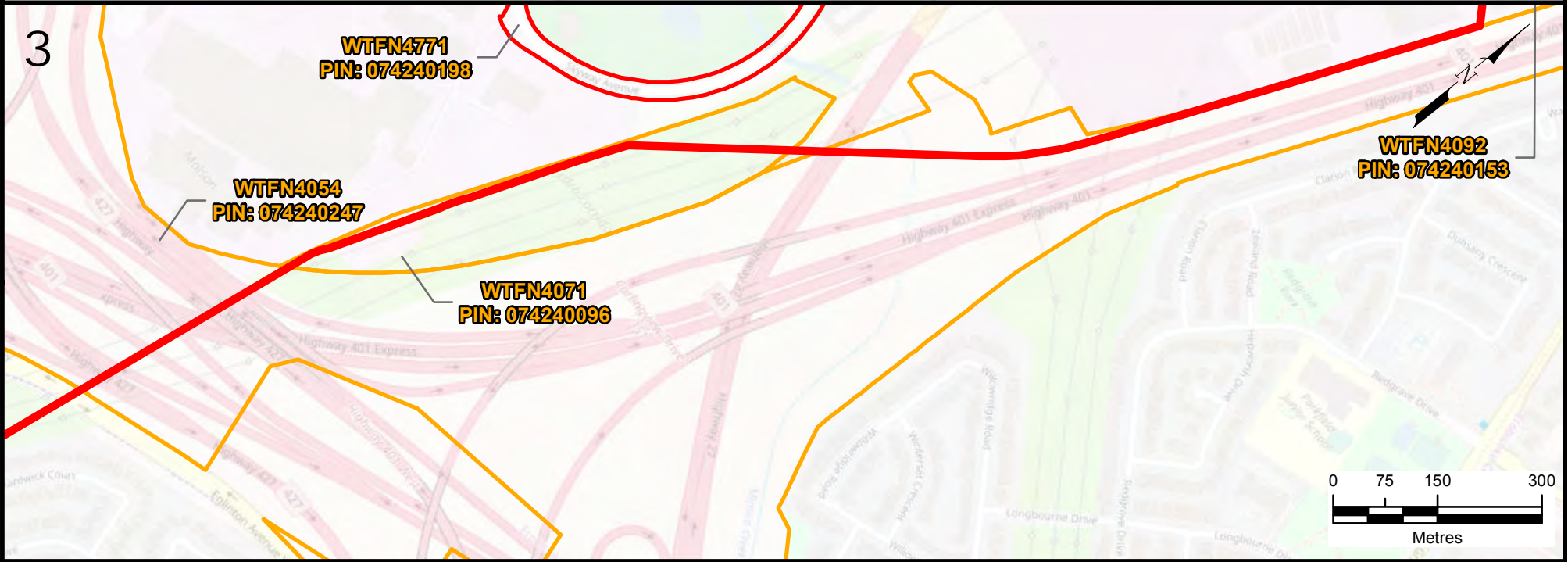
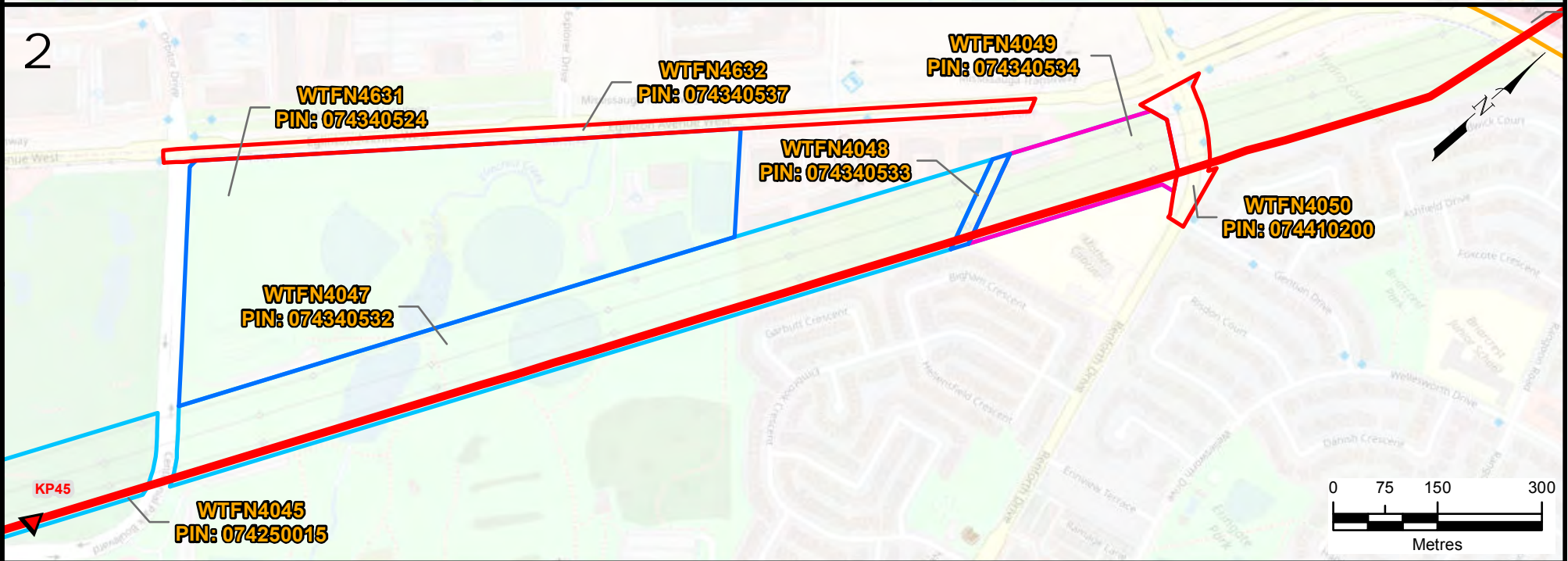
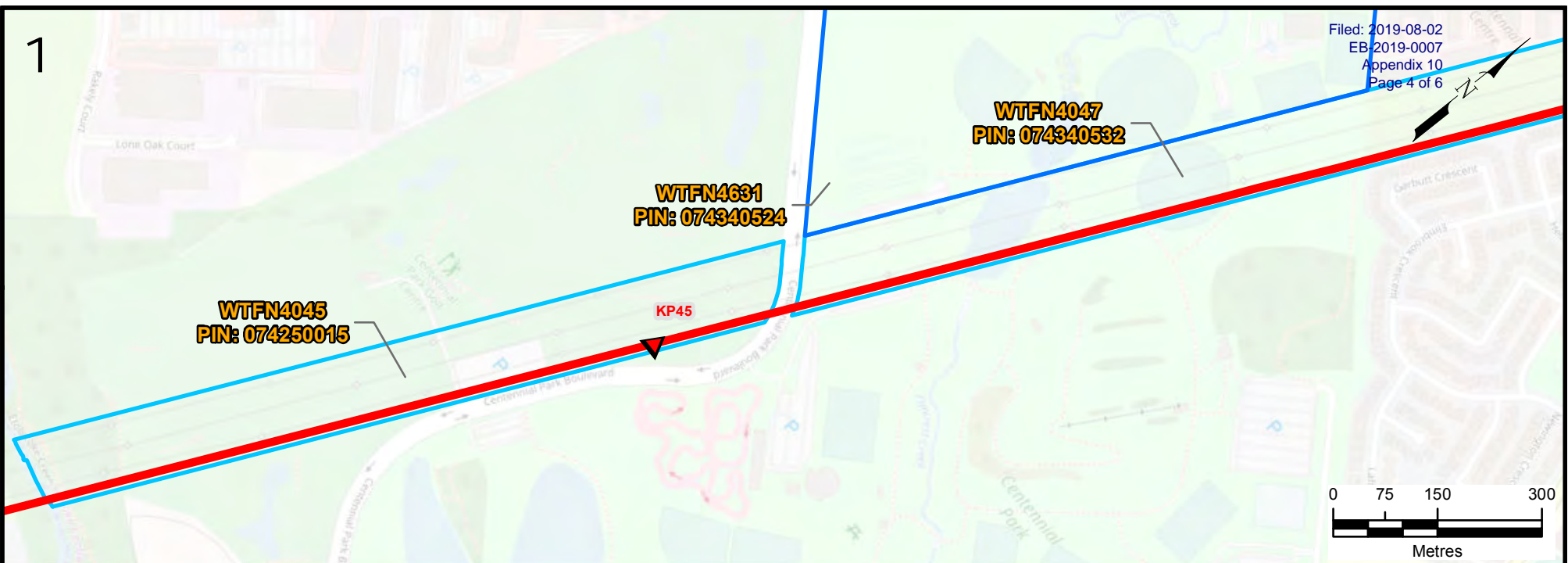
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Legend

Proposed Pipeline	Easement Interest
Public Road	Tenancy Interest
Surplus Lands	Tenancy & Easement Interest
MTO Jurisdiction	

UNIVERSAL PEGASUS INTERNATIONAL A Subsidiary of Hursting Ingalls Industries				
NO	REVISION	DATE	APPR	
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1	ISSUE FOR INFORMATION	07/25/2019	JAW	
0	ISSUE FOR INFORMATION	07/23/2019	JAW	
SCALE	DATE	DRAWN	CHECKED	APPROVED
N.T.S.	07/23/2019	JCW	HMC	JAW

WATERDOWN TO FINCH PROJECT CITY OF TORONTO PROPOSED PIPELINE PARCEL REFERENCE MAP		
PROJ. NO.	DRAWING NUMBER	SHEET
24255	24255-507-MAP-00098	3 OF 3



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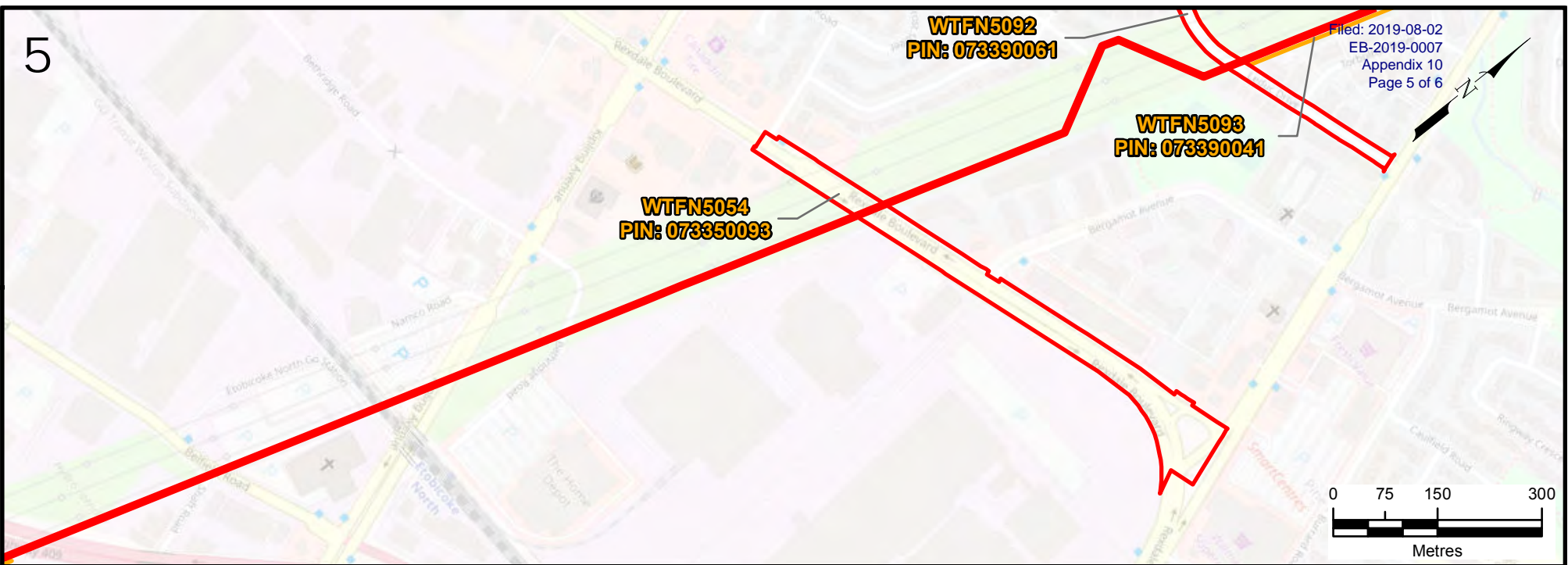
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Legend	
—	Proposed Pipeline
▭	Public Road
▭	Surplus Lands
▭	Easement Interest
▭	Tenancy Interest
▭	Tenancy & Easement Interest

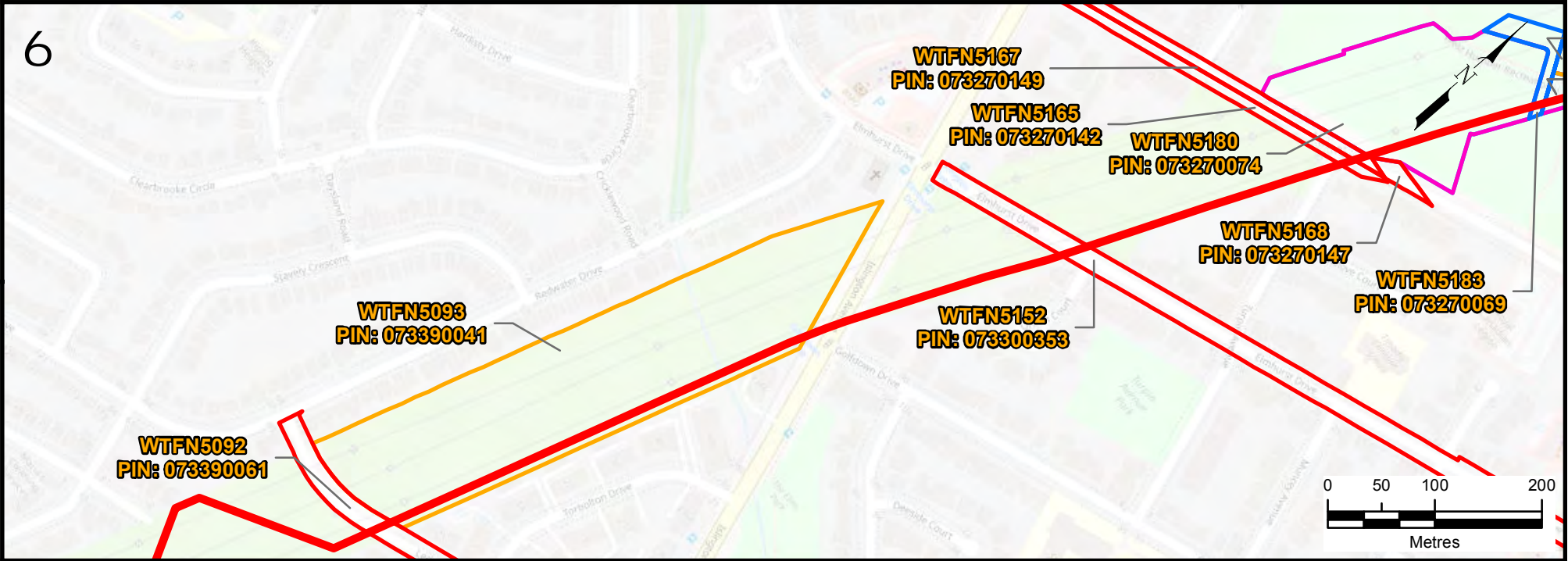
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0	ISSUE FOR INFORMATION	07/23/2019	JAW	
SCALE	DATE	DRAWN	CHECKED	APPROVED
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 WATERDOWN TO FINCH PROJECT CITY OF TORONTO PROPOSED TEMPORARY WORKSPACE PARCEL REFERENCE MAP		
PROJ. NO.	DRAWING NUMBER	SHEET
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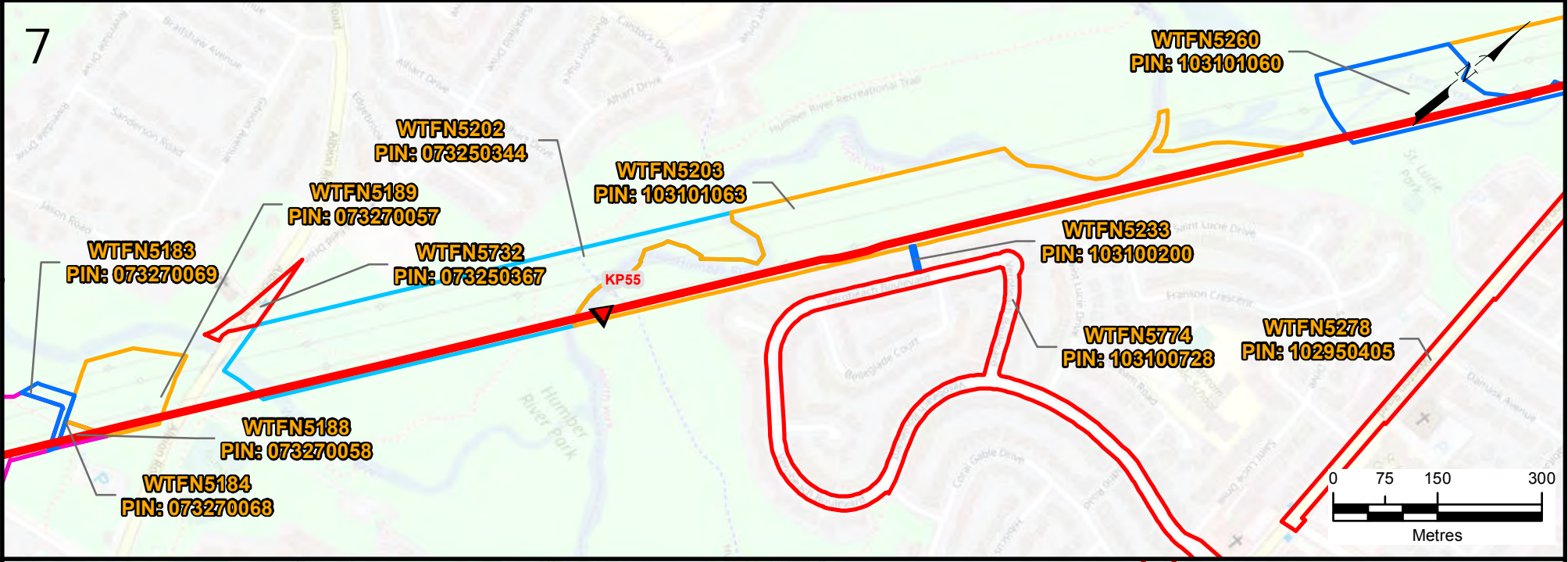
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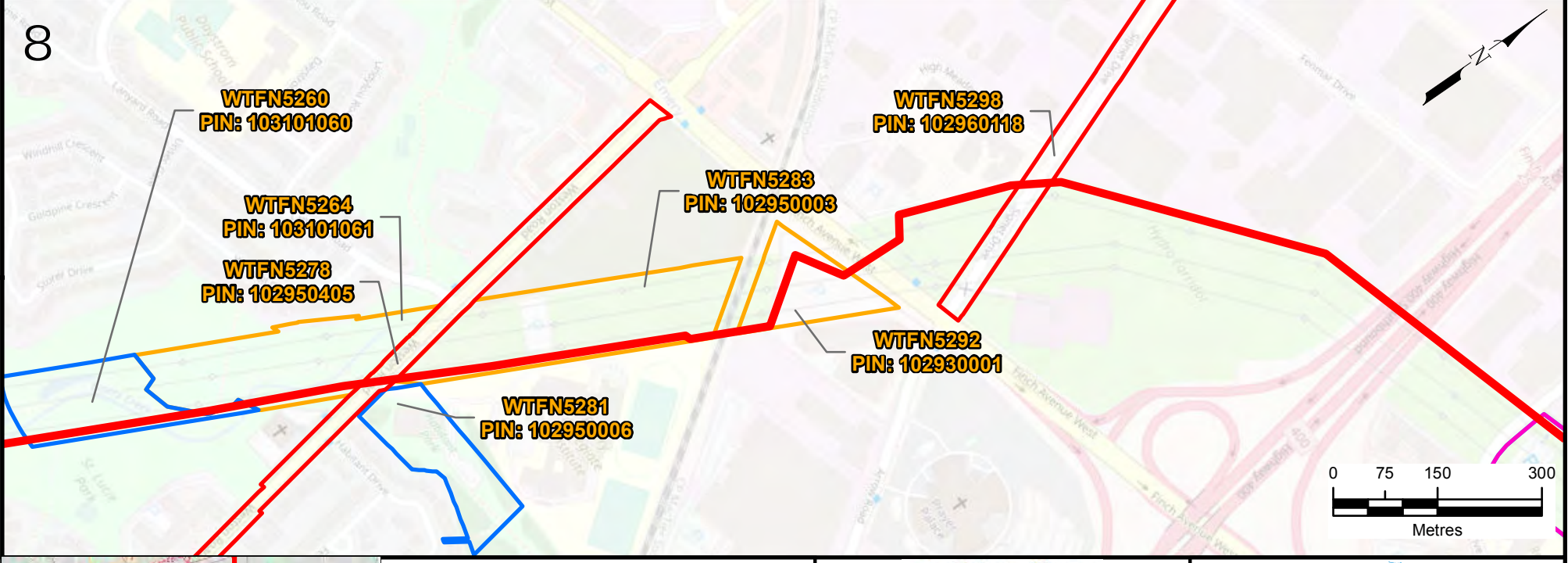
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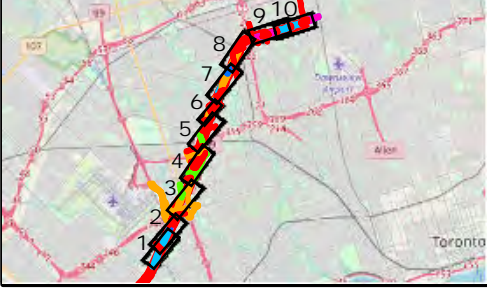
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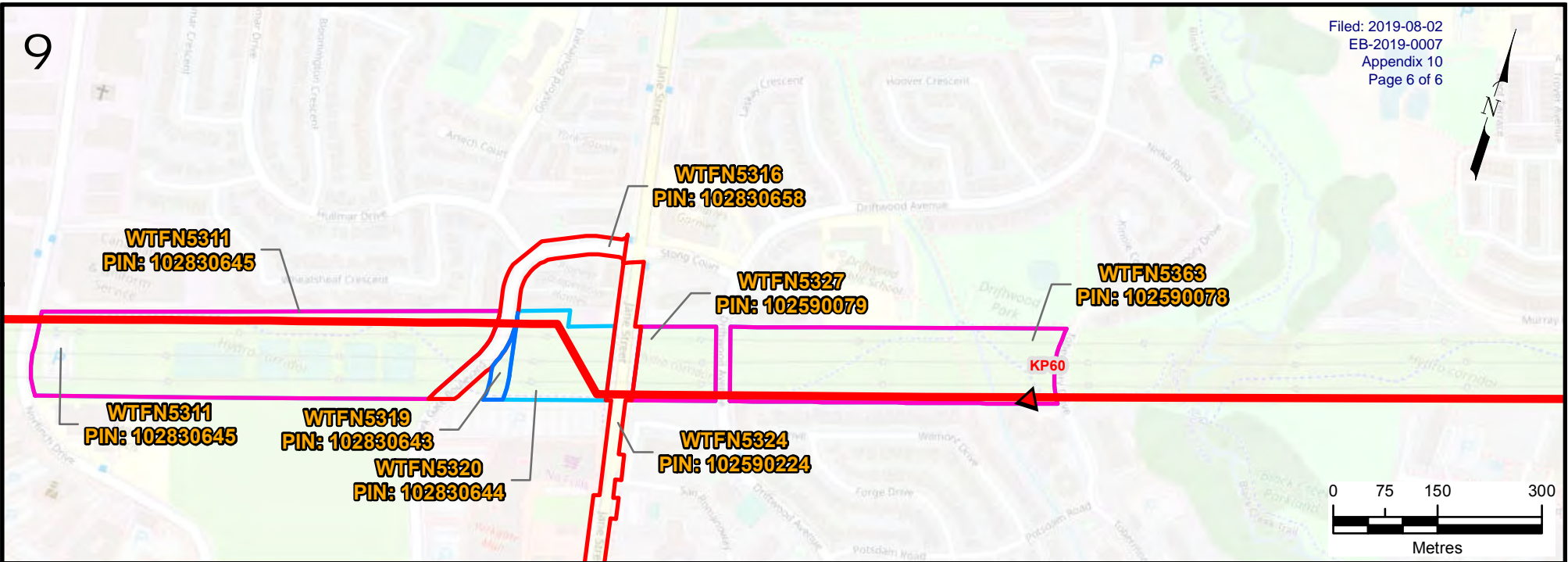
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- Proposed Pipeline (Red line)
- Public Road (Red outline)
- Surplus Lands (Blue outline)
- Easement Interest (Yellow outline)
- Tenancy Interest (Pink outline)
- Tenancy & Easement Interest (Cyan outline)

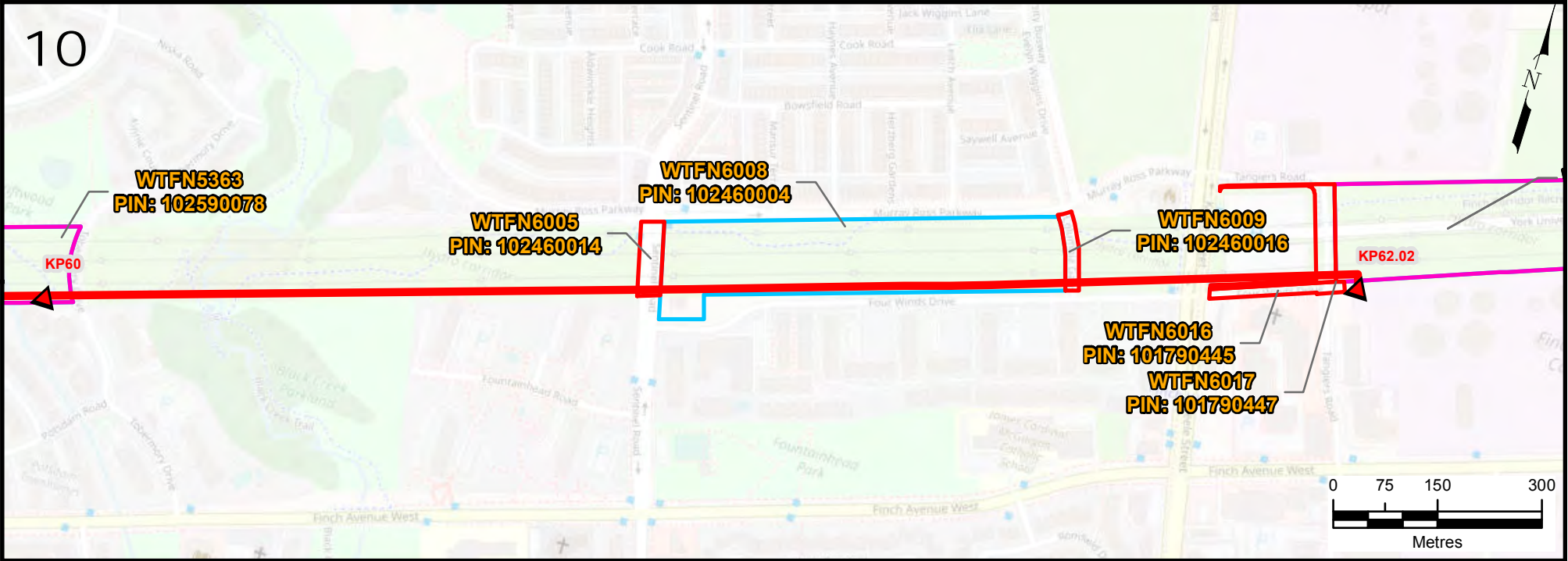
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N.T.S.	07/23/2019	JCW	HMC	JAW	24255	24255-507-MAP-00097	2 OF 3

WATERDOWN TO FINCH PROJECT
CITY OF TORONTO
PROPOSED TEMPORARY WORKSPACE
PARCEL REFERENCE MAP

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Legend

- Proposed Pipeline
- Public Road
- Surplus Lands
- Easement Interest
- Tenancy Interest
- Tenancy & Easement Interest

 Universal Pegasus INTERNATIONAL <small>A Subsidiary of Hursting Ingalls Industries</small>				
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 WATERDOWN TO FINCH PROJECT CITY OF TORONTO PROPOSED TEMPORARY WORKSPACE PARCEL REFERENCE MAP		
PROJ. NO.	DRAWING NUMBER	SHEET
24255	24255-507-MAP-00097	3 OF 3

APPENDIX 11 CONSULTATION ENGAGEMENT SUMMARY

Imperial Oil Limited Waterdown to Finch Project Consultation Log (February 2019 LTC Application to June 30, 2019)

Table 1 – Indigenous Communities

ROC #	Event Type *	Date	Participating Organizations	Summary
Haudenosaunee Confederacy of Chiefs Council (HCCC) / Haudenosaunee Development Institute (HDI) <i>(includes contacts to July 23, 2019)</i>				
2004	Email *	February 11, 2019	HDI Imperial	<p>1) In follow-up to the draft Environmental Report provided to HDI on February 4, 2019, Imperial offered reasonable funding to HDI to review the report, and asked that HDI send any comments on the report directly to Imperial. (Imperial dropped off a hard copy of the report at the HDI office on February 13, 2019.)</p> <p>2) Imperial noted the Environmental Report is part of the Leave to Construct application Imperial plans to submit to the OEB the week of February 22, 2019. A copy of the Letter of Intent to the OEB was provided.</p> <p>3) Imperial also requested that HDI provide any comments on the Stage 1 Archaeology Report, provided on October 16, 2018, as it will be finalized shortly.</p> <p>4) Imperial will provide an update on the WatFin Stage 2 archaeology program in the near future so that HDI can allocate resources.</p> <p>5) Attachment to email: December 20, 2018 Letter of Intent to the OEB.</p>
3016	Email *	February 19, 2019	HDI Two Row Archaeology (HDI) Wood E&IS	<p>1) Based on a find from the Stage 2 Program near the Integrity Dig 93 site, Wood proposed options to mitigate potential impacts during the upcoming integrity dig. Options were then discussed by phone, during which HDI requested a visit to the site. Wood confirmed by email that Imperial has approved the site visit, and provided the survey drawings for the site.</p> <p>2) Attachments to email: (a) original work space map for Integrity Dig 93; (b) revised workspace map; (c) survey drawings.</p>
2010	Email *	February 21, 2019	HDI Wood E&IS	<p>1) As part of potential concerns in cross-over between Imperial's integrity digs that are not part of the Project (the Integrity Digs) and upcoming the Waterdown to Finch Stage 2 Archaeology Program (see February 19, 2019 email, ROC3016), Wood provided information on the location of the Integrity Dig 93 site, as well as a figure and survey drawings for the site.</p>
3031	Phone Call	February 21, 2019	HDI Imperial	<p>1) HDI left a voicemail for Imperial, asking about the find on the Waterdown to Finch and Dig 93 reports.</p>
2012	Email	February 22, 2019	HDI Wood E&IS	<p>1) HDI requested the Integrity Dig Stage 1 and 2 archaeology reports for Dig 93 (see February 21, 2019 email, ROC2010); Imperial provided via their large file transfer system.</p>

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2017	Email *	February 26, 2019	Ontario Ministry of Tourism, Culture and Sport (MTCS) Two Row Archaeology (HDI) Imperial	<p>1) HDI confirmed receipt of the Integrity Dig Stage 1 and 2 archaeology reports (see February 22, 2019 email, ROC2012). Relating to areas for the Waterdown to Finch Stage 2 Program and the Integrity Dig, HDI: (a) requested database mapping for registered archaeological sites; (b) requested clarification on the difference between a typical Stage 1 assessment and a high-level Stage 1 assessment; (c) asked why Imperial is using two archaeology consultants; and (d) asked why HDI was not included in Wood's assessment so they could authenticate the legitimacy of the report. HDI requested a copy of the high-level Stage 1 Archaeology Report.</p> <p>2) HDI noted that the assessment for WatFin noted historical resources that were not captured in the Integrity Dig 93 report.</p> <p>3) HDI requested a discussion with Imperial on the Stage 2 assessment methodology used, and asked that further work not proceed until that time.</p>
2022	Email *	March 8, 2019	MTCS Two Row Archaeology (HDI) Imperial	<p>1) Imperial responded to HDI's concerns about the WatFin Stage 2 Program and Integrity Dig 93 (see February 26, 2019 email, ROC2017).</p> <p>2) Imperial provided a copy of the requested database mapping, noting that a search of the MTCS database did not return any registered archaeological sites within 1 km of Dig 93.</p> <p>3) Imperial provided information to clarify the sequence of assessment work and the role of the archaeological consultants. Imperial noted a copy of the referenced high-level Stage 1 Archaeology Report was provided to HDI on October 16, 2018.</p> <p>4) Imperial noted that an HDI monitor did not participate in the Dig 93 work because it was conducted in advance of conversations about involving HDI monitors in program field work.</p> <p>5) Imperial confirmed that the find was not included in the October 2018 Dig 93 report as it was found after the report had been submitted (as part of a separate assessment), and that it was outside the area studied at that time. A Stage 3 assessment may be conducted in the area of the find this year. The draft Stage 1 Archaeology Report was provided to HDI in October 2018, and a final version will be provided later in March 2019.</p> <p>6) Attachment to email: Stage 1 MTCS 1 km database mapping.</p>
2027	Email	March 15, 2019	HDI Two Row Archaeology (HDI) Imperial	<p>1) Imperial informed HDI that the WatFin Stage 2 Program is scheduled to resume on April 2, 2019. The program will determine if there are archaeological resources within the planned project footprint. Information was provided on how the field work will be completed.</p> <p>2) Attachment to email: Crew planner (schedule).</p>
2116	Email	March 25, 2019	HDI Imperial	<p>1) Imperial anticipates starting the Stage 2 Program on April 2, 2019 and requested confirmation of HDI participation (see March 15, 2019 email, ROC2027).</p>
2039	Email	March 27, 2019	Two Row Archaeology (HDI) Imperial	<p>1) Imperial followed up on the March 8, 2019 email (see ROC2022) containing responses to HDI's concerns about the Integrity Digs and WatFin Stage 2 Program to see if HDI had any further questions. Imperial will be continuing with the Integrity Digs maintenance program as scheduled.</p>

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2120	Email	April 1, 2019	HDI Two Row Archaeology (HDI) Imperial	1) Imperial noted April 9, 2019 as the tentative start date for the Stage 2 Program (see March 25, 2019 email, ROC2116). 2) ERM noted that all monitors are responsible for providing their own personal protective equipment and provided a list required personal protective equipment.
2123	Email	April 4, 2019	HDI Two Row Archaeology (HDI) Imperial	1) Imperial provided a new tentative start date of April 16, 2019 for the Stage 2 Program (see April 1, 2019 email, ROC2120).
2055	Email *	April 16, 2019	HDI Two Row Archaeology (HDI) Imperial	1) Imperial provided HDI with a copy of the updated draft WatFin Stage 1 Archaeology Report for review and comments, noting the changes made since the draft initially provided on October 16, 2018 (see March 8, 2019 email, ROC21022). Imperial offered funding to HDI to review the report. 2) File sent via large file transfer. 3) Attachments to email: (a) Stage 1 Archaeology Report, memo summarizing changes made; (b) Stage 1 archaeological assessment redacted maps.
3071	Email	April 22, 2019	HDI Two Row Archaeology (HDI) ERM Group	1) Imperial plans to start the Stage 2 Program on April 25, 2019 and noted that a small crew will conduct an assessment of conditions to determine when to start the full program.
2067	Email	April 24, 2019	HDI Two Row Archaeology (HDI) ERM Group Imperial	1) HDI requested a meeting to discuss the Stage 2 Program test pitting methodology; Imperial suggested May 8, 2019.
2074	Email *	April 25, 2019	HDI Two Row Archaeology (HDI) Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and provided information about the Project and how to become an intervenor. Imperial will drop off a hard copy of the application to the HDI office. 2) Attachment to email: OEB Notice of Hearing.
N/A	Field Studies	April, May, June, July 2019	HDI HWN MCFN Six Nations	Beginning April 25, 2019 and continuing to date, First Nations monitors have been involved in the Stage 2 Program to: participate in and observe field work, ensure community perspectives and priorities are considered, and facilitate input into the Project. Additionally, monitors have been invited to participate in the pending Environmental Field Program. Imperial's contractor is facilitating monitor participation in these programs and there is regular communication between Imperial's contractor and the First Nations to coordinate this participation.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2240	Email	April 30, 2019	HDI Huron-Wendat Nation (HWN) Mississaugas of the Credit First Nation (MCFN) Six Nations of the Grand River Stantec Two Row Archaeology (HDI) ASI Heritage ERM Group Imperial Past Recovery	1) Imperial noted the Stage 2 Program work has been delayed until May 7, 2019 due to weather and that logistics will be provided prior to that date.
2080	Email	May 1, 2019	HDI HWN MCFN Six Nations Two Row Archaeology (HDI) Stantec ASI Heritage ERM Group Imperial Past Recovery	1) Imperial provided the crew planner schedule and number of archaeologists for the Stage 2 Program work. 2) Attachment to email: Crew planner. [This document is provided weekly, and is not captured as individual ROCs going forward.]
2084	Email	May 1, 2019	MTCS Two Row Archaeology (HDI) ERM Group	1) HDI indicated that they prefer to continue with smaller crews and would prefer to wait for feedback from MTCS for input on their questions regarding the Stage 2 Program process (see May 1, 2019 email, ROC2080).
2085	Email *	May 1, 2019	MTCS Two Row Archaeology (HDI) ERM Group	1) HDI expressed concern over the test pit size for the Stage 2 Program. HDI requested that MTCS ensure proper standards are followed.
2086	Email	May 2, 2019	MTCS Two Row Archaeology (HDI) ERM Group	1) ERM agreed to get MTCS's feedback on HDI's concerns (see May 1, 2019 emails, ROC2084 and ROC2085).
2088	Email *	May 3, 2019	MTCS Two Row Archaeology (HDI) ERM Group	1) MTCS responded to HDI's concerns regarding the crew size and test pit size for the Stage 2 Program, and provided guidelines to ensure proper standards are followed (see May 1, 2019 email, ROC2085).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2090	Email *	May 7, 2019	MTCS Two Row Archaeology (HDI) ERM Group	1) ERM shared MTCS's response regarding HDI's Stage 2 Program concerns (see May 1, 2019 emails, ROC2084 and ROC2085).
2091	Email *	May 8, 2019	HDI HWN MCFN Six Nations Two Row Archaeology (HDI) ERM Group Imperial	1) HDI expressed concerns regarding archaeological staff conducting Stage 2 Program work and numbers onsite. HDI requested that archaeological excavation for the Stage 2 Program cease and desist and that moving forward only trained and qualified personnel with two years of experience in Stage 2 test pitting methodology participate in the Stage 2 Program work. 2) Imperial confirmed the qualifications of the trained archaeologists involved in the Stage 2 Program.
2092	Email *	May 10, 2019	Two Row Archaeology (HDI) Imperial	1) Imperial responded to HDI's concerns regarding archaeological staff conducting Stage 2 Program work, and requested meeting dates to discuss this matter as well as outstanding topics. HDI provided potential meeting dates; Imperial to confirm date (see April 24, 2019 email, ROC2067). 2) Imperial noted that Stage 2 Program work would resume on May 13, 2019 (see May 8, 2019 email, ROC2091).
2093	Email	May 14, 2019	Two Row Archaeology (HDI) Imperial	1) Imperial confirmed a meeting with HDI for May 30, 2019 to discuss concerns regarding archeological staff conducting Stage 2 Program work as well as other topics (see May 10, 2019 email, ROC2092). HDI to confirm attendees.
2094	Field Studies	May 14, 2019	Two Row Archaeology (HDI) ERM Group Imperial	1) HDI verbally requested an additional test pit in the centre of the 5-m transects for the Stage 2 Program. Imperial asked that the request be provided in an email.
2095	Email	May 14, 2019	MTCS Two Row Archaeology (HDI)	1) HDI inquired about the specifics of implementing test pit guidelines and the best approach moving forward for pedestrian surveying during the Stage 2 Program (see May 7, 2019 email, ROC2090).
2096	Email *	May 15, 2019	Two Row Archaeology (HDI) Imperial	1) Imperial provided an update on the breakdown of field crew staff for the Stage 2 Program moving forward (see May 14, 2019 email, ROC2095).
2101	Field Studies	May 15, 2019	HDI ERM Group	1) During field work, HDI again requested additional test pits for the Stage 2 Program (see May 4, 2019 email, ROC2094).
2514	Email *	May 16, 2019	Two Row Archaeology (HDI) Imperial	1) Discussed the field crew staff for the Stage 2 Program by phone. Imperial followed up with an email providing information on the role and experience of ERM staff involved.
2515	Email *	May 16, 2019	MTCS Two Row Archaeology (HDI)	1) MTCS provided further information regarding test pitting guidelines, as well as test pitting vs. pedestrian survey (see May 14, 2019 email, ROC2095).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2516	Email	May 21, 2019	Two Row Archaeology (HDI) ERM Group	1) HDI requested that MTCS' test pit guidelines (see May 16, 2019 email, ROC2515) be implemented for the Stage 2 Program. 2) HDI requested all Stage 2 Program proposed and previous archaeological mapping for their records.
2105	Email *	May 22, 2019	Two Row Archaeology (HDI) Imperial	1) Imperial confirmed that the Stage 2 Program is following the MTCS Standards and Guidelines, and suggested that HDI provide examples from past field work that support their request for additional test pits (see May 15, 2019 email, ROC2101), and Imperial will respond by May 27, 2019. 2) HDI requested, and Imperial provided, clarification regarding field leads and field directors.
2106	Email	May 22, 2019	HDI Two Row Archaeology (HDI) Imperial	1) Imperial confirmed that the link to the final draft Stage 1 Archaeology Report previously provided is still active (see April 16, 2019 email, ROC2055). 2) Imperial confirmed they can provide the mapping requested by HDI (see May 21, 2019 email, ROC2516).
2107	Email	May 23, 2019	Two Row Archaeology (HDI) Imperial	1) HDI inquired, and Imperial responded, that Stage 2 Program mapping will be sent for the Stage 2 Program shortly (see May 22, 2019 email, ROC2106 and also ROC2105). HDI also requested that Imperial explain the role of the onsite ERM staff member.
2108	Email *	May 24, 2019	Two Row Archaeology (HDI) Imperial	1) Imperial followed up with HDI regarding concerns over field archaeological methodology. HDI reiterated their concerns over the methodology for clarity and noted that they would call Imperial (see May 23, 2019 email, ROC2107).
2112	Email	May 27, 2019	Two Row Archaeology (HDI) Imperial	1) Imperial requested that the May 30, 2019 meeting to discuss the Stage 2 Program be rescheduled (see May 14, 2019 email, ROC2093). Agreed on June 6, 2019. Discussed number of attendees for the meeting.
2517	Email	May 28, 2019	HDI Imperial	1) HDI provided a copy of the Field Monitor Agreement for 2019 field work, along with a copy of their standard monitoring agreement with 2019 rates. HDI requested that Imperial sign and return.
2114	Email *	May 30, 2019	Two Row Archaeology (HDI) Imperial	1) HDI expressed further concerns over a disregard of their archeological perspective. 2) Imperial committed to holding a conference call with HDI and providing a memo to address the concerns before the call. 3) Imperial noted that field work and potential changes to field methodology can continue simultaneously (see May 24, 2019 e-mail, ROC2108).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2455	Memo *	June 3, 2019	Two Row Archaeology (HDI) Imperial	1) Imperial responded to HDI's Stage 2 Program concerns (see May 24, 2019 email, ROC2108). Responses related to: (a) test pitting vs. pedestrian survey methods; (b) reducing test pitting interval distance; and (c) Stage 2 field program mapping. 2) Imperial still intends to schedule a meeting with HDI and MTCS (see May 30, 2019 email, ROC2114). 3) Copies of previous emails relating to concerns, as well as maps and photos of field work, were provided. 4) Memo sent by email. 5) Attachments to memo: (a) copies of emails dated May 1 (ROC2085), May 3 (captured in ROC2090), May 14 (ROC2095) and May 16, 2019 (ROC2515); (b) maps of Humber River Terraces; (c) photos of field work in progress.
2450	Email	June 4, 2019	Two Row Archaeology (HDI) Imperial	1) Discussed potential meeting dates (see May 27, 2019 email, ROC2112). HDI to confirm availability for June 12 or 14, 2019.
2460	Email	June 5, 2019	Two Row Archaeology (HDI) Imperial	1) Imperial informed HDI that the MTCS representative is not available for a conference call until the following week, and asked if HDI would prefer to hold the call this week with only Imperial or wait until the following week to include MTCS (see June 3, 2019 memo, ROC2455). 2) Imperial provided a link to the Stage 2 Program mapping (see May 23, 2019 email, ROC2107).
2518	Email	June 5, 2019	HDI Imperial	1) Imperial noted the current Field Monitor Agreement does not expire until September 28, 2019. Imperial will forward the provided agreement to ERM to address (see May 28, 2019 email, ROC2517).
3121	Email	June 5, 2019	Two Row Archaeology (HDI) Imperial	1) Meeting to discuss Stage 2 Program concerns scheduled for June 14, 2019 (see June 4, 2019 email, ROC2450).
2464	Email *	June 6, 2019	Two Row Archaeology (HDI) Imperial	1) HDI expressed concern regarding the removal of artifacts by Past Recovery without the involvement of HDI. HDI requested an investigation into this matter as well as an explanation. 2) Attachment to email: Pictures of artifact.
3034	Email *	June 7, 2019	Two Row Archaeology (HDI) Imperial	1) Imperial responded to HDI's concern about removal of artifacts without the involvement of HDI (see June 6, 2019 email, ROC2464). Imperial noted that the artifact was removed to prevent looting/loss of the important artifact. The location was recorded so the location could be assessed in further detail.
2470	Email	June 12, 2019	Two Row Archaeology (HDI) Imperial	1) Imperial provided the link to the Stage 2 Program mapping to HDI again (see June 5, 2019 email, ROC2460).
2473	Email	June 13, 2019	Two Row Archaeology (HDI) Imperial	1) Imperial provided a list of attendees for the June 14, 2019 meeting (see June 5, 2019 email, ROC3121).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2527	Meeting *	June 14, 2019	HCCC/HDI HDI Imperial MTCS Two Row Archaeology (HDI) ASI Heritage ERM Group Imperial Past Recovery	1) Meeting with HCCC/HDI and MTCS at the HDI office to discuss Stage 2 Program concerns. Topics discussed included: (a) methodology memo; (b) professional judgement; (c) other methods of assessment (besides trenching); (d) HDI monitor input; (e) Stage 1 Archaeology Report; (f) determining methodology for the Stage 2 Program; (g) standards and guidelines; (h) found artifacts; (i) Stage 3 sites; (j) Stage 2 reports and summaries; (k) field protocol. 2) Issues to be resolved: (a) capacity funding to review reports; (b) trenching as a method to deal with deeply buried topsoil; (c) intervals of STP survey; (d) HDI prefers to sit down with consultants and resolve concerns because HDI wants to do more work with consultants. 3) HCCC/HDI noted that Past Recovery and ASI Heritage are doing good field work, and they will reach out to MTCS to address issues with standards and guidelines. 4) HCCC/HDI to review the Stage 1 Archaeology Report and Stage 2 mapping (when provided) and identify areas to request intensification. [HDI did not provide comments on the report]
2519	Email *	June 18, 2019	HDI Two Row Archaeology (HDI) Imperial	1) Imperial will provide notes for the June 14, 2019 meeting soon (see ROC2527). 2) Imperial provided an update on the Leave to Construct process upcoming dates. A copy of the June 10, 2019 Procedural Order No. 2 was provided, along with a link to information on the hearing process. 3) Imperial provided information on the overall environmental permitting process, as well as permit-specific details required for the Project.
2476	Email *	June 20, 2019	HDI Imperial	1) Imperial provided information on the 2019 Environmental Field Program, and asked if HDI would like to provide a monitor for the program. 2) Attachment to email: 2019 Environmental Field Program scope of work.
2723	Email *	June 21, 2019	HDI HWN MCFN Six Nations Two Row Archaeology (HDI) Past Recovery	1) Past Recovery provided information on the field program reporting process, and the general methodology for how areas with high disturbance will be handled for the Stage 2 Program. 2) For WTFN4030, Past Recovery provided a detailed review of background information. 3) Attachments to email: (a) WPF Stage 2 in Disturbed Areas; (b) ERM Eastgate Parkway and Dixie Road WTFN4030 Information.
3022	Email	June 27, 2019	Two Row Archaeology (HDI) Imperial	1) HDI requested Imperial's assistance with resolving communications issues about the current Stage 2 Program locations.
2481	Email	June 28, 2019	Two Row Archaeology (HDI) Imperial	1) Imperial provided HDI with a copy of the crew planner to assist with communication/information issues in the field, noting that ERM provides regular crew planner updates and summaries of work completed during the previous week. 2) Attachment to email: June 21, 2019 crew planner.
3024	Email	June 28, 2019	HDI Imperial	1) Imperial asked if HDI would like to provide a monitor for the Environmental Field Program (see June 20, 2019 email, ROC2476).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3025	Email	July 2, 2019	HDI Imperial	1) HDI confirmed they are interested in participating in the Environmental Field Program (see June 28, 2019 email, ROC3024).
3026	Email	July 11, 2019	HDI ERM Group Imperial	1) ERM provided the schedule for the Environmental Field Program botanical surveys and fisheries work in late July and August, and requested HDI's availability to participate.
3027	Email	July 12, 2019	HDI ERM Group	1) HDI confirmed they will have participants available to participate in the botanical and fisheries surveys, and will provide contact names closer to the dates (see July 11, 2019 email, ROC3026).
Huron-Wendat Nation (HWN) <i>(includes contacts to July 23, 2019)</i>				
2001	Email	February 7, 2019	HWN Imperial	1) HWN provided the Draft Framework Agreement to Imperial for review.
2005	Email	February 8, 2019	HWN Imperial	1) Imperial confirmed receipt of the Draft Framework Agreement (see February 7, 2019 email, ROC2001), and will review and arrange a meeting to discuss if necessary. 2) Imperial noted that a link to, and hard copy of, the Environmental Report had been provided (see February 4, 2019 email), and Imperial offered reasonable funding to HWN to review the report. HWN accepted Imperial's offer to fund their review, and requested approval for the review funding. 3) Imperial is working on plans for the Stage 2 Program and will update HWN when a start date has been confirmed.
2006	Email	February 11, 2019	HWN Imperial	1) Imperial approved HWN's funding request to review the Environmental report (see February 8, 2019 email, ROC2005).
2014	Email	February 22, 2019	HWN Imperial	1) HWN had no concerns with the Environmental Report (see February 11, 2019 email, ROC2006), and asked if Imperial requires a letter stating this or if the email is sufficient.
2016	Email	February 25, 2019	HWN Imperial	1) Imperial requested a letter confirming HWN has no concerns with the Environmental Report (see February 22, 2019 email, ROC2014).
2467	Email	February 27, 2019	HWN ERM Group	1) ERM noted the new contact person for the Stage 2 Program. 2) ERM provided a revised 2019 Field Monitor Agreement and requested that HWN review. 3) Attachment to email: Field Monitor Agreement.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2019	Letter *	February 28, 2019	HWN Imperial	<p>1) HWN has reviewed the Environmental Report, and confirm they agree with the content and recommendations (see February 25, 2019 email, ROC2016, and February 4, 2019 email).</p> <p>2) As the archaeological studies have not yet been completed, HWN cannot confirm if their heritage will be impacted. HWN would like to be engaged in any archaeological field work and the associated reporting.</p> <p>3) HWN acknowledged Imperial's efforts to establish and maintain an effective relationship with HWN.</p> <p>4) Letter sent by email.</p>
2029	Email	March 15, 2019	HWN Imperial	<p>1) Imperial informed HWN that the WatFin Stage 2 Program is scheduled to start on April 2, 2019. The program will determine if there are archaeological resources within the planned project footprint. Information was provided on how the field work will be completed.</p> <p>2) Attachment to email: Crew planner (schedule).</p>
2032	Email	March 18, 2019	HWN Imperial	<p>1) Discussed the Stage 2 Program plan (see March 15, 2019 email, ROC2029).</p> <p>2) An updated Field Monitor Agreement will be provided soon (see February 27, 2019 email, ROC2467).</p>
2118	Email	March 25, 2019	HWN Imperial	<p>1) Imperial anticipates starting the Stage 2 Program on April 2, 2019 and requested confirmation of HWN participation (see March 15, 2019 email, ROC2029).</p>
2231	Email	April 4, 2019	HWN Imperial	<p>1) 1) Imperial provided a new tentative start date of April 16, 2019 for the Stage 2 Program (see March 25, 2019 email, ROC2118).</p>
2051	Email	April 11, 2019	HWN Imperial	<p>1) Imperial requested a meeting in Toronto to discuss the Project. HWN suggested May, and requested travel funding for the meeting.</p> <p>2) An updated Field Monitor Agreement will be provided soon (see March 18, 2019 email, ROC2032, and also ROC2001).</p>
2052	Email	April 12, 2019	HWN Imperial	<p>1) Imperial confirmed they will provide travel funding for the meeting (see April 11, 2019 email, ROC2051).</p>
2054	Email	April 15, 2019	HWN Imperial	<p>1) Imperial requested to a call to discuss the Field Monitor Agreement (see April 11, 2019 email, ROC2051).</p>
2057	Email *	April 16, 2019	HWN Imperial	<p>1) Imperial provided an updated Stage 1 Archaeology Report for review and comments, noting the changes made since the draft initially provided on September 27, 2018. Imperial offered funding to HWN to review the report.</p> <p>2) File sent via large file transfer.</p> <p>3) Attachments to email: (a) Stage 1 archaeology report, memo summarizing changes made; (b) Stage 1 archaeological assessment redacted maps.</p>
2062	Email	April 18, 2019	HWN Imperial	<p>1) Imperial expects to provide the updated Field Monitor Agreement the following week (see April 18, 2019 phone call, ROC3181).</p>

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3181	Phone Call	April 18, 2019	HWN Imperial	1) Discussed the Field Monitor Agreement (see April 15, 2019 email, ROC2054).
2063	Email	April 22, 2019	HWN Imperial	1) Imperial summarized the changes to the Field Monitor Agreement discussed (see April 18, 2019 call, ROC3181), and requested that HWN confirm agreement with the changes.
3075	Email	April 22, 2019	HWN ERM Group	1) Imperial plans to start the Stage 2 Program on April 25, 2019 and noted that a small crew will conduct an assessment of conditions to determine when to start the full program.
2064	Email	April 23, 2019	HWN ERM Group	1) HWN agreed with the changes to the Field Monitor Agreement, after which ERM provided the updated Agreement for review (see April 22, 2019 email, ROC2063). 2) Attachment to email: Field Monitor Agreement.
2066	Email *	April 23, 2019	HWN Imperial	1) HWN reviewed the Stage 1 Archaeology Report and has no issue with the assessment of archaeological potential (see April 16, 2019 email, ROC2057). Some suggested changes were provided.
2468	Email	April 24, 2019	HWN ERM Group Imperial	1) Discussed the Field Monitor Agreement by email and phone (see May 21, 2019 email, ROC2104). ERM provided an updated Field Monitor Agreement for HWN to review. 2) Attachment to email: Field Monitor Agreement. 3) HWN returned the signed agreement. 4) Attachment to email: Signed Field Monitor Agreement.
2072	Email	April 25, 2019	HWN Imperial	1) Discussed rescheduling the May 9, 2019 meeting by phone and email; date left as is (see April 11, 2019 email, ROC2051). 2) Meeting to be held in Toronto. Agenda to include protection of the Parson's site and the Draft Project-Specific Agreement (formerly known as the Draft Framework Agreement) with Imperial.
2076	Email *	April 25, 2019	HWN Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the Ontario Energy Board (OEB) for the Leave to Construct application filing, and provided information about the Project and how to become an intervenor. Imperial will mail a hard copy of the application to the HWN office. 2) Attachment: OEB Notice of Hearing.
N/A	Field Studies	April, May, June, July 2019	HDI HWN MCFN Six Nations	Beginning April 25, 2019 and continuing to date, First Nations monitors have been involved in the Stage 2 Program to: participate in and observe field work, ensure community perspectives and priorities are considered, and facilitate input into the Project. Additionally, monitors have been invited to participate in the pending Environmental Field Program. Imperial's contractor is facilitating monitor participation in these programs and there is regular communication between Imperial's contractor and the First Nations to coordinate this participation.
2079	Email	April 30, 2019	HWN Imperial	1) HWN requested the location for the May 9, 2019 meeting (see April 25, 2019 email, ROC2072).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2240	Email	April 30, 2019	Haudenosaunee Development Institute (HDI) HWN Mississaugas of the Credit First Nation (MCFN) Six Nations of the Grand River Stantec Two Row Archaeology (HDI) ASI Heritage ERM Group Imperial Past Recovery	1) Imperial noted the Stage 2 Program work has been delayed until May 7, 2019 due to weather and that logistics will be provided prior to that date.
2080	Email	May 1, 2019	HDI HWN MCFN Six Nations Stantec Two Row Archaeology (HDI) ASI Heritage ERM Group Imperial Past Recovery	1) Imperial provided the crew planner schedule and number of archaeologists for the Stage 2 Program work. 2) Attachment to email: Crew planner. [This document is provided weekly, and is not captured as individual ROCs going forward.]
2081	Email	May 1, 2019	HWN ERM Group Imperial	1) ERM provided an invite for the May 9, 2019 meeting at the ERM Toronto office (see April 30, 2019 email, ROC2079).
2091	Email *	May 8, 2019	HDI HWN MCFN Six Nations Two Row Archaeology (HDI) ERM Group Imperial	1) Imperial confirmed the qualifications of the trained archaeologists involved in the Stage 2 Program.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2456	Meeting *	May 9, 2019	HWN ERM Group Imperial Past Recovery	<p>1) Meeting with HWN in Toronto to discuss the Project and the Parson's Site. Topics discussed included: (a) significance of the Parson's Site; (b) consultation relating to the site; (c) reasons for not removing the old pipeline; (d) using monitors during pre-construction activities; and (e) emergency response.</p> <p>2) Parson's Site: HWN requested that Imperial allow HWN to provide input on all plans for the Parson's Site. ERM to review the location of a proposed borehole, current footprint and previous assessments in relation to the site.</p> <p>3) Old Pipeline: Imperial described the process of deactivating the pipeline. HWN would like to see a long-term monitoring strategy.</p> <p>4) HWN requested that monitors be present for the Stage 2 Program as well as for placement of matting at, and drilling of, boreholes.</p> <p>5) Emergency Response Plan: HWN requested a copy of Imperial's Emergency Response Plan. Imperial to provide this information.</p> <p>6) Concerns related to: (a) Parson's Site is vital to the preservation of HWN history and cultural heritage; (b) aging pipelines in the corridor; (c) emergency response in the event of a pipeline leak during operations.</p> <p>7) The Draft Project-Specific Agreement was discussed in "Part 2" of the meeting (details not captured in the meeting notes).</p>
2099	Email *	May 15, 2019	HWN Imperial	1) Imperial provided an update on the breakdown of field crew staff for the Stage 2 Program moving forward.
2748	Email *	May 17, 2019	HWN Imperial	1) HWN confirmed they are comfortable with the strategy proposed for the Stage 2 Program field crew staff breakdown (see May 15, 2019 email, ROC2099).
2104	Email	May 21, 2019	HWN Imperial	<p>1) HWN provided the Draft Project-Specific Agreement to Imperial for review (see May 9, 2019 meeting, ROC2456). Imperial will review as soon as possible.</p> <p>2) Attachment to email: Draft Project-Specific Agreement.</p>
2110	Email	May 24, 2019	HWN Imperial	<p>1) Methodology concerns were raised at Site #4108. Imperial informed HWN they will be resolved in the field.</p> <p>2) Imperial will provide the Parson's Site mapping and May 9, 2019 meeting notes soon (see ROC2456).</p>
2113	Email *	May 30, 2019	HWN Imperial	<p>1) Imperial requested a call to discuss HWN's concerns with Stage 2 Program methodology on May 29, 2019.</p> <p>2) Call held later that day to discuss the methodology concerns. HWN is fine with the current methodology being employed by the Field Director for parcel assessment.</p>
2462	Email	June 5, 2019	HWN Imperial	1) Imperial provided a link to the mapping showing the areas to be ploughed and test pitted for the Stage 2 Program and noted that regular summary reports will be produced to track progress/completion of parcels.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2716	Email	June 11, 2019	HWN Imperial	1) HWN requested an update on Imperial's review of the Draft Project-Specific Agreement (see May 21, 2019 email, ROC2104).
2472	Email *	June 12, 2019	HWN Imperial	1) Imperial provided notes for the May 9, 2019 meeting (see ROC2456). 2) Imperial provided the Parson's Site overlay map requested by HWN at the meeting. 3) Imperial provided links to videos discussing Imperial's emergency response process discussed at the meeting. 4) Attachments to email: (a) May 9, 2019 meeting notes; (b) Parson's Site overlay map.
2718	Email	June 12, 2019	HWN Imperial	1) HWN requested a meeting when they are in Toronto on June 19, 2019 to discuss the Draft Project-Specific Agreement (see June 11, 2019 email, ROC2716). 2) Imperial responded that the Draft Project-Specific Agreement is being reviewed internally. Imperial is not available that day, and suggested a conference call in the near future instead.
2721	Email	June 18, 2019	HWN Imperial	1) HWN had no changes for the May 9, 2019 meeting notes provided on June 12, 2019 (see ROC2472). 2) HWN requested an update on the Draft Project-Specific Agreement review (see June 12, 2019 email, ROC2718).
2722	Email *	June 18, 2019	HWN Imperial	1) Imperial provided an overview of the environmental permitting process, permit-specific details required for the Project and an update on the Leave to Construct Application progress. 2) Attachments to email: (a) Environmental Permitting Overview; (b) OEB Procedural Order No. 2.
2475	Email *	June 20, 2019	HWN Imperial	1) HWN will be taking an intervenor role in the OEB process and requested Imperial's consent to their participation. Call to discuss scheduled for June 26, 2019.
2478	Email *	June 20, 2019	HWN Imperial	1) Imperial provided information on the 2019 Environmental Field Program, and asked if HWN would like to provide a monitor for the program. 2) Attachment to email: 2019 Environmental Field Program scope of work.
2723	Email *	June 21, 2019	HDI HWN MCFN Six Nations Two Row Archaeology (HDI) Past Recovery	1) Past Recovery provided information on the field program reporting process, and the general methodology for how areas with high disturbance will be handled for the Stage 2 Program. 2) For WTFN4030, Past Recovery provided a detailed review of background information. 3) Attachments to email: (a) WPF Stage 2 in Disturbed Areas; (b) ERM Eastgate Parkway and Dixie Road WTFN4030 Information.
2489	Phone Call	June 25, 2019	HWN Imperial	1) Imperial called to discuss HWN's decision to be an intervenor (see June 20, 2019 email, ROC2475) as well as the Draft Project-Specific Agreement that Imperial is reviewing (see June 18, 2019 email, ROC2721). Imperial noted they have no objection to HWN requesting intervenor status. 2) In a follow-up email, Imperial reiterated that they understand the importance of the protection and preservation of HWN's culture and heritage, and want to ensure that adequate answers are provided to HWN's questions. Imperial also offered guidance on the regulatory process for project approval.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2724	Email	June 25, 2019	HWN Imperial	1) HWN does not have any staff available to participate in the 2019 Environmental Field Program (see June 20, 2019 email, ROC2478).
2725	Email *	June 25, 2019	HWN Past Recovery	1) HWN confirmed they are comfortable with the general methodology for high-disturbance areas provided (see June 21, 2019 email, ROC2723).
2756	Letter *	June 25, 2019	OKT Law (HWN) OEB	1) HWN submitted an application to the OEB to become an intervenor, noting they have an interest in the Application because the project has significant potential to negatively impact the integrity of their archaeological and burial sites, including the Parson's Site.
2726	Email	June 26, 2019	HWN Imperial	1) HWN is open to a conference call in the next days to discuss the Draft Project-Specific Agreement (see June 25, 2019 call, ROC2489).
3164	Phone Call	June 26, 2019	HWN Imperial	1) Discussed HWN's request for intervenor status (see June 25, 2019 letter, ROC2756). Imperial is not opposed to HWN participating in the hearing and will continue to progress engagement, including the Draft Project-Specific Agreement.
2750	Letter *	June 27, 2019	OKT Law (HWN) OEB	1) The OEB responded to HWN's June 25, 2019 request for intervenor status (see ROC2489), noting that Imperial did not object to HWN's request. Although the request was received after the deadline, the OEB is satisfied that HWN has a "substantial interest" in the proceeding and has accepted HWN as an intervenor. 2) HWN's concerns relate to potential impacts on archeological and burial sites. 3) Letter sent by email. 4) Attachment to email: Procedural Order No. 2.
2757	Email	July 2, 2019	HWN Imperial	1) HWN requested a date to discuss the Draft Project-Specific Agreement (see June 26, 2019 email, ROC2726).
2758	Email *	July 3, 2019	HWN Imperial	1) HWN noted that a number of artifacts have been recovered at the Parson's Site (Borehole 136), and that the site may be in the middle of a longhouse. HWN will need to bring the situation to the Chief's Council so they can discuss next steps, and requested that archaeological field work at the Parson's Site be put on hold pending further discussion with Imperial. 2) Concerns: (a) protection of found artifacts at the Parson's Site. 3) Attachment to email: June 5, 2015 HWN Band Council Resolution regarding protection of historic sites.
2759	Email	July 3, 2019	HWN Imperial	1) Imperial is drafting a response to the Draft Project-Specific Agreement, and expects to provide it later in the week (see July 2, 2019 email, ROC2757).
3168	Phone Call	July 4, 2019	HWN Imperial	1) Imperial advised HWN that the borehole assessments at the Parson's Site will be on hold until a decision is made regarding the location, necessity and/or next stage assessment (see July 3, 2019 email, ROC2758). HWN agreed, and requested to review any strategy before one is implemented.
3175	Email	July 4, 2019	HWN Imperial	1) HWN looks forward to receiving Imperial's comments on the Draft Project-Specific Agreement (see July 3, 2019 email, ROC2759).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2761	Letter	July 5, 2019	HWN Imperial	1) Imperial responded to the Draft Project-Specific Agreement provided by HWN on May 21, 2019 (see ROC2104). Comments related to archaeology, excavated artifacts, mitigation, ERP, business and training opportunities, community investment, other financial considerations and the liaison committee. Imperial requested dates that HWN is available to discuss details of the agreement. 2) Letter sent by email (by Kelly Williams).
2763	Email	July 8, 2019	HWN Imperial	1) HWN agreed to provide potential dates to discuss the Draft Project-Specific Agreement (see July 5, 2019 letter, ROC2761).
2765	Email	July 11, 2019	HWN Imperial	1) HWN asked if Imperial would be willing to travel to Wendake for the meeting; Imperial agreed (see July 8, 2019 email, ROC2763). HWN to propose potential dates.
2767	Email *	July 15, 2019	HWN Imperial	1) HWN suggested meeting on August 5, 2019 to discuss the Draft Project-Specific Agreement (see July 11, 2019 email, ROC2765).
2768	Email	July 16, 2019	HWN Imperial	1) Imperial is not available to meet the week of August 5, 2019, and suggested the following week instead (see July 15, 2019 email, ROC2767).
3171	Email	July 18, 2019	HWN Imperial	1) HWN is not available the week of August 12, 2019 (see July 16, 2019 email, ROC2768), and suggested the week of July 29, 2019. Imperial suggested August 1, 2019.
3178	Email	July 19, 2019	HWN Imperial	1) Meeting scheduled for August 1, 2019 at the HWN office (see July 18, 2019 email, ROC3171).
Mississaugas of the Credit First Nation (MCFN)				
2002	Email *	February 8, 2019	MCFN Imperial	1) In follow-up to the draft Environmental Report provided to MCFN on February 4, 2019, Imperial offered reasonable funding to MCFN to review the report, and asked that MCFN send any comments on the report directly to Imperial. 2) Imperial noted the Environmental Report is part of the Leave to Construct application Imperial plans to submit to the OEB the week of February 22, 2019. 3) Imperial will provide an update on the Stage 2 Archaeology Program in the near future so that MCFN can allocate resources.
2008	Email	February 13, 2019	MCFN Imperial	1) MCFN confirmed they will review the Environmental Report (see February 8, 2019 email, ROC2002). Discussed who any technical questions should be sent to, as well as the funding process for reviewing the report.
2011	Email *	February 21, 2019	MCFN Imperial	1) MCFN provided questions about the draft Environmental Report (see February 8, 2019 email, ROC2002). Questions related to: (a) pipeline replacements; (b) alternative routes; (c) mitigation of cumulative effects on Species at Risk; (d) source water protection plans; (e) opportunities for traditional harvesting; (f) request to look at the Environmental Protection and Monitoring Plans. 2) Imperial will respond to MCFN's questions in the near future, and offered a meeting to discuss.
2013	Email	February 22, 2019	MCFN Imperial	1) MCFN acknowledged the Environmental Report feedback and accepted the offer of a meeting to discuss (see February 21, 2019 email, ROC2011).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2015	Email	February 25, 2019	MCFN Imperial	1) Imperial agreed to contact MCFN to coordinate a meeting date and provide preliminary information (see February 22, 2019 email, ROC2013).
2018	Email	February 27, 2019	MCFN Imperial	1) Imperial suggested meeting the week of March 18, 2019 and requested a specific date (see February 25, 2019 email, ROC2015).
2020	Email	March 4, 2019	MCFN Imperial	1) Imperial requested a meeting date (see February 27, 2019 email, ROC2018).
2023	Email *	March 12, 2019	MCFN Imperial	1) Imperial responded to MCFN's questions on the Environmental Report (see February 21, 2019 email, ROC2011). Responses related to: (a) pipeline replacements; (b) alternative routes; (c) mitigation of cumulative effects on Species at Risk; (d) source water protection plans; (e) opportunities for traditional harvesting; (f) request to look at the Environmental Protection and Monitoring Plans.
2024	Email	March 13, 2019	MCFN Imperial	1) MCFN suggested April 10, 2019 for the meeting to discuss the Project (see March 4, 2019 email, ROC2020).
2025	Email	March 15, 2019	MCFN Imperial	1) Agreed on April 17, 2019 for the meeting (see March 13, 2019 email, ROC2024).
2028	Email	March 15, 2019	MCFN Imperial	1) Imperial informed MCFN that the Stage 2 Program is scheduled to start on April 2, 2019. The program will determine if there are archaeological resources within the planned project footprint. Information was provided on how the field work will be completed. 2) Attachment to email: Crew planner (schedule).
2031	Email	March 18, 2019	MCFN Imperial	1) Imperial confirmed the meeting on April 17, 2019 (see March 15, 2019 email, ROC2025). Imperial will provide an agenda in advance of the meeting.
2034	Letter *	March 19, 2019	MCFN Imperial	1) MCFN expressed their concerns regarding the Stage 2 Program (see March 18, 2019 email, ROC2028). MCFN requested that their template for Field Liaison Representative (FLR) participation be used as the basis of the agreement between MCFN and Imperial for participation in the Stage 2 program. 2) Concerns related to: (a) lack of adequate notice for FLR participation, which increases the chance for poor archaeological work; (b) lack of consideration of MCFN's needs and capacity; (c) adequacy of archaeological training for the team; (d) unsuitable weather conditions.
2035	Email	March 20, 2019	MCFN Imperial	1) Imperial requested confirmation of the March 29, 2019 meeting to discuss the Stage 2 Program.
3130	Email	March 22, 2019	MCFN Imperial	1) MCFN confirmed the March 29, 2019 meeting (see March 20, 2019 email, ROC2035).
2117	Email	March 25, 2019	MCFN Imperial	1) Imperial anticipates starting the Stage 2 Program on April 2, 2019 and requested confirmation of MCFN participation (see March 15, 2019 email, ROC2028).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2037	Email	March 26, 2019	MCFN Imperial	1) As the appropriate MCFN representatives will not be available to discuss an agreement and the Project at the March 29, 2019 meeting, MCFN requested that the March 29, 2019 meeting focus on the Stage 2 Program concerns and logistics, and that a second meeting be scheduled to discuss any other items. 2) Imperial suggested the other topics could be addressed at the meeting already scheduled for April 17, 2019 (see March 18, 2019 email, ROC2031). MCFN agreed to discuss
2040	Email	March 27, 2019	MCFN Imperial	1) Imperial provided the draft March 29, 2019 meeting agenda and requested any additions (see March 26, 2019 email, ROC2037).
2041	Email	March 28, 2019	MCFN Imperial	1) MCFN added two attendees to the March 29, 2019 meeting agenda (see March 27, 2019 email, ROC2040).
2042	Meeting *	March 29, 2019	MCFN ASI Heritage ERM Group Imperial Past Recovery	1) Meeting with MCFN at the MCFN office to discuss MCFN's concerns about the Stage 2 Program (see March 19, 2019 letter, ROC2034). Topics discussed included: (a) Stage 2 Program process and schedule; (b) Stage 2 report; (c) Stage 3 plans. 2) Stage 2 Program: MCFN requested reasoning for not testing in the utility locates/disturbed areas, if a situation arises. MCFN requested further discussion on the use of horizontal Directional Drilling, including for Parson's Site and Lake Medad. Imperial will provide a copy of the archaeology chance find protocol when available. MCFN requested that ERM provide the size of field crews so they can be mobilized according to the ratios in the FLR Agreement. 3) Stage 2 Report: The Stage 2 report will be prepared concurrently with the Stage 2 Program. Imperial and MCFN to discuss the appropriate timelines for MCFN report reviews. MCFN requested information on site-specific Stage 3 field work plans as early as possible. 4) Imperial to provide the environmental study schedule to MCFN. 5) Imperial and MCFN agreed to discuss an agreement further at the April 17, 2019 meeting.
2043	Email	April 1, 2019	MCFN Imperial	1) Imperial informed MCFN that the tentative start date for the Stage 2 Program is April 9, 2019. 2) Imperial will contact MCFN to discuss the FLR Agreement.
2044	Email	April 1, 2019	MCFN Imperial	1) Imperial provided the FLR Agreement from the previous year, valid until June 18, 2019. A new agreement will be discussed at the April 17, 2019 meeting (see April 1, 2019 email ROC2043). 2) Attachment to email: FLR Agreement.
2046	Email	April 2, 2019	MCFN Imperial	1) MCFN confirmed that although the FLR Agreement from last year is valid until June 18, 2019 (see April 1, 2019 email, ROC2044), a new agreement will need to be executed in June.
2230	Email	April 4, 2019	MCFN Imperial	1) Imperial provided a new tentative start date of April 16, 2019 for the Stage 2 Program (see April 1, 2019 email, ROC2043).
2049	Email	April 9, 2019	MCFN Imperial	1) Imperial requested confirmation of the April 17, 2019 meeting. Imperial suggested agenda items, and asked if there is anything else MCFN would like to discuss (see March 26, 2019 email, ROC2037).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2056	Email *	April 16, 2019	MCFN Imperial	1) Imperial provided an updated draft Stage 1 Archaeology Report for review and comments, and a summary of changes made after MCFN reviewed the report(see March 19, 2019 email, ROC2034). 2) Attachment to email: Updated Stage 1 Archaeology Report.
2059	Email *	April 17, 2019	MCFN Wood E&IS	1) Discussed MCFN's concerns about Imperial's integrity digs (not part of the Project, but pertain to the current Stage 2 Program).
2060	Meeting *	April 17, 2019	MCFN OKT Law (MCFN) Imperial	1) Meeting with MCFN at the MCFN office to discuss the Project. Topics discussed included: (a) Environmental Report; (b) source water protection; (c) waterbody rights for MCFN; (d) FLR training; (e) regulatory update. 2) Source Water Protection: Imperial to confirm that recent changes to source water protection do not require changes to the Project. 3) Waterbody Rights: MCFN is currently seeking rights to waterbodies. Imperial to provide a watercourse crossing table to MCFN. 4) FLR Training: MCFN requested that Imperial cover the costs of training for Field Liaison Representatives and staff in pipeline horizontal directional drilling. MCFN to provide a proposal for this (training is not specific to this project). 5) Regulatory Permits: MCFN requested a list of the project regulatory permits required and how they fit into the overall process. 6) Legal Contact: MCFN requested contact information for Imperial's legal counsel.
2061	Email *	April 18, 2019	MCFN Imperial	1) Imperial confirmed they will follow up on the outstanding items from the last two meetings (see April 17, 2019 meeting, ROC2060). 2) Imperial noted that although concerns raised for the Integrity Digs and CRVP are independent of the Waterdown to Finch Project, they can be used to increase collaboration and communication to improve the archaeology processes overall.
2236	Email	April 18, 2019	MCFN ERM Group Imperial	1) Imperial plans to start the Stage 2 Program on April 25, 2019 and noted that a small crew will conduct an assessment of conditions to determine when to start the full program (see April 4, 2019 email, ROC2230).
2070	Email	April 22, 2019	MCFN Imperial	1) Imperial requested, and MCFN provided, the contact information for their legal counsel (see April 17, 2019 meeting, ROC2060).
3131	Email	April 23, 2019	OKT Law (MCFN) Imperial	1) Agreed to a phone call on April 25, 2019 to discuss the FLR Agreement.
2071	Phone Call	April 25, 2019	OKT Law (MCFN) Imperial	1) Discussed an FLR Agreement between MCFN and Imperial vs. MCFN and Imperial's subconsultant. Imperial suggested separate contracts with Imperial about the Project and with the subconsultant about the Stage 2 Program administrative matters. MCFN to consider internally and respond.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2075	Email *	April 25, 2019	MCFN Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and provided information about the Project and how to become an intervenor. Imperial will drop off a hard copy of the application to the MCFN office.
N/A	Field Studies	April, May, June, July 2019	HDI HWN MCFN Six Nations	Beginning April 25, 2019 and continuing to date, First Nations monitors have been involved in the Stage 2 Program to: participate in and observe field work, ensure community perspectives and priorities are considered, and facilitate input into the Project. Additionally, monitors have been invited to participate in the pending Environmental Field Program. Imperial's contractor is facilitating monitor participation in these programs and there is regular communication between Imperial's contractor and the First Nations to coordinate this participation.
2240	Email	April 30, 2019	Haudenosaunee Development Institute (HDI) Huron-Wendat Nation (HWN) MCFN Six Nations of the Grand River Stantec Two Row Archaeology (HDI) ASI Heritage ERM Group Imperial Past Recovery	1) Imperial noted the Stage 2 Program work has been delayed until May 7, 2019 due to weather and that logistics will be provided prior to that date.
2080	Email	May 1, 2019	HDI HWN MCFN Six Nations Stantec Two Row Archaeology (HDI) ASI Heritage ERM Group Imperial Past Recovery	1) Imperial provided the crew planner schedule and number of archaeologists for the Stage 2 Program work. 2) Attachment to email: Crew planner. [This document is provided weekly, and is not captured as individual ROCs going forward.]
2087	Email *	May 3, 2019	MCFN Imperial	1) MCFN notified Imperial of a number of concerns preventing effective participation in the Project. 2) Concerns related to: (a) scheduling issues; (b) a need for further information on field crew logistics and roles; (c) lack field director decision making.
2089	Email	May 6, 2019	MCFN Imperial	1) Imperial thanked MCFN for raising concerns regarding effective participation in the Project (see May 3, 2019 email, ROC2087).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3133	Email	May 6, 2019	OKT Law (MCFN) Imperial	1) Imperial asked if MCFN had considered having separate agreements for the Project (Framework Agreement) and Stage 2 Program subconsultant (FLR Agreement) (see April 23, 2019 call, ROC2071).
2091	Email *	May 8, 2019	HDI HWN MCFN Six Nations Two Row Archaeology (HDI) ERM Group Imperial	1) MCFN expressed concerns regarding archaeological staff conducting Stage 2 Program work and numbers onsite. 2) Imperial confirmed the qualifications of the trained archaeologists involved in the Stage 2 Program.
3134	Email	May 8, 2019	OKT Law (MCFN) Imperial	1) MCFN has had an initial discussion on the concept of two separate agreements (see May 6, 2019 email, ROC3133). MCFN will follow up with Imperial the following week.
3135	Email	May 13, 2019	OKT Law (MCFN) Imperial	1) MCFN asked to extend the FLR Agreement for an additional month to allow for negotiation of a new arrangement for the FLR and process agreements (see May 8, 2019 email, ROC3134).
2097	Email *	May 15, 2019	MCFN Imperial	1) Imperial updated MCFN on the breakdown of field crew staff for the Stage 2 Program moving forward (see May 8, 2019 email, ROC2091). 2) Imperial will respond regarding the concerns raised, as well as the March and April meeting summaries. MCFN agreed to reserve further comments until Imperial's response is received.
2102	Letter *	May 16, 2019	MCFN Imperial	1) Imperial responded to MCFN's March 19, 2019 letter regarding the Stage 2 Program (see ROC2034). Responses related to: (a) lack of adequate notice, which increases the chance for poor archaeological work; (b) lack of consideration of MCFN's needs and capacity; (c) adequacy of archaeological training for the team; (d) unsuitable weather conditions.
2103	Email *	May 17, 2019	MCFN Imperial	1) Imperial responded to MCFN's May 3 2019 email of concerns about the Stage 2 Program (see ROC2087). Responses related to: (a) scheduling issues; (b) a need for further information on field crew logistics and roles; (c) lack of field director decision making. 2) Imperial will be implementing changes to the field crew for the Stage 2 Program. 3) Imperial provided copies of the March 29, 2019 and April 17, 2019 meeting notes, and May 16, 2019 Imperial response letter (see ROCs 2042, 2060, 2102). 4) Attachments to email: (a) May 16, 2019 letter (b) March 29, 2019 meeting notes; (c) April 17, 2019 meeting notes.
2109	Email	May 24, 2019	MCFN Imperial	1) Methodology concerns were raised at Site #4108. Imperial noted they will be resolved in the field by the archaeologists and the monitors.
3136	Email	May 27, 2019	OKT Law (MCFN) Imperial	1) Imperial asked if MCFN has given consideration to two agreements (see May 13, 2019 email, ROC3135). MCFN is discussing internally and will get back to Imperial.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2457	Email *	May 28, 2019	MCFN Imperial	1) MCFN provided Imperial with a list of outstanding Stage 2 Program concerns that need to be addressed (see May 17, 2019 email, ROC2103, and also March 29, 2019 meeting, ROC2042). 2) Concerns related to: (a) logistics; (b) ASI field crew; (c) ERM interference in Past Recovery's decision making; (d) delegation of licensee obligations; (e) need for up-to-date field maps and methodology; (f) interpersonal field relations.
3137	Email *	May 28, 2019	MCFN Ontario Ministry of Tourism, Culture and Sport (MTCS)	1) MCFN requested clarification of a licensee's obligations to delegate their in-field responsibility to another subcontractor of their client. Imperial has noted that Past Recovery is not delegating responsibility to ASI Heritage, but that Past Recovery will maintain responsibility to ensure MTCS and Past Recovery standards are met. [Imperial was not copied on any response from MTCS]
3138	Email	May 30, 2019	OKT Law (MCFN) Imperial	1) Discussed having a separate FLR and Framework Agreements (see May 27, 2019 email, ROC3136). MCFN will draft a Framework Agreement for Imperial to review, and noted that some changes may be required to the FLR Agreement.
2458	Email	June 4, 2019	MCFN Imperial	1) Imperial inquired about the date of the next MCFN open house.
2461	Email	June 5, 2019	MCFN Imperial	1) Imperial provided a link to mapping for the areas to be ploughed and test pitted for the Stage 2 Program. 2) Imperial will be issuing regular summary reports moving forward.
3139	Email	June 6, 2019	OKT Law (MCFN) Imperial	1) Imperial requested confirmation that MCFN is willing to extend the FLR Agreement while the Framework Agreement is being drafted (see May 13, 2019 email, ROC3135). MCFN to confirm.
3140	Email	June 6, 2019	MCFN Imperial	1) MCFN open house scheduled for June 20, 2019 (see June 4, 2019 email, ROC2458). Imperial will participate.
3141	Email	June 8, 2019	OKT Law (MCFN) Imperial	1) MCFN agreed to extend the FLR Agreement while the Framework Agreement is being negotiated (see June 6, 2019 email, ROC3139).
2466	Email *	June 10, 2019	MCFN Imperial	1) Imperial provided an update on the outstanding concerns previously raised by MCFN (see May 28, 2019 email, ROC2457, and also ROC2097). Imperial believes that all items have been addressed (decision making and interpersonal field relations), are being addressed on an ongoing basis (logistics and field crew) or are in the process of being addressed (delegation of licensee). 2) Imperial has provided updated field maps (see June 5, 2019 email, ROC2461), and weekly summaries will be provided going forward. Imperial asked if the Stage 2 Program weekly summaries contain the information MCFN is looking for.
3142	Email	June 10, 2019	MCFN Imperial	1) MCFN and Imperial confirmed extension of the FLR Agreement by one month (see June 8, 2019 email, ROC3141).
2471	Email	June 12, 2019	MCFN ERM Group	1) ERM provided the 2018 FLR Agreement and asked if it could be extended for an additional year. 2) Attachment to email: 2018 FLR Agreement.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3143	Email	June 13, 2019	MCFN ERM Group	1) MCFN requested that ERM issue a letter extending the current FLR Agreement for one month (see June 12, 2019 email, ROC2471). ERM agreed to issue the letter.
2485	Email *	June 14, 2019	MCFN Imperial	1) MCFN provided a list of information they would like to receive with the Stage 2 Program weekly updates (see June 10, 2019 email, ROC2466).
2486	Email	June 14, 2019	MCFN Imperial	1) MCFN confirmed the date of, and Imperial's booth for, the June 20, 2019 open house (see June 6, 2019 email, ROC3140).
2487	Email *	June 17, 2019	MCFN Imperial	1) Imperial provided an overview of the environmental permitting process, permit-specific details required for the Project, and an update on the Leave to Construct Application progress. Questions raised regarding the Source Water Protection Plans were also addressed (see April 17, 2019 meeting, ROC2060). 2) Attachments to email: (a) Environmental permitting overview; (b)OEB Procedural Order No. 2.
2474	Email	June 18, 2019	MCFN Imperial	1) MCFN postponed their June 20, 2019 open house due to weather; it will be rescheduled to July.
3144	Letter	June 19, 2019	MCFN ERM Group	1) ERM provided a letter extending the FLR Agreement to July 18, 2019 (see June 13, 2019 email, ROC3143). 2) Letter sent by email. 3) Attachment to letter: June 18, 2018 FLR Agreement.
2477	Email *	June 20, 2019	MCFN Imperial	1) Imperial provided information on the 2019 Environmental Field Program, and asked if MCFN would like to provide a monitor for the program. 2) Attachment to email: 2019 Environmental Field Program scope of work.
3145	Letter	June 20, 2019	MCFN ERM Group	1) MCFN acknowledged receipt of the letter from ERM for the extension of the FLR Agreement, and is in agreement with the extension (see June 19, 2019 letter, ROC3144). 2) Letter sent by email.
2723	Email *	June 21, 2019	HDI HWN MCFN Six Nations Two Row Archaeology (HDI) Past Recovery	1) Past Recovery provided information on the field program reporting process, and the general methodology for how areas with high disturbance will be handled for the Stage 2 Program. 2) For WTFN4030, Past Recovery provided a detailed review of background information. 3) Attachments to email: (a) WPF Stage 2 in Disturbed Areas; (b) ERM Eastgate Parkway and Dixie Road WTFN4030 Information.
3146	Email	June 21, 2019	MCFN Imperial	1) MCFN asked when the participants for the Environmental Field Program will be required (see June 20, 2019 email, ROC2477). Imperial advised that ERM will contact MCFN to discuss details.
3147	Email	June 25, 2019	OKT Law (MCFN) Imperial	1) Imperial requested an update on the draft Framework Agreement (see May 30, 2019 email, ROC3138). MCFN is working towards approval of the agreement.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2480	Email	June 28, 2019	MCFN Imperial	1) MCFN confirmed participation in the Environmental Field Program, requested the Environmental Field Program schedule, and asked that ERM contact them to arrange for MCFN participation (see June 20, 2019 email, ROC2477). 2) Imperial confirmed that ERM will contact MCFN to discuss participation and logistics. 3) Attachment to email: 2019 Environmental Field Program scope of work.
3148	Email	June 28, 2019	MCFN Imperial	1) MCFN requested the link to the ploughing mapping for the Stage 2 Program as the link expired and the files had not yet been downloaded (see June 5, 2019 email, ROC2461).
Six Nations of the Grand River				
2003	Email *	February 8, 2019	Six Nations Imperial	1) In follow-up to the draft Environmental Report provided to Six Nations on February 4, 2019, Imperial offered reasonable funding to Six Nations to review the report, and asked that Six Nations send any comments on the report directly to Imperial. 2) Imperial noted the Environmental Report is part of the Leave to Construct application Imperial plans to submit to the OEB the week of February 22, 2019. A copy of the Letter of Intent to the OEB was provided. 3) Imperial will provide an update on the Stage 2 Archaeology Program in the near future so that Six Nations can allocate resources. 4) Attachment to email: December 20, 2018 Letter of Intent to the OEB.
2007	Email	February 11, 2019	Six Nations Imperial	1) Six Nations provided the hand delivery information for the Environmental Report (see February 8, 2019 email, ROC2003).
2009	Drop-in Visit/Casual Meeting	February 14, 2019	Six Nations Imperial	1) Imperial hand delivered the Environmental Report (see February 11, 2019 email, ROC2007).
2030	Email	March 15, 2019	Six Nations Imperial	1) Imperial informed MCFN that the Stage 2 Program is scheduled to start on April 2, 2019. The program will determine if there are archaeological resources within the planned project footprint. Information was provided on how the field work will be completed. 2) Attachment to email: Crew planner (schedule).
2119	Email	March 25, 2019	Six Nations Imperial	1) Imperial anticipates starting the Stage 2 Program on April 2, 2019 and requested confirmation of Six Nations participation (see March 15, 2019 email, ROC2030).
2038	Email	March 26, 2019	Six Nations Imperial	1) Six Nations provided the Field Monitor Agreement for signature. Imperial noted that ERM will sign and return to Six Nations.
2121	Email	April 1, 2019	Six Nations Imperial	1) Imperial noted April 9, 2019 as the tentative start date for the Stage 2 Program (see March 25, 2019 email, ROC2119).
2232	Email	April 4, 2019	Six Nations Imperial	1) Imperial provided a new tentative start date of April 16, 2019 for the Stage 2 Program (see April 1, 2019 email, ROC2121).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2053	Email	April 12, 2019	Six Nations Imperial	1) Six Nations requested the signed Field Monitor Agreement (see March 26, 2019 email, ROC2038). Imperial will follow up on status.
2234	Email	April 12, 2019	Six Nations Imperial	1) Imperial provided a new tentative start date of April 23, 2019 for the Stage 2 Program (see April 4, 2019 email, ROC2232).
2058	Email *	April 16, 2019	Six Nations Imperial	1) Imperial provided an updated draft Stage 1 Archaeology Report for review and comments, noting the changes made since the draft initially provided on September 27, 2018. Imperial offered funding to Six Nations to review the report. 2) File sent via large file transfer. 3) Attachments to email: (a) Stage 1 archaeology report, memo summarizing changes made; (b) Stage 1 archaeological assessment redacted maps.
2237	Email	April 18, 2019	Six Nations Imperial	1) Imperial plans to start the Stage 2 Program on April 25, 2019 and noted that a small crew will conduct an assessment of conditions to determine when to start the full program (see April 12, 2019 email, ROC2234).
2065	Email *	April 23, 2019	Six Nations ERM Group Imperial	1) Imperial provided clarification on the three separate archaeological agreements in progress (Integrity Program digs with Wood, CRVP with Wood and Waterdown to Finch Stage 2 Program Field Monitor Agreement with ERM) (see April 12, 2019 email, ROC2053). Discussed details for the Field Monitor Agreement with Imperial and ERM. ERM requested a phone call to discuss the agreement further. 2) Attachment to email: 2019 Field Monitor Agreement.
2069	Email	April 24, 2019	Six Nations ERM Group Imperial	1) Six Nations provided additional details regarding the Field Monitor Agreement, and a copy of the agreement for signature (see April 23, 2019 email, ROC2065). 2) Attachment to email: 2019 Field Monitor Agreement.
2073	Email	April 25, 2019	Six Nations Imperial	1) Imperial provided the signed Field Monitor Agreement (see April 24, 2019 email, ROC2069). 2) Six Nations requested a hard copy of the consultation report submitted as part of the Leave to Construct application. Imperial will drop off one the following day. 3) Attachment to email: Signed Field Monitor Agreement.
2077	Email *	April 25, 2019	Six Nations Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and provided information about the Project and how to become an intervenor. Imperial will drop off a hard copy of the application to the SN office (see February 8, 2019 email, ROC2003). 2) Attachment to email: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
N/A	Field Studies	April, May, June, July 2019	HDI HWN MCFN Six Nations	Beginning April 25, 2019 and continuing to date, First Nations monitors have been involved in the Stage 2 Program to: participate in and observe field work, ensure community perspectives and priorities are considered, and facilitate input into the Project. Additionally, monitors have been invited to participate in the pending Environmental Field Program. Imperial's contractor is facilitating monitor participation in these programs and there is regular communication between Imperial's contractor and the First Nations to coordinate this participation.
2078	Email	April 29, 2019	Six Nations Imperial	1) Six Nations provided the executed Field Monitor Agreement (see April 25, 2019 email, ROC2073). 2) Attachment to email: Executed 2019 Field Monitor Agreement.
2240	Email	April 30, 2019	Haudenosaunee Development Institute (HDI) Huron-Wendat Nation (HWN) Mississaugas of the Credit First Nation (MCFN) Six Nations Stantec Two Row Archaeology (HDI) ASI Heritage ERM Group Imperial Past Recovery Archaeological Services Inc.	1) Imperial noted the Stage 2 Program work has been delayed until May 7, 2019 due to weather and that logistics will be provided prior to that date (see April 18, 2019 email, ROC2237).
2080	Email	May 1, 2019	Haudenosaunee Development Institute (HDI) Huron-Wendat Nation (HWN) Mississaugas of the Credit First Nation (MCFN) Six Nations Stantec Two Row Archaeology (HDI) ASI Heritage ERM Group Imperial Past Recovery Archaeological Services Inc.	1) Imperial provided the crew planner schedule and number of archaeologists for the Stage 2 Program work. 2) Attachment to email: Crew planner. [This document is provided weekly, and is not captured as individual ROCs going forward.]

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2469	Email	May 1, 2019	Six Nations ERM Group	1) ERM requested that Six Nations review and sign the Field Monitor Agreement (see April 29, 2019 email, ROC2078).
2091	Email *	May 8, 2019	Haudenosaunee Development Institute (HDI) Huron-Wendat Nation (HWN) Mississaugas of the Credit First Nation (MCFN) Six Nations Two Row Archaeology (HDI) ERM Group Imperial	1) Six Nations expressed concerns regarding archaeological staff conducting Stage 2 Program work and numbers onsite.
2100	Email *	May 15, 2019	Six Nations Imperial Past Recovery Archaeological Services Inc.	1) Imperial updated Six Nations on the breakdown of field crew staff for the Stage 2 Program moving forward (see May 8, 2019 email, ROC2091).
2111	Email	May 24, 2019	Six Nations Imperial	1) Methodology concerns were raised at Site #4108. Imperial noted they will be resolved in the field by the archaeologists and the monitors.
2484	Email *	May 30, 2019	Six Nations ERM Group	1) Discussed concerns regarding logistics and treatment of field crews during the Stage 2 Program. ERM acknowledged the concerns and explained how the situation had been dealt with.
2463	Email	June 5, 2019	Six Nations Imperial	1) Imperial provided a link to mapping for the areas to be ploughed and test pitted for the Stage 2 Program. 2) Imperial will be issuing regular summary reports moving forward.
2488	Email *	June 18, 2019	Six Nations Imperial	1) Imperial provided an overview of the environmental permitting process, permit-specific details required for the Project and an update on the Leave to Construct Application progress. 2) Attachments to email: (a) Environmental Permitting Overview; (b) OEB Procedural Order No. 2.
2479	Email *	June 20, 2019	Six Nations Imperial	1) Imperial provided information on the 2019 Environmental Field Program, and asked if Six Nations would like to provide a monitor for the program. [no response to date] 2) Attachment to email: 2019 Environmental Field Program scope of work.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2723	Email *	June 21, 2019	Haudenosaunee Development Institute (HDI) Huron-Wendat Nation (HWN) Mississaugas of the Credit First Nation (MCFN) Six Nations fa Two Row Archaeology (HDI) Past Recovery Archaeological Services Inc.	1) Past Recovery provided information on the field program reporting process, and the general methodology for how areas with high disturbance will be handled for the Stage 2 Program. 2) For WTFN4030, Past Recovery provided a detailed review of background information. 3) Attachments to email: (a) WPF Stage 2 in Disturbed Areas; (b) ERM Eastgate Parkway and Dixie Road WTFN4030 Information.
2482	Email	June 28, 2019	Six Nations ERM Group	1) Discussed Six Nations' concern with a consultant employee in the Stage 2 Program. 2) Six Nations asked if they are to be notified in advance of work in high-potential areas along the corridor. Imperial confirmed the areas are noted on the weekly schedules provided to Six Nations, and asked if there were specific areas Six Nations is concerned about that require further discussion. [no response]
2483	Email	June 29, 2019	Six Nations ERM Group	1) ERM provided the revised 2019 Field Monitor Agreement to Six Nations, requesting that it be signed and returned to ERM (see May 1, 2019 email, ROC2469). 2) Attachment to email: 2019 Field Monitor Agreement.
Métis Nation of Ontario (MNO)				
2021	Email	March 5, 2019	MNO, Imperial	1) MNO confirmed interest in a meeting to discuss the Project, and will provide potential meeting dates.
2026	Email	March 15, 2019	MNO, Imperial	1) MNO provided potential meeting dates (see March 5, 2019 email, ROC2021). Imperial will get back to MNO with a confirmed date.
2033	Email	March 19, 2019	MNO, Imperial	1) Imperial confirmed availability for a meeting on April 6, 2019 and requested a draft budget for the meeting (see March 15, 2019 email, ROC2026).
2036	Email	March 21, 2019	MNO, Imperial	1) MNO will confirm the April 6, 2019 meeting, and will provide a draft budget for the meeting (see March 19, 2019 email, ROC2033).
2045	Email	April 1, 2019	MNO, Imperial	1) Imperial requested, and MNO provided, confirmation of the April 6, 2019 meeting, providing a time and location (see March 21, 2019 email, ROC2036). 2) A draft budget for the meeting was provided.
2048	Email	April 4, 2019	MNO, Imperial	1) Imperial provided attendees for the April 6, 2019 meeting (see April 1, 2019 email, ROC2045).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2229	Meeting *	April 6, 2019	MNO, Imperial	<p>1) Meeting with MNO at the MNO office to introduce the Project. MNA also provided information on their organization and activities. Topics discussed included: (a) operations; (b) potential construction effects on groundwater; (c) Imperial's position on carbon reduction; (d) Imperial's community investment programs.</p> <p>2) Carbon Reduction: MNO requested information on Imperial's position on carbon pricing and reducing environmental impacts. Imperial agreed to provide.</p> <p>3) MNO requested information on potential community investment opportunities for MNO participation. Imperial agreed to provide.</p> <p>4) MNO requested information on potential project construction opportunities. Imperial will provide as they become available.</p>
2050	Email	April 9, 2019	MNO, Imperial	<p>1) Imperial confirmed they will provide responses to MNO's questions and notes for the April 6, 2019 meeting (see ROC2229).</p>
2459	Email	June 4, 2019	MNO, Imperial	<p>1) Imperial provided notes for the April 6, 2019 meeting and requested any comments (see ROC2229).</p> <p>2) Imperial provided information on their energy and carbon strategies (see April 6, 2019 meeting, ROC2229).</p> <p>3) Attachments to email: (a) April 6, 2019 meeting notes; (b) Imperial Energy and Carbon Summary document.</p>
3129	Courier *	April 25, 2019	MNO, Imperial	<p>1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and provided information about the Project and how to become an intervenor. Imperial will drop off a hard copy of the application to the MNO office.</p> <p>2) Notice sent by courier; delivery confirmed.</p>

* Supporting documents provided

List of Acronyms

HCCC	Haudenosaunee Confederacy of Chiefs Council
HDI	Haudenosaunee Development Institute
HWN	Huron-Wendat Nation
Imperial	Imperial Oil Limited
MCFN	Mississaugas of the Credit First Nation
MNO	Métis Nation of Ontario
MTCS	Ontario Ministry of Tourism, Culture and Sport
OEB	Ontario Energy Board
Past Recovery	Past Recovery Archaeological Services Inc.
Six Nations	Six Nations of the Grand River

Table 2 – Regulators and Stakeholders

This table has been organized chronologically by stakeholder type then stakeholder.

ROC #	Event Type *	Date	Participating Organizations	Summary
REGULATORS				
Conservation Halton				
2631	Email	February 1, 2019	Conservation Halton ERM Group	1) ERM informed Conservation Halton that Imperial intends to file a Leave to Construct Application for the Project with the OEB and that a pre-application filing of the draft Environmental Report has been submitted. ERM provided a link to the draft Environmental Report and provided contact information for feedback.
2127	Email	February 7, 2019	Conservation Halton ERM Group	1) Conservation Halton requested, and was provided with, two hard copies of the draft Environmental Report for review (see February 1 email, ROC2631).
2201	Email *	March 19, 2019	Conservation Halton Imperial	1) Conservation Halton provided comments on the draft Environmental Report (see February 1, 2019 email, ROC2631). 2) Conservation Halton recommended that the Environmental Report be revised and resubmitted for further review in advance of the finalization. 3) Attachment to email: Environmental Report comments.
3300	Email	March 25, 2019	Conservation Halton Imperial	1) Imperial acknowledged receipt of the draft Environmental Report comments (see March 19, 2019 email, ROC2201). 2) Imperial noted that after the three-week review period specified by the OEB, the report was finalized and submitted to the OEB along with the Leave to Construct Application. 3) Although Conservation Halton's comments were not included in the version submitted to the OEB, Imperial will ensure that the comments are reviewed and considered, and Imperial will look to address the feedback as part of the Development Permit to be submitted to Conservation Halton. 4) Imperial offered to meet to discuss the application further and schedule a field visit.
2213	Meeting	April 18, 2019	Conservation Halton Imperial	1) Meeting with Conservation Halton to discuss the permitting process. 2) In follow-up to the meeting, Conservation Halton suggested, by email, areas that can be separated for the Conservation Halton permits and noted that they will compile pre-application files and checklists of what information is required for each application. Conservation Halton requested that Imperial keep them apprised of setting up site visits on areas planned for open cutting in late May/early June 2019.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2342	Email *	April 24, 2019	Conservation Halton Imperial	1) Imperial provided the Coordinator, Regulations Programs with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2295	Email	April 25, 2019	Conservation Halton Imperial	1) Conservation Halton provided a reviewed version of the environmental features maps (see April 18, 2019 email, ROC2213). 2) Attachments to email: Environmental features maps.
2303	Email	April 30, 2019	Conservation Halton Imperial	1) Imperial noted that a concordance table, a waterbody crossing table and the timing of a potential field visit will be shared with Conservation Halton (see April 18, 2019 email, ROC2213). 2) Imperial suggested a meeting date of May 21 or May 27, 2019.
2538	Letter *	May 7, 2019	Conservation Halton ERM Group	1) ERM provided: (a) an updated watercourse and wetland crossing list; (b) a list of watercourses and wetlands within Conservation Halton regulated areas; (c) footprint shapefiles for watercourse and wetland crossing locations; (d) a concordance table and Conservation Halton permit application schedule. 2) ERM requested that Conservation Halton review the list, table and schedule. 3) Attachments to letter: (a) permit application watercourse and wetland crossing lists; (b) permit application concordance and application schedule.
2674	Letter	May 8, 2019	Conservation Halton Imperial	1) Conservation Halton requested funding for a source water protection study to reassess the risk posed by the pipeline to the drinking water sources in the Halton-Hamilton Source Protection Region.
2545	Email	May 8, 2019	Conservation Halton ERM Group	1) A field site visit was confirmed for Friday June 14, 2019 with Conservation Halton (see May 7, 2019 email, ROC2538). 2) ERM offered to meet to review the submitted package and mapping in advance of Imperial filing their application.
2690	Meeting	May 16, 2019	Conservation Halton ERM Group	1) Meeting with Conservation Halton at the Conservation Halton office in Burlington to discuss the crossing review, construction application and site visit. 2) Conservation Halton provided locations they would like to see during the site visit.
2686	Email	May 16, 2019	Conservation Halton ERM Group	1) Conservation Halton agreed with the assessment of regulated crossings and which require permits (see May 16, 2019 meeting, ROC2690). 2) Conservation Halton aligned with the schedule and staged applications.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2695	Email	May 21, 2019	Conservation Halton Imperial	1) Imperial acknowledged receipt of Conservation Halton's source water protection funding request (see May 8, 2019 letter, ROC2674), and will respond soon.
2959	Email	June 12, 2019	Conservation Halton ERM Group	1) ERM provided the site visit itinerary for June 14, 2019, sent a reminder of personal protective equipment requirements and confirmed site visit logistics.
2961	Email	June 12, 2019	Conservation Halton Imperial	1) Imperial inquired about availability to discuss Conservation Halton's drinking water source study request (see May 21, 2019 email, ROC2695).
2962	Email	June 12, 2019	Conservation Halton CanACRE	1) CanACRE provided notification of non-intrusive environmental surveys. A description of the surveys was provided. 2) Attachments to email: (a) Permit to Enter Land; (b) Survey Access Tracker Spreadsheet; (c) Scope of Work.
2987	Site Visit *	June 14, 2019	Conservation Halton ERM Group Imperial Universal Pegasus International	1) Imperial hosted a site visit of representative pipeline watercourse crossings. Topics discussed: (a) depth of cover; (b) construction specifications; (c) wetlands; (d) reporting requirements; (e) revegetation; (f) wildlife habitat; (g) erosion control measures; (h) restoration and construction timelines.
2997	Email	June 17, 2019	Conservation Halton Imperial	1) Imperial thanked Conservation Halton for participating in the June 14, 2019 site visit (see ROC2987) and confirmed they will be applying for all Conservation Halton permits simultaneously.
3013	Conference Call	June 20, 2019	Conservation Halton Imperial ERM Group	1) Conference call with Conservation Halton to discuss the source water protection model update request (see May 8 2019 letter, ROC2674). Topics discussed included: (a) current model and assumptions; (b) information required to update the model with Imperial's new pipeline; and (c) Imperial's permit submission plans (Technical Standards and Safety Authority). 2) Following the call, Conservation Halton emailed information regarding the modelling efforts to date to identify the risks that pipelines pose to the drinking water sources (see June 12, 2019 email, ROC2961).
Credit Valley Conservation Authority (CVCA)				
2335	Email *	April 24, 2019	CVCA Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2304	Email	April 30, 2019	CVCA Imperial	1) Imperial noted that a concordance table, a waterbody crossing table and the timing of a potential field visit will be shared with the CVCA.
2539	Email *	May 7, 2019	CVCA ERM Group	1) ERM provided: (a) an updated watercourse and wetland crossing list; (b) a list of watercourses and wetlands within CVCA regulated areas; (c) footprint shapefiles for watercourse and wetland crossing locations; (d) a concordance table and CVCA permit application schedule. 2) ERM also proposed a site visit sometime during June 2-8, or June 9-15, 2019 (see April 30, 2019 email, ROC2304). 3) Attachments to letter: (a) permit application watercourse and wetland crossing lists; (b) permit application concordance and application schedule.
2543	Email	May 8, 2019	CVCA ERM Group	1) CVCA confirmed availability for a meeting on June 7, 2019 (see May 7, 2019 email, ROC2539).
2555	Email	May 10, 2019	CVCA ERM Group	1) CVCA requested that the previously sent shapefiles be sent as a pdf (see May 7, 2019 email, ROC2539).
2558	Email	May 14, 2019	CVCA ERM Group	1) ERM provided the requested PDF version of the regulated area maps (see May 10, 2019 email, ROC2555). 2) Attachment to email: Watercourse and Wetland Crossing Maps.
2934	Site Visit *	June 7, 2019	CVCA ERM Group Imperial Universal Pegasus International	1) Imperial hosted a site visit of representative pipeline watercourse crossings within CVCA jurisdiction (see May 16, 2019 email, ROC2688.) Topics discussed: (a) wetlands and watercourses; (b) wildlife habitat; (c) revegetation; (d) construction methodology; (e) application submission. 2) CVCA to send terrestrial crayfish researcher contacts.
2938	Email	June 10, 2019	CVCA Imperial	1) Imperial thanked CVCA for joining them on the site visit (see ROC2934) and informed them that notes from the site visit will be distributed.
2939	Email	June 10, 2019	CVCA ERM Group	1) CVCA provided contact information for crayfish experts (see June 7, 2019 site visit, ROC2934).
2952	Email *	June 11, 2019	CVCA ERM Group	1) ERM provided an explanation for why many of the crossings are classified as fish bearing and provided available Mullet and Sawmill Creek data (see June 7, 2019 site visit, ROC2934).
2963	Phone Call	June 12, 2019	CVCA ERM Group	1) Discussed CVCA's knowledge on fish-bearing status for the watercourses to be crossed by the Project (see June 11, 2019, ROC2952).
3006	Email	June 19, 2019	CVCA ERM Group	1) Imperial provided notes for the June 7, 2019 site visit (ROC2934).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3023	Email *	June 24, 2019	CVCA ERM Group	1) The CVCA provided comments on the site visit notes (see June 19, 2019 email, ROC3006).
3042	Email	June 26, 2019	CVCA ERM Group	1) ERM confirmed they will work with the project engineers to provide ecological and other rationale for the planned watercourse/wetland crossing installation methods (see June 24, 2019 email, ROC3023). 2) ERM inquired about availability for a site visit to the Credit River tie-in planned workspace.
3054	Email	June 27, 2019	CVCA Imperial	1) Imperial indicated they are planning to submit the permit application in the coming week and inquired about the best form of submission.
Environment and Climate Change Canada				
2337	Email *	April 24, 2019	Environment and Climate Change Canada Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
Fisheries and Oceans Canada				
2336	Email *	April 24, 2019	Fisheries and Oceans Canada (DFO) Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
Halton Environment Network				
2432	Email *	April 25, 2019	Halton Environment Network Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
Hamilton Conservation Authority				
2332	Email *	April 24, 2019	Hamilton Conservation Authority Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2296	Email	April 25, 2019	Hamilton Conservation Authority Imperial	1) The Hamilton Conservation Authority resent information provided to Imperial on August 24, 2018. 2) The Hamilton Conservation Authority provided comments on the draft Environmental Report. 3) Attachments to email: JPG Base Map, PDF Permit Application Form, PDF Permit Application Checklist.
2301	Email	April 30, 2019	Hamilton Conservation Authority Imperial	1) Imperial noted that a concordance table, a waterbody crossing table and the timing of a potential field visit will be shared with the Hamilton Conservation Authority.
2540	Letter *	May 7, 2019	Hamilton Conservation Authority ERM Group	1) ERM provided: (a) an updated watercourse and wetland crossing list; (b) a list of watercourses and wetlands within Hamilton Conservation Authority regulated areas; (c) footprint shapefiles for watercourse and wetland crossing locations; (d) a concordance table and Hamilton Conservation Authority permit application schedule. 2) ERM also proposed a site visit sometime during June 2-8, or June 9-15, 2019 (see April 30, 2019 email, ROC2304). 3) Attachments to letter: (a) permit application watercourse and wetland crossing lists; (b) permit application concordance and application schedule.
3003	Email	June 18, 2019	Hamilton Conservation Authority ERM Group	1) The Hamilton Conservation Authority informed ERM that they do not have additional aquatic information and confirmed an error in the mapped PSW data (see June 14, 2019 site visit, ROC2987).
3053	Email	June 27, 2019	Hamilton Conservation Authority Imperial	1) Imperial inquired if the Hamilton Conservation Authority would like to receive the current permit application in the near term as a draft and the supplemental submission required later in the year.
3062	Email	June 28, 2019	Hamilton Conservation Authority Imperial	1) The Hamilton Conservation Authority informed Imperial that they do not recognize draft permit application submissions and will consider all submissions as formal submissions (see June 27, 2019 email, ROC3053).
Infrastructure Ontario				
2561	Email	February 1, 2019	Infrastructure Ontario ERM Group	1) ERM informed Infrastructure Ontario that Imperial intends to file a Leave to Construct Application for the Project with the OEB and that a pre-application filing of the draft Environmental Report has been submitted. ERM provided a link to the draft Environmental Report and provided contact information for feedback.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2159	Email	February 20, 2019	City of Mississauga Hydro One Networks Inc. Infrastructure Ontario CanACRE	1) CanACRE provided notes for the January 17, 2019 meeting, including an addendum regarding discussions about the City of Toronto and Metrolinx. 2) Attachment to email: January 17, 2019 meeting notes.
2344	Email *	April 24, 2019	CBRE Land Bank Management Team Infrastructure Ontario Imperial	1) Imperial provided the Infrastructure Ontario Project Coordinator and the CBRE Land Management Team with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2345	Email	April 24, 2019	Infrastructure Ontario Imperial	1) Imperial provided the Director, Land Transactions – Hydro Corridor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2300	Email	April 29, 2019	Infrastructure Ontario Imperial	1) Infrastructure Ontario requested a timing update on when the draft Consultation and Documentation Report for the Category B Environmental Assessment will be ready for review.
2305	Email	April 30, 2019	Infrastructure Ontario Imperial	1) Imperial informed Infrastructure Ontario that the draft Consultation and Documentation report is currently under Internal review and will be submitted in June (see April 29, 2019 email, ROC2300). 2) Imperial inquired if Infrastructure Ontario would like to set a meeting to discuss the report.
2524	Email	May 31, 2019	Infrastructure Ontario Imperial	1) Imperial provided an update regarding the status of the Class Environmental Assessment.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2715	Conference Call	June 5, 2019	Infrastructure Ontario Imperial	<p>1) Conference call with Infrastructure Ontario to discuss the Phase 1 Environmental Site Assessment (ESA) and Class Environmental Assessment (EA), archaeology reports, and duty to consult.</p> <p>2) Process: Imperial can provide the Phase 1 ESA and draft Class EA at any time. An initial review may be conducted, but will not be finalized until the Stage 2 Archaeology Report is submitted and archaeology work is deemed complete. Following the review will be a public comment period, after which Infrastructure Ontario will confirm if Imperial can undertake the Project.</p> <p>3) Archaeology Reports: Discussed submission requirements for the Stage 2 Archaeology Report. Imperial will provide the Stage 1 Archaeology Report to Infrastructure Ontario once it has been reviewed by MTCS. Infrastructure Ontario archaeologists will work with the Ontario Ministry of Government and Consumer Services (MGCS) to determine if Duty to Consult is triggered.</p> <p>4) A summary of the call was provided by email that day.</p>
2927	Email	June 6, 2019	Infrastructure Ontario Imperial	<p>1) Infrastructure Ontario responded to the questions from the June 5, 2019 conference call notes (see June 5, 2019 call, ROC2715).</p>
2936	Email	June 10, 2019	Infrastructure Ontario Imperial	<p>1) Imperial provided the Consultation Report submitted to MENDM (Exhibit G of the Leave to Construct Application) on April 29, 2019 (ROC2298) (see June 5, 2019 email, ROC2715).</p> <p>2) Imperial requested, and Infrastructure Ontario agreed, to set up a meeting following the submission of the Phase 1 ESA and Class EA Consultation and Documentation report.</p> <p>3) Infrastructure Ontario noted that they may not involve MGCS until the Stage 2 Program is complete.</p> <p>4) Attachment to email: Consultation Report.</p>
3030	Letter	June 24, 2019	Infrastructure Ontario Imperial	<p>1) Imperial submitted the Category B Consultation and Documentation Report and completed Project Information Form as notification of the Class EA undertaking.</p> <p>2) Attachment to letter: (a) Consultation and Documentation Report; (b) Project Information Form; (c) Phase 1 ESA.</p>
3043	Email	June 26, 2019	Infrastructure Ontario Imperial	<p>1) Imperial provided a signed version of the Class EA Consultation and Documentation report (see June 24, 2019 email, ROC3030).</p>

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
Niagara Escarpment Commission				
2362	Email *	April 24, 2019	Niagara Escarpment Commission Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2968	Email	June 12, 2019	Niagara Escarpment Commission Imperial	1) Imperial requested that the Niagara Escarpment Commission confirm permit submission requirements and inquired if a meeting would be necessary.
3000	Email	June 17, 2019	Niagara Escarpment Commission Imperial	1) The Niagara Escarpment Commission requested that the permit submission be sent directly and provided a list of required documents to support the submission (see June 12, 2019 email, ROC2968). The Niagara Escarpment Commission also provided notification instructions. 2) Imperial requested a call to discuss timing of the permit submission.
3032	Meeting *	June 24, 2019	Niagara Escarpment Commission ERM Group Imperial	1) Meeting with the Niagara Escarpment Commission to provide an update on project planning and the Development Permit application, and discuss content/other planned regulatory application expectations. Topics discussed: (a) Niagara Escarpment plan; (b) groundwater impacts; (c) application submission and review; (d) Stage 2 Program; (e) vegetation management; (f) land access and appeals.
3045	Email	June 26, 2019	Niagara Escarpment Commission ERM Group	1) ERM provided the June 24, 2019 meeting notes for review (see ROC3032). 2) Attachment to email: June 24, 2019 meeting notes.
3056	Email *	June 27, 2019	Niagara Escarpment Commission ERM Group Imperial	1) The Niagara Escarpment Commission provided additional comments on the meeting notes (see June 26, 2019 email, ROC3045). 2) Attachment to email: Revised June 14, 2019 meeting notes.
Ontario Energy Board (OEB)				
2164	Email	February 21, 2019	OEB Imperial	1) Imperial notified the OEB on their intent to submit the Leave to Construct Application along with their proposed method of submission. OEB confirmed their preferred method of submission for the Leave to Construct Application and other documents moving forward.
3287	Application	February 22, 2019	OEB Imperial	1) Imperial submitted the Leave to Construct Application filing for the Waterdown to Finch Project. Two hard copies of the Application were also provided by courier.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3286	Report	February 22, 2019	OEB Imperial	1) Imperial submitted the Environmental Report to the OEB.
2175	Email	February 27, 2019	OEB Imperial	1) OEB updated the Legal Counsel as listed in the Project Leave to Construct Application following a request from Imperial.
2178	Letter	February 28, 2019	OEB Imperial	1) OEB acknowledged receipt of the February 22, 2019 Leave to Construct Application (see ROC3287).
2188	Email	March 7, 2019	OEB Imperial	1) Imperial requested a call with the OEB on March 8, 2019 to discuss the OEB's request to provide updates related to project purpose/need.
2191	Phone Call	March 8, 2019	OEB Imperial	1) Discussed the OEB's request to provide updates related to project purpose/need. Imperial will provide an updated Exhibit C and figure the following week for the OEB to review. 2) Imperial later emailed a summary of the call.
2194	Email	March 13, 2019	OEB Imperial	1) Imperial provided the OEB with a proposed update to Exhibit C addressing the purpose/need for the Project, as well as the proposed additional graphic. Imperial also inquired if Exhibit B could be updated with an additional letter of support at the same time as the Exhibit C update (see March 8, 2019 call, ROC2191). 2) Attachment to email: Updated Exhibit C.
2196	Email	March 14, 2019	OEB Imperial	1) The OEB provided Imperial with a list of the required edits to make the project map suitable for Notice of Hearing. Imperial provided the OEB with the updated maps for review and inquired if the Letter of Direction will contain details for the newspaper publication (see March 13, 2019 email, ROC2194).
2195	Email	March 14, 2019	OEB Imperial	1) The OEB accepted Imperial's suggested update to Exhibit C and proposed a few minor changes. Imperial confirmed that they will file Exhibits B and C at the same time (see March 14, 2019 email, ROC2194).
2198	Letter	March 15, 2019	OEB Imperial	1) Imperial submitted updated evidence for Exhibits B and C (see February 22, 2019 application, ROC3287, and also ROC2195). Two hard copies of the updated exhibits were also provided. 2) Letter and attachments sent by email and courier. 2) Attachments to letter: Updated Application Exhibits B and C.
2199	Email	March 15, 2019	OEB Imperial	1) OEB confirmed the project map had been updated correctly and informed Imperial that instructions to publish the Notice will be provided once the Notice is issued (see March 14, 2019 email, ROC2196).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3288	Letter	March 15, 2019	OEB Imperial	1) Imperial submitted updated evidence for Exhibits B and C (see February 22, 2019 application, ROC3287). 2) Attachments to letter: Updated Application Exhibits B and C.
2203	Letter	March 19, 2019	OEB Imperial	1) OEB noted their preliminary review of the Application is complete and they will commence the official review and communicate next steps (see February 28, 2019 letter, ROC2178).
3288	Letter	April 11, 2019	OEB Imperial	1) Letter of Direction. The OEB has issued a Notice of Hearing, and directed Imperial to serve notice of the Application to the noted parties. 2) Attachment to letter: OEB Notice of Hearing.
2208	Email	April 15, 2019	OEB Imperial	1) Imperial inquired if OEB supported their approach for circulating the Leave to Construct evidence. This includes the dissemination of the Notice in both official languages, with electronic copies of the application and evidence instead of hard copies to most stakeholders (see March 15, 2019 email, ROC2198).
3275	Letter	April 15, 2019	Hydro One OEB	1) Hydro One submitted an application to the OEB to become an intervenor, noting they have an interest in the application because of the potential impact of the new pipeline on existing Hydro One transmission and distribution lines.
2210	Email	April 16, 2019	OEB Imperial	1) OEB provided direction for Imperial's approach for circulating the Leave to Construct evidence. This included sending electronic copies of the application and evidence instead of hard copies to most stakeholders (see April 15, 2019 email, ROC2208).
2214	Email	April 18, 2019	OEB Imperial	1) OEB confirmed the updated notification approach, provided additional information regarding prospective intervenors and noted that there will be no revisions to the Letter of Direction (see April 16, 2019 email, ROC2210).
2292	Email	April 24, 2019	OEB Imperial	1) OEB provided a standard procedure list of the next steps following the May 6, 2019 deadline for intervenors (see April 23, 2019 email, ROC2287).
2511	Email	May 2, 2019	OEB Imperial	1) Imperial notified the OEB that they have completed all notifications to landowners, tenants, encumbrancers, utility and rail companies, OPCC members, Indigenous communities and others regarding the Leave to Construct Application and are gathering proof of service. 2) Imperial inquired about the delivery requirements for undeliverable or wrong addresses notifications.
2565	Letter	May 3, 2019	City of Toronto OEB	1) The City of Toronto submitted an application to the OEB to become an intervenor, noting they have an interest in the Application because of the potential project impacts on infrastructure, lands and waters within its jurisdiction.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2566	Letter	May 3, 2019	OEB Landowner 1	1) The Estate Trustees submitted an application to the OEB to become an intervenor, noting they have an interest in the Application because the Project will: (a) cause damage to the subject property; (b) create adverse impacts to the enjoyment of the property; (c) impact safety and liability; (d) create traffic and vehicular movement conflicts; (e) create noise, dust and vibration impacts; (f) impact the ability to sale the property and the property title.
2567	Letter	May 6, 2019	City of Mississauga OEB	1) The City of Mississauga submitted an application to the OEB to become an intervenor, noting they have an interest in the Application because the Project may have: (a) effects on the local environment, city infrastructure, residents and businesses; (b) potential for a spill affecting residents, infrastructure and the environment; (c) need for ongoing maintenance and inspection, and emergency response plans. 2) Letter sent by email.
2536	Email	May 7, 2019	OEB Imperial	1) Imperial followed up regarding proof service and notifications (see May 2, 2019 email, ROC2511).
2537	Email	May 7, 2019	OEB Imperial	1) The OEB informed Imperial that they have contacted the Associate Registrar and will provide an answer to their inquiry (see May 2, 2019 email, ROC2511).
2548	Email	May 8, 2019	OEB Imperial	1) Imperial confirmed a number of undeliverable notices based on title search. Imperial will add language to the affidavit cover letter to specify Imperial had attempted to serve these on a best efforts basis, and will add details about the methodology used for attempted delivery (see May 7, 2019 email, ROC2537).
2551	Email	May 9, 2019	OEB CanACRE ERM Group Imperial	1) CanACRE requested, and OEB confirmed, a call on May 9, 2019 discuss the Proof of Service for the undelivered packages and the affidavit requirement (see May 7, 2019 email, ROC2537).
2554	Email	May 10, 2019	OEB Imperial	1) Discussed the process for undeliverable packages and Proof of Service for the affidavit requirements (see May 9, 2019 email, ROC2551). 2) OEB requested a timeline for undeliverable packages and Proof of Service for the affidavit requirements.
2557	Email	May 13, 2019	OEB Imperial	1) Imperial provided a timeline of undeliverable packages and Proof of Service for the affidavit requirements (see May 10, 2019 email, ROC2554).
2559	Email	May 14, 2019	OEB Imperial	1) Imperial provided proposed language to address the undeliverable notifications of the affidavit for review (see May 13, 2019 email, ROC2557).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3290	Letter	May 15, 2019	OEB Imperial	1) The OEB expects Imperial to file an affidavit confirming service by May 24, 2019, and will hold Imperial's application in abeyance until the affidavit is filed.
2684	Letter	May 15, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Toronto Enbridge Gas Inc. GTAA City of Mississauga Landowner 1 OEB Imperial	1) The OEB notified the intervenors that Imperial expects to file an affidavit confirming service by May 24, 2019, and that the OEB will continue processing the Application once Imperial's affidavit is received.
2699	Letter	May 24, 2019	OEB Imperial	1) Imperial provided the confidential and redacted Affidavit of Service (see May 15, 2019 letter, ROC2684). 2) Affidavit submitted electronically and by courier. 3) Letter sent by email and courier.
3291	Letter	May 29, 2019	City of Hamilton OEB	1) The City of Hamilton submitted an application to the OEB to become an intervenor, noting they have an interest in the application because approximately 3.5 km of pipeline extend through City of Hamilton lands, and the City is concerned about potential impacts on natural heritage, source water protection and corridor management. [The City of Hamilton subsequently withdrew their intervenor status on July 9, 2019; acknowledged by the OEB on July 10, 2019.]
3292	Letter	May 29, 2019	OEB Imperial	1) Imperial provided updated evidence for Exhibit A (see February 22, 2019 application, ROC3287). 2) Letter sent by courier and email. 3) Attachment to letter: updated Exhibit A.
2729	Letter	May 31, 2019	Halton Region OEB	1) The Region of Halton submitted an application to the OEB to become an intervenor, noting that they have a direct interest in the Application because approximately 22.5 km of the proposed pipeline will be located on lands under Halton Region's jurisdiction.
3294	Email	May 31, 2019	OEB Imperial	1) The OEB provided Procedural Order No. 1, which sets out the timelines for the process. 2) Attachment to email: Procedural Order No. 1.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2505	Email	June 4, 2019	OEB Imperial	1) Imperial informed the Board Secretary that there is no objection to the intervenor request submitted by the Region of Halton (see May 31, 2019 letter, ROC2729).
2795	Letter	June 4, 2019	OEB Region of Peel	1) The Region of Peel submitted an application to the OEB to become an intervenor, noting they have an interest in the Application because certain sections of the proposed pipeline will be located in the Region and the construction and operation of the pipeline will affect municipal infrastructure.
2501	Email	June 5, 2019	OEB Imperial	1) Imperial informed the Board Secretary of the OEB that there is no objection to the intervenor request submitted by the Region of Peel (see June 4, 2019 letter, ROC2795).
2502	Letter	June 5, 2019	OEB Region of Peel	1) The OEB responded to Region of Peel's June 4, 2019 request for intervenor status (see ROC2795), noting that Imperial did not object to Region of Peel's request. Although the request was received after the deadline, the OEB is satisfied that Region of Peel has a "substantial interest" in the proceeding and has accepted Region of Peel as an intervenor. 2) Letter sent by email. 3) Attachment to email: Procedural Order No. 1.
2506	Letter	June 5, 2019	Halton Region OEB	1) The OEB responded to Halton Region's request for intervenor status (see ROC2729), noting that Imperial did not object to Halton Region's request. Although the request was received after the deadline, the OEB is satisfied that Halton Region has a "substantial interest" in the proceeding and has accepted Halton Region as an intervenor. 2) Letter sent by email. 3) Attachment to email: Procedural Order No. 1.
2509	Email	June 6, 2019	OEB Imperial	1) OEB notified Imperial of a letter received by a private landowner, and indicated that this letter is on the record. 2) Attachment to email: Letter from landowner intervenor.
2495	Letter	June 7, 2019	City of Mississauga OEB	1) The City of Mississauga notified the OEB of a change in contact for the City. 2) The City requested a one-month extension of the interrogatory process, noting that the City of Toronto City of Hamilton, Region of Peel and Halton Region are supportive of this extension. 3) Letter sent by email.
3293	Email	June 7, 2019	OEB Imperial	1) Imperial is prepared to proceed with the Procedural Order No. 1 timeline, but acknowledges the City of Mississauga's request for an extension. Imperial supports the acceptance of this request.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3295	Email	June 10, 2019	OEB Imperial	1) The OEB provided Procedural Order No. 2, which sets out the revised timelines for the interrogatory process. 2) Attachment to email: Procedural Order No. 2.
2624	Letter	June 17, 2019	OEB Imperial	1) OEB determined that the Landowner's questions are akin to interrogatories and directed Imperial to respond to the questions by August 6, 2019 (see June 6, 2019 email, ROC2509).
3001	Email	June 17, 2019	OEB MENDM Imperial	1) MENDM forwarded the proposed June 26, 2019 meeting agenda to OEB and requested they participate in the call (see June 17, 2019 email, ROC2998). 2) Imperial provided clarification that the call was to address questions specific to consultation with Indigenous groups as it related to the Leave to Construct Application, not the overall Leave to Construct process.
2756	Letter	June 25, 2019	OKT Law (HWN) OEB	1) HWN submitted an application to the OEB to become an intervenor, noting they have an interest in the Application because the project has significant potential to negatively impact the integrity of their archaeological and burial sites, including the Parson's Site.
3038	Email	June 25, 2019	OEB Imperial	1) Imperial reiterated that the questions during the June 26, 2019 call will be specific to Indigenous engagement/consultation (see June 17, 2019 email, ROC3001).
3046	Email	June 26, 2019	OEB Imperial	1) The OEB informed Imperial that HWN submitted an application to the OEB to become an intervenor (see June 25, 2019 letter, ROC2756). 2) Imperial provided no objection to HWN's application to become an intervenor. 3) Attachment to email: HWN request for intervenor status.
3304	Conference Call	June 26, 2019	MENDM OEB Imperial	1) Conference call with MENDM and OEB to discuss Indigenous consultation as it relates to the Leave to Construct Application. Topics discussed included: Duty to Consult delegation, intervenor costs, OEB conditions, field monitor regulatory requirements and Indigenous Consultation report review.
2750	Letter	June 27, 2019	OKT Law (HWN) OEB	1) The OEB responded to HWN's request for intervenor status (see ROC2756), noting that Imperial did not object to HWN's request. Although the request was received after the deadline, the OEB is satisfied that HWN has a "substantial interest" in the proceeding and has accepted HWN as an intervenor. 2) HWN's concerns relate to potential impacts on archaeological and burial sites. 3) Letter sent by email. 4) Attachment to email: Procedural Order No. 2.
3065	Email	June 28, 2019	OEB Imperial	1) OEB provided a link to the OEB Rules of Practice and Procedure sections on interrogatories and responses and noted that issue numbers do not apply.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)				
2141	Email	February 14, 2019	OMAFRA ERM Group	1) ERM informed OMAFRA that Imperial intends to file a Leave to Construct Application for the Project with the OEB and that a pre-application filing of the draft Environmental Report has been submitted. ERM provided a link to the draft Environmental Report and provided contact information for feedback.
2346	Email *	April 24, 2019	OMAFRA Imperial	1) Imperial provided the Land Use Policy and Stewardship Department with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: PDF OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2440	Email	May 2, 2019	OMAFRA Imperial	1) Imperial provided the Minister's Office with a project update and a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and noted that the Application and notice are now public. 2) Attachment to email: OEB Notice of Hearing.
Ontario Ministry of Economic Development, Job Creation and Trade				
2521	Email	May 3, 2019	Ontario Ministry of Economic Development, Job Creation and Trade Imperial	1) Imperial provided the Minister's Office with an update on the Project and the Leave to Construct Application. 2) Imperial informed the Minister's Office that the Notice of Hearing and Leave to Construct Application have been submitted to the OEB and that the review process has begun. 3) Attachment to email: OEB Notice of Hearing.
Ontario Ministry of Energy, Northern Development and Mines (MENDM)				
2206	Conference Call	April 8, 2019	MENDM Imperial	1) MENDM provided guidance on the project consultation process and other consultation. 2) Imperial to provide the Indigenous Consultation Report and contact log directly to MENDM via email, and provide regular updated contact logs as consultation continues. 3) Imperial is aware of Mississaugas of the Credit First Nation (MCFN's) riverbed rights claim and that the community is investigating legal options. 4) MENDM to confirm duty to consult and who is responsible to cover intervenor costs.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2212	Email	April 17, 2019	MENDM Imperial	1) Imperial provided notes for the April 8, 2019 conference call. 2) Attachment to email: April 8, 2019 conference call notes.
2354	Email *	April 24, 2019	MENDM Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2293	Phone Call	April 25, 2019	MENDM Imperial	1) MENDM requested that the Indigenous Consultation Report be sent to MENDM with contact information (see April 8, 2019 call, ROC2206).
2298	Email	April 29, 2019	MENDM Imperial	1) Imperial provided the Indigenous Consultation Report and sent a hard copy via postal mail (see April 25, 2019 email, ROC2293). 2) Attachment via Sharefile: Indigenous Consultation Report.
2435	Email	May 1, 2019	MENDM Imperial	1) The OEB confirmed receipt of the Indigenous Consultation Report (see April 29, 2019 email, ROC2298).
2439	Email	May 2, 2019	MENDM Imperial	1) Imperial provided the Minister's office with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing and noted that the Application and notice are now public (see April 24, 2019 email, ROC2354). 2) Attachment to email: OEB Notice of Hearing.
2925	Email	June 5, 2019	MENDM Imperial	1) Imperial sent a meeting invite for June 26, 2019.
2984	Email	June 14, 2019	MENDM Imperial	1) Imperial provided an agenda for the June 26, 2019 meeting (see June 5, 2019 email, ROC2925).
2998	Email	June 17, 2019	MENDM Imperial	1) MENDM informed Imperial that they will be asking OEB to join the June 26, 2019 call (see June 14, 2019 email, ROC2984).
3001	Email	June 17, 2019	OEB MENDM Imperial	1) MENDM forwarded the proposed June 26, 2019 meeting agenda to OEB and requested they participate in the call (see June 17, 2019 email, ROC2998). 2) Imperial provided clarification that the call was to address questions specific to consultation with Indigenous groups as it related to the Leave to Construct Application, not the overall Leave to Construct process.
3304	Conference Call	June 26, 2019	MENDM OEB Imperial	1) Conference call with MENDM and OEB to discuss Indigenous consultation as it relates to the Leave to Construct Application. Topics discussed included: Duty to Consult delegation, intervenor costs, OEB conditions, field monitor regulatory requirements and Indigenous Consultation Report review.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
Ontario Ministry of Environment, Conservation and Parks (MECP)				
2638	Email	February 1, 2019	MECP ERM Group	1) ERM advised that Imperial intends to file a Leave to Construct application for the Project with the OEB and that a pre-application filing of the draft Environmental Report has been submitted. ERM provided a link to the draft Environmental Report and provided contact information for feedback.
2132	Email	February 11, 2019	MECP ERM Group	1) MECP expressed difficulties in accessing the draft Environmental Report (see February 1, 2019 email, ROC2638).
2136	Email	February 12, 2019	MECP ERM Group	1) ERM followed up on MECP's ability to access the draft Environmental Report (see February 11, 2019 email, ROC2132)
2138	Email	February 13, 2019	MECP ERM Group	1) MECP confirmed that they were able to access the draft Environmental Report (see February 12, 2019 email, ROC2136).
2347	Email *	April 24, 2019	MECP Imperial	1) Imperial provided the Air, Pesticides and Environmental Planning Department with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2348	Email	April 24, 2019	MECP Imperial	1) Imperial provided the Air, Pesticides and Environmental Planning Supervisor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2349	Email	April 24, 2019	MECP Imperial	1) Imperial provided the Environmental Assessment and Permissions Division with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2352	Email	April 24, 2019	MECP Imperial	1) Imperial provided the Northeast Parks Zone with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2441	Email	May 2, 2019	MECP Imperial	1) Imperial provided the Minister's Office a project update and a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and noted that the Application and notice are now public. 2) Attachment to email: Notice of Hearing.
2525	Email	May 31, 2019	MECP ERM Group Imperial	1) Imperial inquired if the MECP would like an electronic copy of the Category 3 Water Taking Permit, and provided a copy of the Hydrology Study. 2) Attachment to email: Hydrology Study.
2528	Email	May 31, 2019	MECP Imperial	1) MECP would like a copy of the Water Taking Permit in addition to the regular submission (see May 31, 2019 email, ROC2525).
3323	Letter	June 3, 2019	MECP Imperial	1) Imperial submitted a Permit to Take Water application for MECP review and approval.
2933	Letter	June 7, 2019	MECP Imperial	1) MECP acknowledged receipt of the Permit to Take Water (see June 3, 2019 letter, ROC3323) and requested that Imperial provide additional information so the application can be processed.
2935	Email	June 10, 2019	MECP ERM Group	1) ERM provided the Water Taking Permit submission (see May 31, 2019 email, ROC2528). 2) MECP confirmed receipt of Part 1 and 2 of the Water Taking Permit submission and provided updated contact information. 3) Attachment to email: Water Taking Permit.
2954	Email	June 11, 2019	MECP Imperial	1) MECP requested a meeting with ERM/Imperial once Imperial's application has been submitted to the Niagara Escarpment Commission.
2964	Email	June 12, 2019	MECP Imperial	1) Imperial confirmed they are working address questions related to the Niagara Escarpment Commission submission and the NEC permit application, and inquired how to submit the NEC permit application (see June 11, 2019 email, ROC2954).
3007	Email	June 19, 2019	MECP ERM Group	1) ERM provided responses to MECP's letter dated June 7, 2019 (see June 7, 2019 letter, ROC2933).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3044	Email	June 26, 2019	MECP ERM Group Imperial	1) MECP requested a meeting to discuss the Water Taking Permit and listed concerns about the submission (see June 12, 2019 email, ROC2964).
3055	Email	June 27, 2019	MECP Imperial	1) Imperial thanked MECP for their initial review of the Water Taking Permit submission and requested a meeting sometime from July 9-12, 2019 (see June 26, 2019 email, ROC3044).
Ontario Ministry of Government and Consumer Services (MGCS)				
2926	Email	June 5, 2019	MGCS Imperial	1) Imperial requested a meeting with the Deputy Minister the week of June 24, 2019 to discuss the Project, and specifically easement negotiations within the Hydro One corridor.
2975	Email	June 13, 2019	MGCS Imperial	1) Imperial requested a meeting the week of June 24, 2019 (see June 5, 2019 email, ROC2926).
3014	Email	June 20, 2019	MGCS Imperial	1) MGCS Realty Management Branch suggested participants for the meeting (see June 13, 2019 email, ROC2975). A meeting was suggested on June 28, 2019.
3020	Email	June 21, 2019	MGCS Imperial	1) MGCS confirmed the June 28, 2019 call (see June 20, 2019 email, ROC3014).
3029	Email	June 24, 2019	MGCS Imperial	1) MGCS Realty Management Branch provided a contact for the Project and suggested a new meeting date of June 27, 2019 (see June 21, 2019 email, ROC3020).
3036	Email	June 25, 2019	MGCS Imperial	1) Meeting scheduled for July 3, 2019 with the Assistant Deputy Minister (see June 24, 2019 email, ROC3029). [meeting held in July]
Ontario Ministry of Municipal Affairs and Housing (MMAH)				
2357	Email *	April 24, 2019	MMAH Imperial	1) Imperial provided the Community Planning and Development Department with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2358	Email	April 24, 2019	MMAH Imperial	1) Imperial provided the Municipal Services Office with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2442	Email	May 2, 2019	MMAH Imperial	1) Imperial provided the Minister's Office a project update and a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and noted that the Application and notice are now public. 2) Attachment to email: OEB Notice of Hearing.
Ontario Ministry of Natural Resources and Forestry (MNRF)				
2133	Email	February 11, 2019	MNRF Imperial	1) Imperial requested an update on MNRF's review of the Information Gathering Form (see January 16, 2019 email).
2137	Email	February 11, 2019	MNRF Savanta	1) MNRF noted that they haven't received the required template information needed to complete the Butternut Health Assessments. MNRF sent a template of the form needed and asked for it to be completed and returned. MNRF also suggested a copy be provided to Aurora District (see February 11, 2011 email, ROC2133). 2) Savanta to complete the Butternut Health Assessment form and return it to MNRF after the remaining Butternut trees have been assessed this year.
2169	Email	February 23, 2019	MNRF Savanta	1) Savanta inquired if the Butternut Health Assessment report can be accepted for all currently identified trees (see February 11, 2019 email, ROC2137).
2173	Email	February 26, 2019	MNRF Savanta	1) MNRF indicated that Savanta can submit the Butternut Health Assessment report for all identified trees before the trees have been assessed (see February 23, 2019 email, ROC2169).
2182	Email	March 5, 2019	MNRF Savanta Imperial	1) MNRF informed Imperial that they will be providing notes on the Information Gathering Form by March 8, 2019 (see February 11, 2019 email, ROC2133)
2187	Email	March 7, 2019	MNRF Imperial	1) The Aurora District provided review comments on the draft Information Gathering Form (see March 5, 2019 email, ROC2182). 2) Attachment to email: Aquatic SAR Comments Addressed Email.
2190	Email	March 8, 2019	MNRF Imperial	1) Imperial will review MNRF's comments and provide a list of questions (see March 7, 2019 email, ROC2187).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2192	Email	March 11, 2019	MNRF Imperial	1) The Guelph District of the MNRF provided additional comments on the draft Information Gathering Form (see March 7, 2019 email, ROC2187).
2204	Email	March 20, 2019	MNRF Imperial	1) Imperial confirmed receipt of MNRF's comments of the Draft Information Gathering Form and noted that the comments will be addressed (see March 11, 2019 email, ROC2192).
2205	Email	March 22, 2019	MNRF Savanta Imperial	1) Savanta inquired if MNRF would like to hold a conference call to discuss the comments on the draft information Gathering Form (see March 20, 2019 email, ROC2204).
2209	Email	April 16, 2019	MNRF Imperial	1) Imperial requested a call in early May to discuss project impacts on Species at Risk (see April 12, 2019 email, ROC2207).
2207	Email	April 16, 2019	MNRF Imperial	1) The MNRF contact confirmed her transfer to MECP. 2) It was noted that in cases where impacts to Species at Risk cannot be avoided, the Project is likely qualified for registration under s. 23.18 of O. Reg. 242/08. Imperial could decide to proceed with registration and no further consultation would be required with MECP.
2290	Phone Call	April 24, 2019	MNRF Savanta	1) Savanta left a voicemail to discuss test pitting for archaeological surveys within regulated Jefferson Salamander habitat and to request a meeting with the MNRF to discuss approaches to Endangered Species Act compliance.
2359	Email *	April 24, 2019	MNRF Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2297	Email	April 25, 2019	MNRF Imperial	1) MNRF indicated that they are available May 3, 7, 8 and 10, 2019 for the requested call to discuss species at Risk (see April 16, 2019 email, ROC2209).
2433	Email	April 25, 2019	MNRF Imperial	1) Imperial resent an email containing a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, information on where to obtain a hard copy of the Notice if needed and provided information about how to become an intervenor to MNRF as it was sent to the wrong email address. 2) Attachment to email: OEB Notice of Hearing.
2306	Email	April 30, 2019	MNRF Imperial	1) Imperial noted that they are available during the week of May 27, 2019 to discuss impacts on Species at Risk (see April 25, 2019 email, ROC2297).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2443	Email	May 2, 2019	MNRF Imperial	1) Imperial provided the Minister's Office with a project update and a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and noted that the Application and notice are now public. 2) Attachment to email: OEB Notice of Hearing, project briefing.
2704	Email	May 28, 2019	MNRF Imperial ERM Group Savanta	1) Meeting scheduled for May 29, 2019. ERM provided an agenda, along with a link to draft species at risk mapping and a map relating to archaeological test pitting. 2) Attachment to email: archaeological test pitting within JESA-regulated habitat.
3296	Meeting	May 29, 2019	MNRF Imperial	1) Meeting with MNRF cancelled (see May 28, 2019 email, ROC2704).
2529	Phone Call	June 4, 2019	MNRF Imperial	1) Imperial held a call with MNRF to discuss the <i>Endangered Species Act</i> (ESA) compliance for Stage 2 archaeological assessment, and ESA compliance measures and next steps.
2530	Email	June 5, 2019	MNRF Imperial	1) Imperial inquired about a contact person to discuss Licence of Occupation for watercourses (see June 4, 2019 call, ROC2529). 3) Attachment to email: Previous emails re: Licence of Occupation for watercourses.
2965	Email	June 12, 2019	MNRF CanACRE	1) MNRF indicated they are available on June 17, 2019 to discuss watercourse crossings (see June 5, 2019 email, ROC2530).
2991	Conference Call	June 17, 2019	MNRF CanACRE	1) Conference call with MNRF to determine next steps for water crossings land acquisition. Topics discussed: water crossings process, rental calculations and timeline.
3037	Email	June 25, 2019	MNRF CanACRE	1) CanACRE provided notes from the June 17, 2019 conference call (see ROC2991). 2) CanACRE provided a link to the full record of consultation in the Application. 3) CanACRE provided a KMZ of the water crossing locations. 4) Attachments to email: (a) June 17, 2019 conference call notes; (b) KMZ File.
Ontario Ministry of Tourism, Culture and Sport (MTCS)				
2161	Email	February 20, 2019	MTCS Past Recovery	1) Past Recovery requested advice regarding a proposed weathering strategy for the Stage 2 Program.
2167	Email	February 22, 2019	MTCS Past Recovery	1) MTCS provided input on the proposed weathering strategy and requested photo documentation in the final report to confirm conditions and visibility of the surveyed areas (see February 20, 2019 email, ROC2161).
2179	Email	March 4, 2019	MTCS ERM Group	1) ERM inquired if MTCS has bathymetry data on Lake Medad and if they know it depth.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2181	Email	March 5, 2019	MTCS ERM Group	1) MTCS has very limited information on Lake Medad as it is privately owned, and would be interested in any data ERM is able to gather (see March 4, 2019 email, ROC2179). 2) ERM provided a photo of an older bathymetry map and noted that they would share more accurate data if they can find it. 3) Attachment to email: Bathymetry map photo.
2211	Phone Call	April 17, 2019	MTCS Unterman McPhail Associates	1) MTCS confirmed the process for OEB compliance and noted that the OEB expects the ministry and agencies to provide clearance related to submissions. They also noted that the new access roads for the Project fall under Built Heritage and Cultural Heritage Landscapes Screening for Impacts to Built Heritage and Cultural Heritage Landscapes as an impact to cultural heritage and that an addendum to the Existing Conditions Report must be submitted.
2286	Email	April 23, 2019	MTCS Past Recovery	1) Past Recovery asked for clarification regarding appropriate Stage 2 Program discing methodology.
2361	Email *	April 24, 2019	MTCS Imperial	1) Imperial provided the Culture Programs Unit with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2308	Email	April 26, 2019	MTCS Past Recovery	1) MTCS asked for additional information relating to discing of certain parcels for the Stage 2 Program in order to respond to the Past Recovery inquiry (see April 23, 2019 email, ROC2286).
2310	Email	April 29, 2019	MTCS Past Recovery	1) Past Recovery provided additional information regarding the property parcels in question for discing rather than ploughing (see April 26, 2019 email, ROC2308).
2312	Email	April 30, 2019	MTCS Past Recovery	1) MTCS provided information relating to ploughing (see April 29, 2019 email, ROC2310).
2436	Email	May 1, 2019	MTCS Past Recovery	1) Past Recovery indicated that the pipeline on WTFN2014 is too shallow to allow for ploughing. Due to safety concerns, Past Recovery requested that MTCS approve a modification to the survey requirements to allow test pitting in these sections of the agricultural fields (see April 30, 2019 email, ROC2312). 2) Attachment to email: WTFN2014 Parcel Map.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2084	Email	May 1, 2019	MTCS Two Row Archaeology (Haudenosaunee Development Institute [HDI]) ERM Group	1) HDI indicated that they prefer to continue with smaller crews and would prefer to wait for feedback from MTCS for input on their questions regarding the Stage 2 Program process (see May 1, 2019 email, ROC2080).
2085	Email	May 1, 2019	MTCS Two Row Archaeology (HDI) ERM Group	1) HDI expressed concern over the test pit size for the Stage 2 Program. HDI requested that MTCS ensure proper standards are followed.
2086	Email	May 2, 2019	MTCS Two Row Archaeology (HDI) ERM Group	1) ERM agreed to get MTCS's feedback on HDI's concerns (see May 1, 2019 emails, ROCs 2084 and 2085).
2445	Email	May 2, 2019	MTCS Imperial	1) Imperial provided the Minister's Office with a project update and a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and noted that the Application and notice have been submitted and the review period has begun. 2) Attachment to email: OEB Notice of Hearing.
2446	Email	May 2, 2019	MTCS Past Recovery	1) MTCS requested additional information regarding WTFN2140 and noted that due to the shallow depth of the pipeline, shallow ploughing may be needed for the Phase 2 Program (see May 1, 2019 email, ROC2436). 2) MTCS informed Past Recovery that any proposed strategy involving substitution of a pedestrian survey with test pitting will require a fulsome confirmation of the applicable regulations as well as detailed mapping for each area.
2088	Email	May 3, 2019	MTCS Two Row Archaeology (HDI) ERM Group	1) MTCS responded to HDI's concerns regarding the test pit size for the Stage 2 Program, and provided guidelines to ensure proper standards are followed (see May 1, 2019 email, ROC2085).
2546	Email	May 8, 2019	MTCS Past Recovery	1) Past Recovery submitted the Stage 1 Archaeology Report associated with PIF P336-0194-2017 to MTCS. 1) MTCS acknowledged receipt of the submission, and noted that once the report passes the screening it will be entered into the Ontario Public Register of Archaeological Reports without technical review.
2547	Email	May 8, 2019	MTCS ERM Group	1) ERM informed MTCS that Imperial and ERM will be discussing the concerns brought forward by HDI (see May 3, 2019 email, ROC2088).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2095	Email	May 14, 2019	MTCS Two Row Archaeology (HDI)	1) HDI inquired about the specifics of implementing test pit guidelines and the best approach moving forward for pedestrian surveying during the Stage 2 Program (see May 3, 2019 email, ROC2088).
3137	Email	May 28, 2019	MCFN MTCS	1) MCFN requested clarification of a licensee's obligations to delegate their in-field responsibility to another subcontractor of their client. Imperial has noted that Past Recovery is not delegating responsibility to ASI Heritage, but that Past Recovery will maintain responsibility to ensure MTCS and Past Recovery standards are met.
2710	Email	May 30, 2019	MTCS ERM Group	1) ERM requested a meeting with MTCS on June 4, 2019 to share the Stage 2 Program methodology. ERM will provide a memo on the methodology before the meeting.
2711	Email	May 31, 2019	MTCS ERM Group	1) MTCS is not available on June 4, 2019 and suggested the following week (see May 30, 2019 email, ROC2710). 2) MTCS noted that lead time would be required to review a memo before the meeting.
2713	Email	June 3, 2019	MTCS ERM Group	1) ERM suggested a conference call on June 10, 2019 (see May 31, 2019 email, ROC2711).
2956	Email	June 11, 2019	MTCS ERM Group	1) MTCS requested additional information regarding the horizontal directional drilling sections of the corridors before they could confirm alignment with the proposed Stage 2 methodology.
2966	Email	June 12, 2019	MTCS ERM Group	1) ERM provided additional information regarding the horizontal directional drilling sections of the corridors (see June 11, 2019 email, ROC2956). 2) Attachment to email: Oct 2018 emails.
2967	Email	June 12, 2019	MTCS Past Recovery	1) Past Recovery followed up on the ploughing issues for WTFN2014 and indicated that it will be ploughed (see May 2, 2019 email, ROC2446).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2527	Meeting	June 14, 2019	Haudenosaunee Confederacy of Chiefs Council (HCCC/HDI) Haudenosaunee Development Institute (HDI) MTCS Two Row Archaeology (HDI) ASI Heritage ERM Group Imperial Past Recovery	<p>1) Meeting with HCCC/HDI and MTCS at the HDI office to discuss Stage 2 Program concerns. Topics discussed included: (a) methodology memo; (b) professional judgement; (c) other methods of assessment (besides trenching); (d) HDI monitor input; (e) Stage 1 report; (f) determining methodology for the Stage 2 Program; (g) standards and guidelines; (h) found artifacts; (i) Stage 3 sites; (j) Stage 2 reports and summaries; (k) field protocol.</p> <p>2) Issues to be resolved: (a) capacity funding to review reports; (b) trenching as a method to deal with deeply buried topsoil; (c) intervals of STP survey; (d) HDI prefers to sit down with consultants and resolve concerns because HDI wants to do more work with consultants.</p> <p>3) HCCC/HDI noted that Past Recovery and ASI Heritage are doing good field work, and they will reach out to MTCS to address issues with standards and guidelines.</p> <p>4) HCCC/HDI to review the Stage 1 Archaeology Report and Stage 2 mapping (when provided), and identify areas to request intensification.</p>
Ontario Ministry of Transportation (MTO)				
3285	Meeting	March 28, 2019	MTO Imperial	1) Meeting with MTO to provide a project update.
2360	Email *	April 24, 2019	MTO Imperial	<p>1) Imperial provided the Corridor Management Section with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor.</p> <p>2) Attachment to email: OEB Notice of Hearing.</p>
2403	Email	April 24, 2019	MTO Imperial	<p>1) Imperial provided the Corridor Management and Property Office with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor.</p> <p>2) Attachment to email: OEB Notice of Hearing.</p> <p>3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).</p>
2444	Email	May 2, 2019	MTO Imperial	<p>1) Imperial provided the Minister's Office with a project update and a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and noted that the Application and notice have been submitted and the review period has begun.</p> <p>2) Attachment to email: OEB Notice of Hearing.</p>

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2677	Meeting	May 8, 2019	MTO Imperial ERM Group CanACRE	1) Meeting with MTO to provide a project update. Topics discussed included: (a) engagement to date; (b) project drawings provided to date; (c) regulatory process; (d) MTO's approval process. 2) Imperial to resubmit the preliminary package and prepare justification for red-light locations. 2) Concerns: (a) areas where Imperial will encroach into MTO's 14-m setback; (b) need for detailed drawings.
2689	Email	May 16, 2019	MTO CanACRE	1) CanACRE provided notes for the May 8, 2019 meeting (see ROC2677), requesting any comments from MTO.
2971	Email	May 28, 2019	MTO CanACRE	1) CanACRE requested an extension to Encroachment Permit #EC-2019-20T-00000011.
2701	Email	May 27, 2019	MTO CanACRE	1) MTO had no comments on the May 8, 2019 meeting notes (see May 16, 2019 email, ROC2689).
2972	Email	June 5, 2019	MTO CanACRE	1) MTO provided extensions to Permits # EC-2019-000000011 and #EC-2019-20T-000000055 and noted that further extension may require resubmission of the application for review (see May 28, 2019 email, ROC2971).
2973	Email	June 17, 2019	MTO CanACRE	1) CanACRE provided notification of non-intrusive environmental surveys. A description of the surveys was provided. 2) Attachments to email: (a) Survey Access Tracker Spreadsheet; (b) ROC2972 Email; (c) Survey Scopes of Work; (d) Encroachment Permit; (e) Encroachment Permit. 3) The surveys were also discussed by phone, after which CanACRE provided parcel and arborist survey maps. 4) Attachments to email: Parcel and arborist survey maps.
2990	Email	June 17, 2019	MTO CanACRE	1) CanACRE re-submitted the MTO Permitting Supplementary Information Package Permitting Supplementary Information Package for permanent crossings, and provided a link for the written justification for the two "contentious"/"red-light" areas (see May 8, 2019 meeting, ROC2677). 2) Attachments to email: (a) Permitting Supplementary Information Package; (b) Highway Crossings Spreadsheet.
3008	Email	June 19, 2019	MTO CanACRE	1) CanACRE requested setback distances in metres from MTO's property limit to include in the Permanent Crossings Application (see June 17, 2019 email, ROC2990).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
Technical Standards and Safety Authority (TSSA)				
2129	Email	February 7, 2019	TSSA Universal Pegasus International	1) The TSSA provided comments on the January 21, 2019 meeting notes and questions sent by UPI.
2385	Email *	April 24, 2019	TSSA Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2970	Email	June 12, 2019	TSSA Imperial	1) The TSSA provided a review of the application for SR 2581426. 2) Imperial set up a conference call for July 18, 2019 to discuss the review of the application.
3059	Meeting	June 27, 2019	TSSA Imperial Universal Pegasus International	1) Meeting with the TSSA to receive clarification and provide a response to questions regarding the permit application submission (see June 12, 2019 email, ROC2970).
Toronto and Region Conservation Authority (TRCA)				
2145	Email	February 1, 2019	TRCA CanACRE ERM Group Imperial	1) Conference call to discuss permanent easement rights scheduled for February 5, 2019.
2165	Email	February 1, 2019	TRCA ERM Group	1) ERM informed TRCA that Imperial intends to file a Leave to Construct Application for the Project with the OEB and that a pre-application filing of the draft Environmental Report has been submitted. ERM provided a link to the draft Environmental Report and provided contact information for feedback.
2146	Conference Call	February 5, 2019	TRCA CanACRE ERM Group Imperial	1) Conference call with TRCA to discuss the land rights required to acquire permanent rights on property owned by the Toronto and Region Conservation Authority.
2130	Email	February 8, 2019	TRCA Imperial	1) TRCA noted that an archaeological assessment on all TRCA lands prior to any construction activities is required. TRCA inquired if they should start on this phase of the review.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2139	Email	February 13, 2019	TRCA Imperial	1) Imperial provided a photo of the proposed location of the new pipeline and workspace within the affected TRCA property, and confirmed that TRCA should proceed with an archaeological desktop review (see February 8, 2019 email, ROC2130). 2) Attachment to email: Photo of proposed location.
2140	Email	February 13, 2019	TRCA Imperial	1) Imperial provided the status of the TRCA-regulated boreholes and accesses that are part of Imperial's geotechnical program.
2143	Email	February 14, 2019	TRCA Imperial	1) TRCA provided a screening record for the easement and confirmed they have no archaeological concerns in that area (see February 13, 2019 email, ROC2139). 2) Attachment to email: Archaeology Screening Report.
2158	Email	February 19, 2019	TRCA Imperial	1) TRCA requested further information on the borehole program (see February 13, 2019 email, ROC2140). 2) Attachment to email: TRCA September 11, 2018 letter.
2166	Email	February 21, 2019	TRCA ERM Group Imperial	1) ERM informed TRCA that OEB has agreed to a three-week review period of the pre-application draft Environmental Report submitted on February 1, 2019 and noted that they can receive comments at any time throughout the review process (see February 1, 2019 email, ROC2145). 2) TRCA asked when the draft Environmental Report comments are due and Imperial will file the Leave to Construct Application. 3) Imperial noted there is a three-week review period, and that the Leave to Construct Application, including the final Environmental Report, will be submitted in the next few days. A copy will be provided to all stakeholders after the OEB confirms the Application is complete. Imperial will consider any comments received throughout the upcoming review process and ensure that all feedback is addressed.
2186	Email	March 6, 2019	TRCA Imperial	1) Imperial provided responses to the TRCA borehole information request (see February 19, 2019 email, ROC2158). 2) Attachment to email: Emails re: borehole access and loading limitations.
2189	Letter *	March 8, 2019	TRCA ERM Group Imperial	1) The TRCA provided comments on the draft Environmental Report (see February 21, 2019 email, ROC2166). Responses related to: project overview, project review, submission requirements and review fees. 2) Letter sent by email.
2197	Email	March 14, 2019	City of Toronto TRCA Imperial	1) The TRCA requested that a link to the Environmental Report be provided to the City of Toronto contact as he did not receive the link from Imperial (see March 8, 2019 email, ROC2189).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2200	Email	March 18, 2019	City of Toronto TRCA ERM Group	1) Imperial provided a copy of the draft Environmental Report link to the City of Toronto following the TRCA request (see March 14, 2019 email, ROC2197).
3324	Email	April 8, 2019	TRCA Imperial	1) Discussed the archaeological screening submitted by Imperial. Imperial provided their construction commitments, and the TRCA will re-issue the screening report to identify as "No Concerns" with the indicated project areas.
2228	Email	April 22, 2019	TRCA Imperial	1) Imperial confirmed they will provide a summary of the project's concordance with the TRCA checklist for review. 2) Imperial inquired about potential concerns and mitigation requirements that TRCA may have with a proposed valve location.
2382	Email *	April 24, 2019	TRCA Imperial	1) Imperial provided Environmental Assessments with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2383	Email	April 24, 2019	TRCA Imperial	1) Imperial provided Infrastructure Planning and Permits with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2313	Email	April 30, 2019	TRCA Imperial	1) Imperial noted that a concordance table, a waterbody crossing table and the timing of a potential field visit will be shared with the TRCA (see April 22, 2019 email, ROC2228).
2541	Email *	May 7, 2019	TRCA ERM Group	1) ERM provided: (a) an updated watercourse and wetland crossing list; (b) a list of watercourses and wetlands within TRCA regulated areas; (c) footprint shapefiles for watercourse and wetland crossing locations; (d) a concordance table and TRCA permit application schedule. 2) ERM also proposed a site visit sometime during June 2-8, or June 9-15, 2019 (see April 30, 2019 email, ROC2304). 3) Attachments to letter: (a) permit application watercourse and wetland crossing lists; (b) permit application concordance and application schedule.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2929	Site Visit *	June 6, 2019	TRCA ERM Group Stantec Imperial Universal Pegasus International	1) Site visit to representative pipeline watercourse crossings in and around the Humber River Valley. Topics discussed: (a) horizontal drill design; (b) recovery pits; (c) mitigation plans for construction through steep slopes and riparian/floodplain for trenchless installation. 2) TRCA will discuss the site visit internally and then would like to meet to discuss the Ontario Regulation application filings.
2941	Email	June 10, 2019	TRCA Imperial	1) Imperial thanked TRCA for participating in a site visit (see ROC2929) and noted that they will be following up with some brief notes from the visit.
2762	Email	June 11, 2019	City of Toronto TRCA CanACRE	1) CanACRE notified the Parks, Forestry & Recreation and Infrastructure Planning & Permits Divisions of non-intrusive environmental surveys planned for June and July 2019. A description of the surveys was provided. 2) Attachment to email: (a) List of properties affected by the surveys and timeline; (b) Survey scope of work.
2978	Email	June 13, 2019	TRCA ERM Group	1) ERM requested a call to discuss the fish-bearing status spreadsheet and TRCA's knowledge of fish-bearing status. 2) Attachment to email: Fish Bearing Status Spreadsheet.
2985	Email	June 14, 2019	TRCA ERM Group	1) TRCA agreed to arrange a call to discuss the Fish Bearing spreadsheet and requested the related watercourse and the classification drawings (see June 13, 2019 email, ROC2978).
3009	Email	June 19, 2019	TRCA ERM Group	1) ERM provided notes from the June 6, 2019 site visit (see ROC2929). 2) Attachment to email: June 6, 2019 Site Visit Notes.
3039	Email	June 25, 2019	TRCA CanACRE	1) CanACRE submitted a Permitting Supplementary Information Package for land crossing locations for review and approval. 2) Attachment to email: Permitting Supplementary Information Package.
3050	Email	June 26, 2019	TRCA ERM Group	1) ERM provided copies of the maps distributed during the June 6, 2019 site visit (see June 6, 2019 site visit, ROC2929). 2) ERM requested the contact information of an ecologist to discuss the fish-bearing status spreadsheet (see June 14, 2019 email, ROC2985).
Transport Canada				
2215	Email	April 18, 2019	Transport Canada Imperial	1) Imperial informed Transport Canada that the project meets the Minor Works Order and will proceed as instructed (see January 31, 2019 email).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2416	Email *	April 24, 2019	Transport Canada Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2673	Email	May 6, 2019	Transport Canada Imperial	1) Transport Canada does not require receipt of individual or Class EA related notifications, and provided information on how to determine if notification is required (see April 24, 2019 email, ROC2416).
STAKEHOLDERS				
Alectra Utilities				
2314	Email *	April 24, 2019	Alectra Utilities Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2942	Email	June 11, 2019	Alectra Utilities CanACRE	1) CanACRE provided notification of non-intrusive arborist surveys. A description of the surveys was provided. CanACRE 2) Attachments to email: Permission to Enter Agreement, Survey Tracker Access Spreadsheet, Arborist Inventory SOW, Parcel Imagery.
3011	Email	June 20, 2019	Alectra Utilities CanACRE	1) CanACRE provided an update to Imperial's geotechnical program and provided a list of additional borehole locations and access roads. 2) Attachments to email: (a) Borehole 77 Site Plan Sketch; and (b) Borehole 143 Site Plan Sketch.
3018	Email	June 21, 2019	Alectra Utilities CanACRE	1) CanACRE provided a change notification for the geotechnical program and a table of additional boreholes and crossing locations (see June 20, 2019 email, ROC3011). 2) Attachment to email: Borehole 143 Site Plan Sketch.
	Email	July 3, 2019	Alectra Utilities CanACRE	1) Alectra Utilities provided a fully executed Amending Agreement to Permission to Enter Agreement to extend the term of the non-intrusive surveys to July 31, 2019. 2) Attachment to email: Amending Agreement to Permission to Enter Agreement.
Anatolia Capital Corp.				
3298	Email *	April 24, 2019	Anatolia Capital Corp. Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2291	Email	April 24, 2019	Anatolia Capital Corp. Imperial	1) Anatolia requested a clearer map of the Project in order to review the OEB Notice (see April 24, 2019 email, ROC3298).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2294	Email	April 25, 2019	Anatolia Capital Corp. Imperial	1) Imperial sent Anatolia links to the project website, Environmental Report and to a more detailed map (see April 24, 2019 email, ROC2291).
2309	Email	April 29, 2019	Anatolia Capital Corp. Imperial	1) Anatolia inquired if the pipeline will cross their property (see April 25, 2019 email, ROC2294).
2311	Email	April 30, 2019	Anatolia Capital Corp. Imperial	1) Imperial confirmed the notification addresses and specific locations where Anatolia has been identified as an affected landowner or encumbrancer (see April 29, 2019 email, ROC2309).
Bell Mobility Inc.				
3222	Email	February 1, 2019	Bell Mobility Inc. CanACRE	1) Through correspondence with CP Rail, a potential for Bell fibre cables located beside the railway tracks at Galt Subdivision was noted. Imperial requested confirmation of Bell fibre at the location.
3223	Email	February 7, 2019	Bell Mobility Inc. CanACRE	1) Bell confirmed that they have a plant at the noted railway location (see February 1, 2019 email, ROC3222).
3224	Email	February 12, 2019	Bell Mobility Inc. CanACRE	1) Imperial advised that a recent change in an access route for the geotechnical survey program identified two unknown underground communication cables. Imperial provided the locations, and requested confirmation if the underground cables are owned by Bell.
3225	Email	February 13, 2019	Bell Mobility Inc. CanACRE	1) Bell does not have buried cables at the noted locations (see February 12, 2019 email, ROC3224).
3226	Email	February 14, 2019	Bell Mobility Inc. CanACRE	1) Imperial provided the locations of six unknown crossings and requested Bell's confirmation of ownership.
3227	Email	February 18, 2019	Bell Mobility Inc. CanACRE	1) Bell confirmed ownership of locations 2, 3 and 4 of the six unknown crossing locations, and noted that locations 5 and 6 are not Bell facilities (see February 14, 2019 email, ROC3226).
3228	Email	February 22, 2019	Bell Mobility Inc. CanACRE	1) Imperial requested ownership confirmation of an unknown underground communication cable, and requested field confirmation by Bell of the location. Imperial provided a mark-up received from Bell on January 23, 2019. 2) Attachment to email: January 23, 2019 email.
3229	Email	March 6, 2019	Bell Mobility Inc. CanACRE	1) Bell requested locate records from Imperial to assist in resolving the discrepancy of the location of Bell's underground communication cable (see February 22, 2019 email, ROC3228).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2315	Email *	April 24, 2019	Bell Mobility Inc. Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, information on where to obtain a hard copy of the Notice if needed, and information about how to become an intervenor. 2) Attachment: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
3230	Email	April 30, 2019	Bell Mobility Inc. CanACRE	1) Imperial provided a copy of the January 23, 2019 email in which Bell confirmed the cables at this location are copper (see March 6, 2019 email, ROC3229). 2) Attachment to email: January 23, 2019 email. 3) Imperial noted in a separate email that since the March 6, 2019 email (see ROC3229), field crews have identified a cable on the south side of the road but only utilities on the north side. Imperial suggested that Bell field verify.
3233	Letter *	May 3, 2019	Bell Mobility Inc. Ontario Energy Board (OEB)	1) Bell Mobility submitted an application to the OEB to become an intervenor, noting that they have a direct interest in the application because construction of the pipeline may impact their wireless network assets along the proposed corridor.
3231	Email	May 10, 2019	Bell Mobility Inc. CanACRE	1) Bell acknowledged that Imperial's findings were correct and that there is a copper cable on the north side of the road although their records put the cable on the south side (see April 30, 2019 email, ROC3230). Bell confirmed that their records would be adjusted accordingly.
3232	Email	May 13, 2019	Bell Mobility Inc. CanACRE	1) Bell provided the revised updated survey of the location of the incorrectly identified copper cable (see May 10, 2019 email, ROC3231). 2) Attachment to email: Updated location drawing.
2684	Email	May 15, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Mississauga City of Toronto Enbridge Gas Inc. Greater Toronto Airports Authority (GTAA) OEB Landowner Imperial	1) The OEB notified the intervenors that Imperial expects to file an affidavit confirming service by May 24, 2019, and that the OEB will continue processing the application once Imperial's affidavit is received.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2526	Email *	May 31, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Hydro One Networks Inc. OEB Landowner Imperial	1) The OEB distributed Procedural Order No. 1 to Imperial and the intervenors. The order provided information on the timelines associated with the hearing. 2) Timeline is as follows: (a) information requests from the OEB and intervenors submitted by June 14, 2019; (b) Imperial responses to information requests by July 2, 2019; (c) written submissions from the OEB and intervenors by July 12, 2019; (d) written reply from Imperial by July 22, 2019. 3) Attachment: Procedural Order No. 1.
2940	Email *	June 10, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. OEB Region of Peel Landowner Imperial	1) The OEB provided the intervenors with a copy of Procedural Order No. 2, which provided an updated timeline for the hearing process. 2) Attachment to email: Procedural Order No. 2.
2627	Email	June 20, 2019	Bell Mobility Inc. CanACRE	1) Imperial identified two new Bell crossings. Imperial provided plans identifying the crossing locations, and requested that Bell advise if they have any concerns. 2) Attachment: Plan showing new crossing locations.
2629	Letter *	June 24, 2019	Bell Mobility Inc. OEB	1) Bell requested detailed MapInfo so they can overlay the project information on their existing network maps to highlight which assets may need to be temporarily or permanently relocated to accommodate pipeline construction.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2630	Email	June 25, 2019	Bell Mobility Inc. CanACRE	1) Bell acknowledged receipt of the additional crossing information (see June 20, 2019 email, ROC2627). Bell agreed to the additional crossings, but provided conditions for the approval relating to: (a) contact in advance of work, or any changes to route or schedule; (b) clearances; (c) securing advance locates; (d) test pit depth and method of digging; (d) cable damage.
3057	Email	June 27, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. OKT Law (Huron-Wendat Nation [HWN]) OEB Region of Peel Landowner Imperial Universal Pegasus International	1) The OEB provided the intervenors with a copy of their response to HWN's June 25, 2019 request for intervenor status (see June 26, 2019 email, ROC3046), noting that Imperial did not object to HWN's request. Although the request was received after the deadline, the OEB is satisfied that HWN has a "substantial interest" in the proceeding and has accepted HWN as an intervenor. 2) Attachment: OEB response to HWN request for intervenor status.
Burlington Green Environmental Association				
2425	Email *	April 24, 2019	Burlington Green Environmental Association Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
Burlington Hydro				
2318	Email *	April 24, 2019	Burlington Hydro Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
Canadian Exporters & Manufacturers				
3240	Letter *	May 6, 2019	Canadian Manufacturers & Exporters Ontario Energy Board (OEB)	1) Canadian Manufacturer's & Exporters submitted an application to the OEB to become an intervenor, noting their interest in the application arises from the reliability of the broad benefits that this project will have for Canadian manufacturers by ensuring the reliable supply of high-quality fuel products to help meet operational demands.
2684	Email	May 15, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Mississauga City of Toronto Enbridge Gas Inc. Greater Toronto Airports Authority (GTAA) Landowner Ontario Energy Board (OEB) Imperial	1) The OEB notified the intervenors that Imperial expects to file an affidavit confirming service by May 24, 2019, and that the OEB will continue processing the application once Imperial's affidavit is received.
2526	Email	May 31, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Hydro One Networks Inc. Landowner OEB Imperial	1) The OEB distributed Procedural Order No. 1 to Imperial and the intervenors. The order provided information on the timelines associated with the hearing. 2) Timeline is as follows: (a) information requests from the OEB and intervenors submitted by June 14, 2019; (b) Imperial responses to information requests by July 2, 2019; (c) written submissions from the OEB and intervenors by July 12, 2019; (d) written reply from Imperial by July 22, 2019. 3) Attachment to email: Procedural Order No. 1.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2940	Email	June 10, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. Region of Peel Landowner OEB Imperial	1) The OEB provided the intervenors with a copy of Procedural Order No. 2, which provided an updated timeline for the hearing process. 2) Attachment to email: Procedural Order No. 2.
3057	Email	June 27, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. OKT Law (HWN) Region of Peel Landowner OEB Imperial Universal Pegasus International	1) The OEB provided the intervenors with a copy of their response to HWN's June 25, 2019 request for intervenor status (see June 26, 2019 email, ROC3046), noting that Imperial did not object to HWN's request. Although the request was received after the deadline, the OEB is satisfied that HWN has a "substantial interest" in the proceeding and has accepted HWN as an intervenor. 2) Attachment to email: OEB response to HWN request for intervenor status.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
Canadian National Railway				
2319	Email *	April 24, 2019	Canadian National Railway Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) Canadian National Railway responded with new contact information for future correspondence related to permit.
2960	Email	June 12, 2019	CN Rail CanACRE	1) CanACRE provided notification of non-intrusive environmental surveys. A description of the surveys was provided. 2) Attachments to email: (a) Survey Access Tracker Spreadsheet; (b) Parcel and Arborist Survey Maps; (c) Scope of Work.
3033	Email	June 25, 2019	CN Rail CanACRE	1) CanACRE submitted a Permitting Supplementary Information Package for land crossing locations for review and approval. 2) Attachment to email: Permitting Supplementary Information Package
Canadian Pacific Railway				
2334	Email *	April 24, 2019	Canadian Pacific Railway Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
3004	Email	June 18, 2019	Canadian Pacific Railway CanACRE	1) CanACRE inquired about contractor training, flagging, or other safety procedures apply to additional archaeology work. CanACRE provided maps of the additional work site.
Credit Point Resident's Association				
2333	Email *	April 24, 2019	Credit Point Resident's Association Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2533	Email	May 6, 2019	Credit Point Resident's Association Imperial	1) Imperial provided a brief project update.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
Christian Farmers Federation of Ontario				
2427	Email *	April 25, 2019	Christian Farmers Federation of Ontario Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
City of Burlington				
2152	Email	February 19, 2019	City of Burlington Imperial	1) Imperial provided an update on the Leave to Construct application and inquired about contact information moving forward. 2) Imperial noted that the draft Environmental Report is available for review and comments.
2170	Email	February 25, 2019	City of Burlington Imperial	1) The City of Burlington provided contact information and instructions (see February 19, 2019 email, ROC2152).
2171	Email	February 26, 2019	City of Burlington Imperial	1) Imperial noted that they will use the contact information provided for the City of Burlington (see February 25, 2019 email, ROC2170).
2320	Email	April 24, 2019	City of Burlington Imperial	1) Imperial provided the City Manager with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2321	Email *	April 24, 2019	City of Burlington Imperial	1) Imperial provided the City Clerk with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) The City Clerk was also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2322	Email	April 24, 2019	City of Burlington Imperial	1) Imperial provided the Engineering Project Coordinator with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2388	Letter	April 24, 2019	City of Burlington Imperial	1) Imperial provided the Ward 6 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachments to letter: OEB Notice of Hearing.
2389	Letter	April 24, 2019	City of Burlington Imperial	1) Imperial provided the Mayor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachments to letter: OEB Notice of Hearing.
2390	Letter	April 24, 2019	City of Burlington Imperial	1) Imperial provided the Ward 3 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachments to letter: OEB Notice of Hearing.
3040	Email	June 26, 2019	City of Burlington Imperial	1) Imperial requested a meeting with the City of Burlington to discuss Imperial's Emergency Response Plan and process, suggesting during July 9-12, 2019 or August 6-8, 2019. 2) The City of Burlington suggested July 11, 2019. 2) Attachments to email: (a) CFO Emergency Response Plan; (b) Pipeline Spill Response Tactics for Peters Corners to Toronto; (c) Pipeline Spill Response Tactics – Bronte Creek.
3060	Email	June 28, 2019	City of Burlington Imperial	1) Imperial confirmed their availability for a meeting on July 11, 2019 (see June 26, 2019 email, ROC3040).
City of Hamilton				
2147	Email	February 1, 2019	City of Hamilton CanACRE	1) CanACRE informed the City of Hamilton that Imperial intends to file a Leave to Construct application for the Waterdown to Finch Project with the OEB and that a pre-application filing of the draft Environmental Report has been submitted. CanACRE provided a link to the draft Environmental Report and provided contact information for feedback.
2148	Email	February 8, 2019	City of Hamilton CanACRE	1) CanACRE provided the City of Hamilton with access information to review the draft Environmental Report (see February 1, 2019 e-mail, ROC2147).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2153	Email	February 19, 2019	City of Hamilton Imperial	1) Imperial informed the City of Hamilton that they plan to submit a Leave to Construct Application to the OEB and inquired about contact information moving forward.
2183	Email	March 6, 2019	City of Hamilton Imperial	1) Imperial followed up with the City of Hamilton to confirm contact information (see February 19, 2019 email, ROC2153).
2324	Email	April 24, 2019	City of Hamilton Imperial	1) Imperial provided the Specials Projects Manager with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, , and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachments to email: OEB Notice of Hearing.
2323	Email *	April 24, 2019	City of Hamilton Imperial	1) Imperial provided the City Clerk with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachments to email: OEB Notice of Hearing. 3) The City Clerk was also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2325	Email	April 24, 2019	City of Hamilton Imperial	1) Imperial provided the General Manager of Finance and Corporate Services with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachments to email: OEB Notice of Hearing.
2391	Letter	April 24, 2019	City of Hamilton Imperial	1) Imperial provided the Mayor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2392	Letter	April 24, 2019	City of Hamilton Imperial	1) Imperial provided the Ward 15 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2428	Email *	April 25, 2019	City of Hamilton Imperial	1) The City of Hamilton requested additional information regarding the Leave to Construct Application (see April 24, 2019 email, ROC2324). 2) Imperial responded with further information about the Project.
3291	Letter	May 29, 2019	City of Hamilton OEB	1) The City of Hamilton submitted an application to the OEB to become an intervenor, noting they have an interest in the application because approximately 3.5 km of pipeline extend through City of Hamilton lands, and the City is concerned about potential impacts on natural heritage, source water protection and corridor management.
2625	Email	June 13, 2019	City of Hamilton CanACRE	1) CanACRE notified the City of Hamilton of non-intrusive environmental surveys (arborist and fisheries surveys). A description of the surveys was provided (see February 1, 2019 email, ROC2147). 2) Attachment to email: (a) survey schedule; (b) survey scope of work; (c) Authority to Enter for Pipeline Maintenance.
2626	Email	June 26, 2019	City of Hamilton Imperial	1) Imperial inquired about engaging with City of Hamilton's emergency services / management department to discuss the Project Emergency Response Plans (ERPs) and attached the current ERP well as site-specific response plans for watercourses. Imperial inquired if the main point of contact for the City of Hamilton would like to facilitate the discussion with emergency services / management department and suggested a meeting date range of July 9-12, 2019 or August 6-8, 2019. 2) Attachments to email: (a) CFO Emergency Response Plan; (b) Pipeline Spill Response Tactics for Peters Corners to Toronto.
City of Mississauga				
1900	Email	August 15, 2018	City of Mississauga CanACRE	1) CanACRE provided a crossings and land review package, identifying 20 identified crossings/surplus lands owned by the City of Mississauga, including PDF imagery and a Google Earth KMZ file. 2) CanACRE requested review and comment of the files by the City of Mississauga. 3) Attachment to email: Crossings and land review package.
1921	Email	September 14, 2018	City of Mississauga CanACRE	1) The City of Mississauga provided comments on the crossings package (see August 15, 2018 email, ROC1900).
1950	Email	December 7, 2018	City of Mississauga CanACRE	1) CanACRE provided Imperial's response to City of Mississauga's crossing package comments (see September 14, 2019 email, ROC1921).
2492	Email *	February 1, 2019	City of Mississauga CanACRE	1) CanACRE informed the City of Mississauga that Imperial intends to file a Leave to Construct application for the Project with the OEB and that a pre-application filing of the draft Environmental Report has been submitted. CanACRE provided a link to the draft Environmental Report and provided contact information for feedback.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2783	Email	February 7, 2019	City of Mississauga CanACRE	<p>1) CanACRE requested confirmation that the proposed borehole access routes proposed by Mississauga Transit are acceptable.</p> <p>2) The City of Mississauga provided contact information for CanACRE to request site access.</p> <p>3) CanACRE noted that the Phase 2 Program schedule will be provided by February 8, 2019.</p> <p>4) CanACRE confirmed the winter geotechnical schedule has not changed since its initial submission and that a recirculation of the file should not be necessary.</p> <p>5) CanACRE requested that a draft access agreement for City-owned parcels and that written approval for City-leased parcel be sent as soon as possible.</p>
2754	Phone Call	February 12, 2019	City of Mississauga CanACRE	<p>1) CanACRE requested a meeting on February 14, 2019 to review the upcoming archaeological and geotechnical programs. The City of Mississauga agreed to the meeting date.</p>
2784	Meeting	February 14, 2019	City of Mississauga CanACRE	<p>1) Meeting between the City of Mississauga and CanACRE to review the archaeology and geotechnical programs.</p>
3315	Email	February 14, 2019	City of Mississauga CanACRE	<p>2) CanACRE emailed an updated summary sheet of the borehole program (see February 14, 2019 meeting, ROC2784).</p> <p>3) Attachment to email: Summary of geotechnical program.</p>
2943	Email	February 14, 2019	City of Mississauga CanACRE	<p>1) CanACRE provided an updated summary sheet of the borehole program (see February 14, 2019 meeting, ROC2784).</p> <p>2) Attachment to email: Request for Inspection Form.</p>
2154	Email *	February 19, 2019	City of Mississauga Imperial	<p>1) Imperial provided an update on the Leave to Construct application and inquired about contact information moving forward.</p> <p>2) Imperial noted that the draft Environmental Report is available for review and comments (see February 1, 2019 email, ROC2492).</p>
2159	Email	February 20, 2019	City of Mississauga Hydro One Networks Inc. Infrastructure Ontario CanACRE	<p>1) CanACRE provided notes for the January 17, 2019 meeting.</p> <p>2) Attachment to email: January 17, 2019 meeting notes.</p>
2160	Email	February 20, 2019	City of Mississauga Imperial	<p>1) The City of Mississauga confirmed their main point of contact, and requested that the City Manager and Councillors for Wards 3, 4, 6 and 8 also receive a copy of the Leave to Construction application (see February 19, 2019 email (ROC2154).</p> <p>2) Imperial confirmed that copies of the application notice would be sent to those noted.</p>

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2944	Email	February 27, 2019	City of Mississauga CanACRE	1) CanACRE noted that three parcels with City leases have been identified for Q1 priority boreholes and provided a borehole information table (see February 14, 2019 email, ROC2943). 2) CanACRE requested that the City prioritize providing written approval/conditions for the three Q1 parcels.
2945	Email	March 4, 2019	City of Mississauga CanACRE	1) CanACRE requested an update on the review of the three parcels (see February 27, 2019 email, ROC2944). 2) The City of Mississauga noted that they have reached out to the appropriate personnel and will provide a response soon.
2947	Email	March 7, 2019	City of Mississauga CanACRE	1) The City of Mississauga provided comments and conditions for accessing the three Q1 Priority borehole sites (see March 4, 2019, ROC2945).
2785	Email	March 9, 2019	City of Mississauga CanACRE	1) The City of Mississauga provided comments on the draft geotechnical Public Notice and requested that CanACRE add timing information and a description of the archaeological test pitting (see February 14, 2019 meeting, ROC2784).
3315	Meeting	March 14, 2019	City of Mississauga CanACRE	1) Meeting with the City of Mississauga to discuss the archaeology submission.
3314	Meeting	March 14, 2019	City of Mississauga CanACRE	1) CanACRE emailed the City a summary spreadsheet and imagery provided in hard copy at the meeting (see March 14, 2019 email, ROC3315). CanACRE will provide the public notification letter when prepared. 3) Attachment to email: Summary of archaeology program.
2786	Email	March 14, 2019	City of Mississauga CanACRE	1) CanACRE requested an update on review of the non-priority geotechnical program on City tenant lands (see February 7, 2019 email, ROC2783).
2787	Email	March 15, 2019	City of Mississauga CanACRE	1) CanACRE provided a revised Public Notice for the Stage 2 Program (see March 9, 2019 email, ROC2785).
2493	Letter *	April 3, 2019	City of Mississauga CanACRE	1) The City of Mississauga provided comments on the draft Environmental Report (see February 1, 2019 email, ROC2492). 2) Comments related to: (a) transportation and works - environmental services, MiWay; (b) community services – heritage planning, parks and forestry.
2326	Email	April 24, 2019	City of Mississauga Imperial	1) Imperial provided the City Manager with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2327	Email *	April 24, 2019	City of Mississauga Imperial	1) Imperial provided the City Clerk a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) The City Clerk was also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2328	Email	April 24, 2019	City of Mississauga Imperial	1) Imperial provided the Storm Drain Coordinator with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2393	Letter	April 24, 2019	City of Mississauga Imperial	1) Imperial provided the Mayor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to email: OEB Notice of Hearing.
2394	Letter	April 24, 2019	City of Mississauga Imperial	1) Imperial provided the Ward 3 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to email: OEB Notice of Hearing.
2395	Letter	April 24, 2019	City of Mississauga Imperial	1) Imperial provided the Ward 4 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to email: OEB Notice of Hearing.
2396	Letter	April 24, 2019	City of Mississauga Imperial	1) Imperial provided the Ward 8 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to email: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2397	Letter	April 24, 2019	City of Mississauga Imperial	<p>1) Imperial provided the Ward 6 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor.</p> <p>2) Letter sent by email.</p> <p>3) Attachment to email: OEB Notice of Hearing.</p>
2429	Email	April 25, 2019	City of Mississauga Imperial	<p>1) The Ward 3 Councillor's office inquired if they could publicly share the provided information (see April 24, 2019 letter, ROC2394).</p> <p>2) Imperial responded that they could share this information and suggested they direct the public to the project website for information and questions.</p>
2430	Email	April 25, 2019	City of Mississauga Imperial	<p>1) The Mayor's office noted the update and information was shared with colleagues at the City (see April 24, 2019 letter, ROC2393).</p>
2789	Email	May 2, 2019	City of Mississauga CanACRE	<p>1) CanACRE requested access for upcoming non-intrusive site visits to confirm the proposed access routes are feasible.</p>
2494	Letter *	May 3, 2019	City of Mississauga Imperial	<p>1) Imperial responded to the City's April 3, 2019 letter of comments on the draft Environmental Report (see ROC2493).</p> <p>2) Responses related to: (a) transportation and works - environmental services, MiWay; (b) community services - heritage planning, parks and forestry.</p> <p>3) Letter sent by email.</p> <p>4) Attachments to email: (a) ERP091601 Pipeline Spill Response Tactics – Peters Corners to Toronto; (b) ERP091603 High Water Action Plans and Pipeline Spill Response Tactics; (c) ERP091608 Pipeline Spill Response Tactics – Cooksville Creek; (d) ERP091604 High Water Action Plans and Pipeline Spill Response Tactics.</p>
2790	Email	May 3, 2019	City of Mississauga CanACRE	<p>1) The City of Mississauga granted site access for proposed geotechnical access route reconnaissance (see May 2, 2019 email, ROC2789).</p>
2567	Letter *	May 6, 2019	City of Mississauga Ontario Energy Board (OEB)	<p>1) The City of Mississauga submitted an application to the OEB to become an intervenor. The City does not intend to seek an award of cost and provided contact information for submission of all materials filed in the proceedings.</p> <p>2) Concerns related to: (a) effects on the local environment, city infrastructure, residents and businesses; (b) potential for a spill affecting residents, infrastructure and the environment; (c) need for ongoing maintenance and inspection, and emergency response plans.</p> <p>3) Letter sent by email.</p>

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2684	Email	May 15, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Mississauga City of Toronto Enbridge Gas Inc. Greater Toronto Airports Authority (GTAA) Ontario Energy Board (OEB) WatFin Landowner - Virtanen Imperial	1) The OEB notified the intervenors that Imperial expects to file an affidavit confirming service by May 24, 2019, and that the OEB will continue processing the application once Imperial's affidavit is received.
2593	Email *	May 17, 2019	City of Mississauga Imperial	1) Imperial provided an update on the Project and engagement with the City of Mississauga. 2) Imperial noted that the Greater Toronto Airports Authority (GTAA) submitted a letter of intervention to support the Project.
2791	Email	May 23, 2019	City of Mississauga CanACRE	1) The City of Mississauga confirmed approval of the Public Notice and noted that all property-specific staff comments will be included in the agreement schedule (see March 15, 2019 email, ROC2787).
2792	Email	May 24, 2019	City of Mississauga CanACRE	1) The City of Mississauga requested, and CanACRE provided, the draft Archaeology Agreement for review and comment.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2526	Email	May 31, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. Greater Toronto Airports Authority (GTAA) Hydro One Networks Inc. (HONI) Ontario Energy Board (OEB) WatFin Landowner - Virtanen Imperial	1) The OEB distributed Procedural Order No. 1 to Imperial and the intervenors. The order provided information on the timelines associated with the hearing. 2) Timeline is as follows: (a) information requests from the OEB and intervenors submitted by June 14, 2019; (b) Imperial responses to information requests by July 2, 2019; (c) written submissions from the OEB and intervenors by July 12, 2019; (d) written reply from Imperial by July 22, 2019. 3) Attachment to email: Procedural Order No. 1.
2793	Email	May 31, 2019	City of Mississauga CanACRE	1) CanACRE provided notification for non-intrusive walking surveys scheduled for June 7, 2019 to review the watercourse that runs through the property.
2490	Phone Call	June 5, 2019	City of Mississauga CanACRE	1) CanACRE called the Stormwater Drainage Coordinator to confirm if the City would be responding to Imperial's response to the City's comments on the draft Environmental Report (see May 3, 2019 letter, ROC2494). The City may provide comments on the final Environmental Report. 2) The City asked the difference between the January and February versions of the Environmental Report.
2491	Email	June 7, 2019	City of Mississauga CanACRE	1) CanACRE provided Imperial's response regarding the draft Environmental Report (see June 5, 2019 phone call, ROC2490). Imperial noted that the City's comments on the draft Environmental Report were not provided within the 30-day comment period, and the report had been resubmitted to the OEB before they were received. While there are no plans to resubmit the Environmental Report to the OEB, Imperial is committed to ongoing consultation with the City to fully address all comments and concerns.
2495	Letter *	June 7, 2019	City of Mississauga Ontario Energy Board (OEB)	1) The City of Mississauga notified the OEB of a change in contact for the City. 2) The City requested a one-month extension of the hearing process noting that the City of Toronto City of Hamilton, Region of Peel and Halton Region are supportive of this extension. 3) Letter sent by email.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2796	Email	June 7, 2019	City of Mississauga CanACRE	1) CanACRE noted the January and February reports were identical as no comments were received in the 30-day comment period (see June 5, 2019 phone call, ROC2490). 2) CanACRE/Imperial offered to host a meeting to discuss the Project.
2940	Email	June 10, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. Region of Peel Landowner OEB Imperial	1) The OEB provided the intervenors with a copy of Procedural Order No. 2, which provided an updated timeline for the hearing process. 2) Attachment to email: Procedural Order No. 2.
2949	Email	June 11, 2019	City of Mississauga CanACRE	1) The City of Mississauga provided comments on all recent requests to access to leased lands for the Stage 2 Program. Community Services has no objections to the majority of the requests, and provided conditions regarding some of the requests. 2) Attachments to email: (a) Maps of archaeology work on tenant lands; (b) March 7, 2019 email to the City of Mississauga re: priority boreholes (see ROC2947).
2798	Phone Call	June 12, 2019	City of Mississauga CanACRE	1) CanACRE left a voicemail, requesting a call to discuss the comments on the Stage 2 Program (see June 11, 2019 email, ROC2949).
2799	Email	June 14, 2019	City of Mississauga CanACRE	1) Discussed the Stage 2 Program on tenant lands (see June 12, 2019 call, ROC2798). CanACRE confirmed the approval conditions emailed by the City on June 11, 2019 generally seemed acceptable (see June 11, 2019 email, ROC2949). 2) Also discussed the non-intrusive environmental surveys. CanACRE confirmed a new Geotechnical Agreement will be required and that the previously affected parcels have no relevance to the new Agreement. 3) The City of Mississauga notified CanACRE that they have established a joint inter-departmental committee to provide comment response to future City-wide submissions moving forward.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2979	Email	June 14, 2019	City of Mississauga CanACRE	1) Imperial provided notification of non-intrusive environmental surveys and provided the scope of work. 2) Attachments to email: (a) Survey Access Tracker Spreadsheet; (b) Parcel and Arborist Survey Maps; (c) Parcel Boundary Maps.
2992	Email	June 17, 2019	City of Mississauga CanACRE	1) CanACRE confirmed Imperial's acceptance of the conditions for the Stage 2 Program (see June 11, 2019 email, ROC2949). 2) Attachment to email: Parcel Boundary Maps.
2594	Email	June 19, 2019	City of Mississauga CanACRE	1) Discussed the Archaeology Agreement (see May 24, 2019 email, ROC2792). 2) Attachment to email: List of affected land parcels.
3505	Email	June 21, 2019	City of Mississauga CanACRE	1) The City of Mississauga provided the revised amendment (see June 19, 2019 email, ROC2594). 2) Attached: Revised draft Consent to Enter Agreement.
2595	Letter	June 21, 2019	City of Mississauga CanACRE	1) CanACRE provided a Permitting Supplementary Information Package for seven identified Mississauga land crossings locations and eight identified Mississauga lands impacted by temporary workspace. 2) Attachment to letter: Permitting Supplementary Information Package.
2596	Email	June 24, 2019	City of Mississauga CanACRE	1) The City of Mississauga requested mapping for the temporary requirements (see June 21, 2019 letter, ROC2595). 2) Imperial noted they are shown on the same drawings as the proposed pipeline (already provided). 3) Attachment to email: Permitting Supplementary Information Package.
2801	Email	June 24, 2019	City of Mississauga CanACRE	1) Discussed temporary workspace requirements (see June 24, 2019 email, ROC2596). 2) CanACRE noted the summary table in the June 21, 2019 submission differentiates between City parcels for temporary workspace and permanent pipeline (see ROC2595). 3) The City of Mississauga confirmed they will review and circulate the submission.
2802	Email	June 24, 2019	City of Mississauga CanACRE	1) Discussed the request for permanent easements (see June 21, 2019 email, ROC2595).
2803	Email	June 24, 2019	City of Mississauga CanACRE	1) The City of Mississauga provided a final draft Archaeology Agreement (June 19, 2019 email, ROC2594). [permission granted by the City in July] 2) CanACRE left a voicemail for the City of Mississauga, to discuss the public signage posting requirements in the agreement. 3) Attachment to email: Archaeology Agreement.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2804	Email	June 21, 2019	City of Mississauga CanACRE	1) The City of Mississauga provided a Geotechnical Agreement for review (June 14, 2019 email, ROC2799). [agreement executed in July] 2) Attachment to email: Draft Geotechnical Agreement.
2597	Email *	June 26, 2019	City of Mississauga Imperial	1) Imperial requested a meeting with the City of Mississauga to discuss Imperial's Emergency Response Plan and process, suggesting during July 9-12, 2019 or August 6-8, 2019. 2) Attachments to email: (a) CFO Emergency Response Plan; (b) St. GeoPeters Corners Emergency Response Plan; (c) Emergency Response Plan Etobicoke Creek; (d) Emergency Response Plan Cooksville Creek; (e) Emergency Response Plan Credit River; (f) ERP091604 High Water Action Plans and Pipeline Spill Response Tactics; (g) ERP091608 Pipeline Spill Response Tactics – Cooksville Creek; (g) ERP091603 High Water Action Plans and Pipeline Spill Response Tactics.
3057	Email	June 27, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. OKT Law (HWN) Region of Peel Landowner OEB Imperial Universal Pegasus International	1) The OEB provided the intervenors with a copy of their response to HWN's June 25, 2019 request for intervenor status (see June 26, 2019 email, ROC3046), noting that Imperial did not object to HWN's request. Although the request was received after the deadline, the OEB is satisfied that HWN has a "substantial interest" in the proceeding and has accepted HWN as an intervenor. 2) Attachment to email: OEB response to HWN request for intervenor status.
2675	Email	June 28, 2019	City of Mississauga	1) The City of Mississauga will forward potential ERP meeting dates to the appropriate staff (see June 26, 2019 email, ROC2597). The City requested logistics for the meeting.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
City of Toronto				
2736	Email	February 1, 2019	City of Toronto CanACRE	1) CanACRE informed the City of Toronto that Imperial intends to file a Leave to Construct application for the Project with the OEB and that a pre-application filing of the draft Environmental Report has been submitted. CanACRE provided a link to the draft Environmental Report and provided contact information for feedback.
2712	Meeting	February 1, 2019	City of Toronto Imperial	1) Meeting with the Ward 1 Councillor to provide a project update, including pipeline location, public engagement, regulatory process and ongoing communications.
2737	Email	February 6, 2019	City of Toronto CanACRE	1) The City of Toronto confirmed receipt of the Draft Environmental Report (see February 1, 2019 email).
2738	Email	February 7, 2019	City of Toronto CanACRE	1) CanACRE requested comments on the road crossing submission as soon as possible.
2778	Phone Call	February 7, 2019	City of Toronto CanACRE	1) CanACRE requested that the geotechnical equipment crossings over Toronto Water assets be permitted by email approval rather than a formal agreement.
2739	Phone Call	February 8, 2019	City of Toronto CanACRE	1) CanACRE requested a conference call with Major Capital Infrastructure Coordination to discuss the delay in review of all submissions (Archaeology Agreement, geotechnical crossings, comments on preliminary surplus land impacts and comments on preliminary road crossings). Conference call scheduled for February 12, 2019.
2740	Meeting	February 8, 2019	City of Toronto Imperial	1) Meeting with the Ward 6 Councillor to provide a project overview following ward boundary changes, including pipeline location, public engagement, regulatory process and ongoing communications.
2648	Conference Call	February 12, 2019	City of Toronto CanACRE Imperial	1) Conference call with the City of Toronto to discuss project submissions. Topics included: (a) project submissions currently under review by Toronto Real Estate Services; (b) determine resources/information that could be provided to support prompt reviews; and (c) determine future submission requirements for permanent pipeline crossings and temporary workspaces.
2741	Email	February 20, 2019	City of Toronto CanACRE	1) CanACRE requested an update on the road crossing submission (February 7, 2019 email, ROC2738, and also ROC2842).
2755	Email	February 21, 2019	City of Toronto CanACRE	1) CanACRE provided the Property Officer with the archaeology program information for review and circulation.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2676	Email	February 25, 2019	City of Toronto CanACRE	1) CanACRE provided a summary of the February 12, 2019 conference call (see ROC2648). CanACRE noted that all CanACRE actions from the call have been completed. 2) Attachments: (a) February 12, 2019 conference call notes; (b) summary spreadsheet of submissions waiting for review; (c) Grant of Easement template from Imperial.
2743	Email	March 5, 2019	City of Toronto CanACRE	1) CanACRE requested Transportation Services' response on the road crossing submission (see February 26, 2019 call, ROC2846).
2185	Email	March 6, 2019	City of Toronto Imperial	1) Imperial requested a main point of contact for the Project, and provided a link to access the environmental report submitted to the OEB.
2744	Email	March 7, 2019	City of Toronto CanACRE	1) CanACRE requested Transportation Services' response on the road crossing submission (see March 5, 2019 email, ROC2743, and also ROC2846).
2197	Email	March 14, 2019	City of Toronto Toronto and Region Conservation Authority (TRCA) Imperial	1) The TRCA requested that a link to the Environmental Report be provided to the City of Toronto contact as he did not receive the link from Imperial (see March 8, 2019 email with TRCA, ROC2189).
2200	Email	March 18, 2019	City of Toronto Toronto and Region Conservation Authority (TRCA) ERM Group	1) Imperial provided a copy of the draft Environmental Report link to the City of Toronto following the TRCA request (see March 14, 2019 email, ROC2197).
2932	Conference Call	March 20, 2019	City of Toronto CanACRE	1) Conference call with the City of Toronto Property Officer and Real Estate Services Acting Manager to discuss timing of City approval of submissions (Archaeology Agreement, Geotechnical Crossing Agreement and comments on preliminary surplus land impacts). 2) The City will update the summary tracking spreadsheet with their expected turnaround times.
2277	Email	March 25, 2019	City of Toronto Imperial	1) Imperial requested a main point of contact for the City (see March 6, 2019 email, ROC2185).
2745	Phone Call	March 25, 2019	City of Toronto CanACRE	1) The City confirmed they have no comments on the road crossing submission (see March 7, 2019 email, ROC2744). CanACRE requested that confirmation in writing.
2746	Email	March 25, 2019	City of Toronto CanACRE	1) CanACRE provided notes for the March 20, 2019 conference call (see ROC2932), and requested availability for a follow-up call on March 28 or 29, 2019.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2278	Email	March 26, 2019	City of Toronto Imperial	1) The City will get back to Imperial with their main point of contact (see March 25, 2019 email, ROC2277).
2279	Email	April 8, 2019	City of Toronto Imperial	1) Imperial asked if the City had determined their main point of contact (see March 26, 2019 email , ROC2278).
2280	Email	April 9, 2019	City of Toronto Imperial	1) 1) The City of Toronto's main point of contact will be the Director of Engineering Review, Engineering & Construction Services; contact information provided (see April 8, 2019 email, ROC2279). The City also provided contacts for other City divisions (Engineering & Construction Services, Water and Transportation Services).
2281	Email	April 10, 2019	City of Toronto Imperial	1) Imperial notified the Director of Engineering Review that the Leave to Construct Application has been filed with the OEB and that Imperial will be circulating a notice of application to initiate public engagement. 2) Imperial suggested an update meeting; the City suggested any time after April 23, 2019. The City requested project information in advance of the meeting.
2575	Email	April 16, 2019	City of Toronto CanACRE	1) CanACRE submitted a Permitting Supplementary Information Package for road crossing locations for review and approval. 2) CanACRE noted that submissions for other crossings and city lands will be submitted at a later date. 3) Attachments: (a) Permitting Supplementary Information Package, including Schedule A – drawings for City of Toronto road crossings; Schedule B – drawings for MTO crossings, and Schedule C – listing of construction-related equipment. 4) [Utility cut permits were issued in July 2019.]
2747	Phone Call	April 17, 2019	City of Toronto CanACRE	1) CanACRE left a voicemail for the Property Officer, requesting an update on the Archaeological and Field Studies Agreement (see March 15, 2019 call, ROC2851). 2) The Property Officer responded later that day, noting the document has been circulated within the Parks & Recreation department, but no comments have yet been received.
2285	Email	April 23, 2019	City of Toronto Imperial	1) Imperial provided the City of Toronto with the link to the project website and notified the City that Imperial will be sending out a Notice of Application in the next few days (see April 10, 2019 email, ROC2281). 2) Imperial requested potential meeting dates.
2329	Email	April 24, 2019	City of Toronto Imperial	1) Imperial provided the Director of Engineering Review with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2330	Email	April 24, 2019	City of Toronto Imperial	1) Imperial provided the City Manager with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment: OEB Notice of Hearing.
2331	Email *	April 24, 2019	City of Toronto Imperial	1) Imperial provided the City Clerk with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment: OEB Notice of Hearing. 3) The City Clerk was also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2398	Letter	April 24, 2019	City of Toronto Imperial	1) Imperial provided the Ward 1 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment: OEB Notice of Hearing.
2399	Letter	April 24, 2019	City of Toronto Imperial	1) Imperial provided the Ward 2 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment: OEB Notice of Hearing.
2400	Letter	April 24, 2019	City of Toronto Imperial	1) Imperial provided the Ward 6 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment: OEB Notice of Hearing.
2401	Letter	April 24, 2019	City of Toronto Imperial	1) Imperial provided the Ward 7 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2402	Letter	April 24, 2019	City of Toronto Imperial	1) Imperial provided the Mayor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment: OEB Notice of Hearing.
2299	Email	April 29, 2019	City of Toronto Imperial	1) The City of Toronto requested a list of city staff Imperial has met or corresponded with regarding the Project.
2302	Email	April 30, 2019	City of Toronto Imperial	1) Imperial agreed to compile a list of city staff Imperial has met or corresponded with (see April 29, 2019 email, ROC 2299).
2438	Email	May 2, 2019	City of Toronto Imperial	1) Imperial provided the requested list of staff and officials Imperial has met or worked with since the project launch in May 2018, and inquired about how communications should occur moving forward (see April 30, 2019 email, ROC2302). 2) Imperial requested an integrated meeting with the City to provide an update, and discuss timelines and deliverables (see April 23, 2019 email, ROC2285). 3) The City asked who Imperial had contacted within Toronto Fire Services.
2779	Email	May 2, 2019	City of Toronto CanACRE	1) The Property Officer advised that the archaeology program for City-owned lands is being reviewed by City staff. 2) The Property Officer provided archaeology program approval for select Hydro One properties where the City is a tenant (see April 17, 2019 phone call, ROC2747). 3) CanACRE advised that non-intrusive work will be conducted to confirm the proposed access routes are feasible.
2496	Email *	May 3, 2019	City of Toronto Imperial	1) Imperial provided information on the large-scale emergency response exercise held in October 2018, as well as a list of those who participated in the exercise – which included Toronto Fire Services staff (see May 2, 2019 email, ROC2438). 2) Imperial would also like to meet with emergency services representatives to discuss the Project in more detail.
2565	Letter *	May 3, 2019	City of Toronto Ontario Energy Board (OEB)	1) 1) The City of Toronto submitted an application to the OEB to become an intervenor, noting they have an interest in the application because of the potential project impacts on infrastructure, lands and waters within its jurisdiction.
2549	Email	May 9, 2019	City of Toronto Imperial	1) The Director of Engineering Review requested a call to discuss the Project.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2552	Email	May 10, 2019	City of Toronto Imperial	1) Imperial is available for a call that day, and requested the City's questions so the required information could be prepared in advance of the call (see May 9, 2019 email, ROC2549).
3234	Email	May 13, 2019	City of Toronto Imperial	1) The Director of Engineering Review provided questions for discussion during their call, and suggested a call that day (see May 10, 2019 email, ROC2552).
3235	Email	May 13, 2019	City of Toronto Imperial	1) Call to discuss the Project scheduled for May 16, 2019 (see May 13, 2019 email, ROC3234).
2918	Email	May 14, 2019	City of Toronto CanACRE	1) The Property Officer provided a revised draft Archaeology Agreement for Imperial to review (see May 2, 2019 email, ROC2779). 2) Contacts for frontline City staff were provided to approach for technical comments on the survey access as the Property Officer had been unable to get these comments directly to date. 3) Attachment: Draft Archaeology Agreement.
2570	Email	May 15, 2019	City of Toronto Imperial	1) Imperial provided an update on the Project and the City's request for intervenor status, and noted that permitting and technical collaboration with the City is ongoing. Imperial offered to answer any questions or meet with the Ward 1 Councillor.
2571	Email	May 15, 2019	City of Toronto Imperial	1) Imperial provided an update on the Project and the City's request for intervenor status, and noted that permitting and technical collaboration with the City is ongoing. Imperial offered to answer any questions or meet with the Ward 2 Councillor.
2572	Email	May 15, 2019	City of Toronto Imperial	1) Imperial provided an update on the Project and the City's request for intervenor status, and noted that permitting and technical collaboration with the City is ongoing. Imperial offered to answer any questions or meet with the Ward 6 Councillor.
2573	Email	May 15, 2019	City of Toronto Imperial	1) Imperial provided an update on the Project and the City's request for intervenor status, and noted that permitting and technical collaboration with the City is ongoing. Imperial offered to answer any questions or meet with the Ward 7 Councillor. 2) The Councillor responded they would like to meet to discuss, and will contact Imperial to arrange a meeting.
2574	Email	May 15, 2019	City of Toronto Imperial	1) Imperial provided an update on the Project and the City's request for intervenor status to the Mayor's Chief of Staff, and noted that permitting and technical collaboration with the City is ongoing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2684	Email	May 15, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Mississauga City of Toronto Enbridge Gas Inc. Greater Toronto Airports Authority (GTAA) Ontario Energy Board (OEB) Landowner Imperial	1) The OEB notified the intervenors that Imperial expects to file an affidavit confirming service by May 24, 2019, and that the OEB will continue processing the application once Imperial's affidavit is received.
2576	Email	May 16, 2019	City of Toronto CanACRE	1) Discussed the crossing submission provided on April 16, 2019 (see ROC2575), Following the call, CanACRE resubmitted the Permitting Supplementary Information Package for the road crossing locations.
2577	Email	May 16, 2019	City of Toronto Imperial	1) Imperial provided an update on the Project and the City's request for intervenor status, and noted that permitting and technical collaboration with the City is ongoing. Imperial offered to answer any questions or meet with the Ward 11 Councillor. 2) Attachment: Project overview map.
3236	Phone Call	May 16, 2019	City of Toronto Imperial	1) Imperial provided a project update. 2) The recent motion passed by the City was acknowledged. Discussed the working relationship going forward. 3) An integrated meeting is not required; the Director of Engineering Review will be the point of contact (see May 3, 2019 email, ROC2496). 4) The City of Toronto may involve Major Capital Infrastructure to avoid construction conflicts.
2578	Email	May 21, 2019	City of Toronto Imperial	1) The Ward 11 Councillor acknowledged receipt of the project information, and noted there is no need to set up a meeting at this time (see May 16, 2019 email, ROC2577).
2497	Email	May 23, 2019	City of Toronto CanACRE	1) Major Capital Infrastructure Coordination recommended that Imperial present project information at one of the Toronto Public Utilities Coordinating Committee (TPUCC) meetings.
2580	Email	May 28, 2019	City of Toronto Imperial	1) The Ward 7 Councillor's office suggested a meeting on June 10, 2019 (see May 15, 2019 email, ROC2573).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2581	Email	May 29, 2019	City of Toronto Imperial	1) Imperial suggested meeting on June 7, 2019 instead of June 10, 2019 (see May 28, 2019 email, ROC2580); the Councillor agreed to the revised meeting date.
2526	Email	May 31, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. Greater Toronto Airports Authority (GTAA) Hydro One Networks Inc. Ontario Energy Board (OEB) Landowner Imperial	1) The OEB distributed Procedural Order No. 1 to Imperial and the intervenors. The order provided information on the timelines associated with the hearing. 2) Timeline is as follows: (a) information requests from the OEB and intervenors submitted by June 14, 2019; (b) Imperial responses to information requests by July 2, 2019; (c) written submissions from the OEB and intervenors by July 12, 2019; (d) written reply from Imperial by July 22, 2019. 3) Attachment: Procedural Order No. 1.
2749	Email	May 31, 2019	City of Toronto CanACRE	1) CanACRE notified the Water and Parks, Forestry & Recreation Divisions of non-intrusive walking surveys scheduled for June 6 and 7, 2019 to review a watercourse, and requested any concerns.
2751	Email	June 3, 2019	City of Toronto CanACRE	1) Discussed an Imperial presentation at the June 5, 2019 TPUCC meeting. CanACRE to confirm Imperial's availability.
2752	Phone Call	June 4, 2019	City of Toronto CanACRE	1) The TPUCC Chair advised that the agenda slot anticipated for June 5, 2019 is no longer available, and will schedule Imperial into the agenda of the next meeting (date to be determined) (see June 3, 2019 email, ROC2751).
2753	Email	June 5, 2019	City of Toronto CanACRE	1) The TPUCC Chair confirmed the next meeting will be on September 4, 2019 (see June 4, 2019 call, ROC2752).
3237	Meeting	June 7, 2019	City of Toronto Imperial	1) Imperial provided an overview of the Project to the Ward 7 Councillor.
2499	Email	June 10, 2019	City of Toronto National Public Relations	1) The Parkland Acquisition Manager requested project information and mapping that will allow them to assess potential impacts on the City of Toronto parks and open space system.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2940	Email	June 10, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. Region of Peel Landowner OEB Imperial	1) The OEB provided the intervenors with a copy of Procedural Order No. 2, which provided an updated timeline for the hearing process. 2) Attachment to email: Procedural Order No. 2.
2498	Email	June 11, 2019	City of Toronto CanACRE	1) Major Capital Infrastructure Coordination requested confirmation of the project timeline so the City can work collaboratively with Imperial to mitigate potential conflicts with City capital work planned for 2019 and 2020. 2) The City provided a link to their projects map, and requested a pipeline location shapefile.
2762	Email	June 11, 2019	City of Toronto Toronto and Region Conservation Authority (TRCA) CanACRE	1) CanACRE notified the Parks, Forestry & Recreation and Infrastructure Planning & Permits Divisions of non-intrusive environmental surveys planned for June and July 2019. 2) Attachment: (a) List of properties affected by the surveys and timeline; (b) Survey scope of work.
3310	Email	June 12, 2019	City of Toronto CanACRE	1) The City of Toronto acknowledged receipt of the survey notification (see June 11, 2019 email, ROC2762).
2764	Email	June 13, 2019	City of Toronto CanACRE	1) CanACRE notified the Water and Parks, Forestry & Recreation Divisions of non-intrusive arborist surveys scheduled for June 17 to July 19, 2019. A description of the survey was provided. 2) Attachment: Survey scope of work.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2583	Email	June 14, 2019	City of Toronto CanACRE	1) CanACRE provided pre-consultation applications and support material for two proposed above-ground pipeline valves that are part of the larger Waterdown to Finch Project. 2) CanACRE requested a meeting with the Planning Department to discuss the valve proposals. CanACRE also requested that the City confirm that this work meets their definition of "Development".
2982	Email	June 14, 2019	City of Toronto CanACRE	1) CanACRE notified Parks, Forestry & Recreation of non-intrusive environmental surveys, along with approximate timelines and scope of work. 2) Attachment: Survey scope of work.
2769	Email	June 14, 2019	City of Toronto CanACRE	1) CanACRE notified Parks, Forestry & Recreation of archaeology surveys relating to Boreholes 85 and 86. 2) Attachment: Survey scope of work.
2770	Email	June 14, 2019	City of Toronto CanACRE	1) CanACRE notified the Transportation Services and Parks, Forestry & Recreation Divisions of non-intrusive arborist surveys, along with approximate timelines and scope of work. 2) Attachment: Survey scope of work.
2781	Email	June 14, 2019	City of Toronto CanACRE	1) CanACRE notified Real Estate Services of non-intrusive surveys, along with approximate timelines and scope of work. 2) Attachment: Survey scope of work.
2981	Email	June 14, 2019	City of Toronto CanACRE	1) CanACRE provided notice of upcoming arborist surveys and a description of the scope of work. 2) The City of Toronto provided a link to additional information to support the arborist surveys and two application forms: one for trees on City property and one for trees in ravine designated areas. 3) Attachment to email: (a) Application to Injure or Remove Trees; and (b) Ravine and Natural Feature Permit Application.
2983	Email	June 14, 2019	City of Toronto CanACRE	1) CanACRE provided notice of upcoming non-intrusive environmental surveys. 2) Attachments to email: (a) Survey Access Tracker Spreadsheet; and (b) Survey Scopes of Work.
3306	Email	June 14, 2019	City of Toronto CanACRE	1) CanACRE provided notice of upcoming test pitting work in Centennial Park.
3307	Email	June 14, 2019	City of Toronto CanACRE	1) CanACRE provided notice to Parks, Forestry & Recreation of non-intrusive arborist surveys on the Habitant Arena property, along with approximate timelines and scope of work.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3308	Email	June 14, 2019	City of Toronto CanACRE	1) CanACRE provided notice to Parks, Forestry & Recreation of non-intrusive arborist surveys between Norfinch Drive and Sentinel Road, along with approximate timelines and scope of work.
2771	Email	June 17, 2019	City of Toronto CanACRE	1) CanACRE advised Parkland Acquisitions that pipeline route information is available through the City's online mapping system, and that preliminary drawings are included in the Leave to Construction application (link provided) (see June 10, 2019 email, ROC2499).
2772	Email	June 17, 2019	City of Toronto CanACRE	1) CanACRE confirmed the presentation at the September 4, 2019 TPUCC meeting (see June 5, 2019 email, ROC2753).
2773	Email	June 17, 2019	City of Toronto CanACRE	1) CanACRE provided Major Capital Infrastructure Coordination with the project timeline, as well as shapefiles of the pipeline route. CanACRE noted the shapefiles were submitted to the City on December 7, 2018, and are included in the City's online mapping system (see June 11, 2019 email, ROC2498). 2) CanACRE requested a high-level overview of potential conflicts and any specific concerns. 3) Attachment: Pipeline shapefile.
3238	Phone Call	June 17, 2019	City of Toronto CanACRE	1) Discussed the pipeline valve pre-consultation submission. The Planning Consultant confirmed the proposals are not "developments" and do not need a Planning Act application (see June 14, 2019 email, ROC2583). Feedback has been requested from the Building Consultant; the City will respond in writing once it is received.
2585	Email	June 18, 2019	City of Toronto CanACRE	1) The City of Toronto confirmed that they do not consider this proposal a "Development" and that a Site Plan Approval will not be required (see June 17, 2019 call, ROC3238).
2774	Email	June 19, 2019	City of Toronto CanACRE	1) CanACRE requested that Parks, Forestry & Recreation extend the Parks Access Agreement from June 30, 2019 to December 31, 2019 as Imperial has not yet completed their archaeological and geotechnical surveys. CanACRE also requested that the additional scope approved by the Parks Supervisor be included in the extended agreement.
2590	Email	June 21, 2019	City of Toronto CanACRE	1) CanACRE submitted a Permitting Supplementary Information Package for land crossing locations and other identified Toronto lands impacted by temporary workspace for review and approval (see April 16, 2019 email, ROC2575). 2) Attachment: Permitting Supplementary Information Package.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2592	Email	June 26, 2019	City of Toronto Imperial	1) Imperial requested a meeting to discuss the Imperial Emergency Response Plans, and provided copies of the current plans, and asked if the Director of Engineering Review would like to facilitate organizing the meeting or if Imperial should contact Emergency Services directly (see May 3, 2019 email, ROC2496). Imperial suggested a meeting during July 9-12 or August 6-8, 2019. 2) Attachments: (a) CFO Emergency Response Plan; (b) Pipeline Spill Response Tactics for Peters Corners to Toronto, Mimico Creek; (c) High Water Action Plans and Pipeline Spill Response Tactics – Etobicoke Creek, Humber River.
2775	Email	June 26, 2019	City of Toronto CanACRE	1) CanACRE provided a revised Archaeology Agreement and completed schedules for review (see May 14, 2019 email, ROC2918).
2776	Email	June 27, 2019	City of Toronto CanACRE	1) Parks, Forestry & Recreation agreed to extend the Parks Access Agreement to December 31, 2019 (see June 19, 2019 email, ROC2774). 2) CanACRE accepted the proposed extension.
3057	Email	June 27, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. OKT Law (HWN) Region of Peel Landowner OEB Imperial Universal Pegasus International	1) The OEB provided the intervenors with a copy of their response to HWN's June 25, 2019 request for intervenor status (see June 26, 2019 email, ROC3046), noting that Imperial did not object to HWN's request. Although the request was received after the deadline, the OEB is satisfied that HWN has a "substantial interest" in the proceeding and has accepted HWN as an intervenor. 2) Attachment: OEB response to HWN request for intervenor status.
Enbridge Gas Inc.				
3244	Email	February 28, 2019	Enbridge Gas Inc. CanACRE	1) CanACRE requested information about existing Enbridge facilities and supplementary documentation to assist with project design.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3245	Email	March 1, 2019	Enbridge Gas Inc. CanACRE	1) Enbridge provided the requested information (see February 28, 2019 email, ROC3244), along with their third-party requirements. 2) Attachment to email: Third-party requirements in the vicinity of natural gas facilities.
2338	Email *	April 24, 2019	Enbridge Gas Inc. Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2568	Letter *	May 6, 2019	Enbridge Gas Inc. Imperial	1) Enbridge submitted an application to OEB to become an intervenor as Enbridge has a direct interest in all matters of jurisdiction, substance and procedure in the regulation of public utilities, and in any decision of the OEB, which may create a precedent affecting Enbridge Gas' operations and/or rates. 2) Letter sent by email.
2684	Email	May 15, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Mississauga City of Toronto Enbridge Gas Inc. Greater Toronto Airports Authority (GTAA) Landowner Ontario Energy Board (OEB) Imperial	1) The OEB notified the intervenors that Imperial expects to file an affidavit confirming service by May 24, 2019, and that the OEB will continue processing the application once Imperial's affidavit is received.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2526	Email	May 31, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Hydro One Networks Inc. Landowner OEB Imperial	1) The OEB distributed Procedural Order No. 1 to Imperial and the intervenors. The order provided information on the timelines associated with the hearing. 2) Timeline is as follows: (a) information requests from the OEB and intervenors submitted by June 14, 2019; (b) Imperial responses to information requests by July 2, 2019; (c) written submissions from the OEB and intervenors by July 12, 2019; (d) written reply from Imperial by July 22, 2019. 3) Attachment to email: Procedural Order No. 1.
2940	Email	June 10, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. Region of Peel Landowner OEB Imperial	1) The OEB provided the intervenors with a copy of Procedural Order No. 2, which provided an updated timeline for the hearing process. 2) Attachment to email: Procedural Order No. 2.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3057	Email	June 27, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. OKT Law (HWN) Region of Peel Landowner OEB Imperial Universal Pegasus International	1) The OEB provided the intervenors with a copy of their response to HWN's June 25, 2019 request for intervenor status (see June 26, 2019 email, ROC3046), noting that Imperial did not object to HWN's request. Although the request was received after the deadline, the OEB is satisfied that HWN has a "substantial interest" in the proceeding and has accepted HWN as an intervenor. 2) Attachment to email: OEB response to HWN request for intervenor status.
Enbridge Pipelines Inc.				
3241	Email	February 7, 2019	Enbridge Pipelines Inc. CanACRE	1) CanACRE requested confirmation that the plans provided on January 31, 2019 for Borehole 18 were sufficient; Enbridge confirmed they were.
3242	Email	February 22, 2019	Enbridge Pipelines Inc. CanACRE	1) CanACRE requested an update on review of the plans provided on January 31, 2019 (see February 7, 2019 email, ROC3241).
3243	Email	February 27, 2019	Enbridge Pipelines Inc. CanACRE	1) Enbridge provided the amending agreement for Borehole 18 for signing (see February 22, 2019 email, ROC3242). 2) Attachment to email: Amending agreement.
3247	Email	March 8, 2019	Enbridge Pipelines Inc. CanACRE	1) CanACRE submitted revised drawings for temporary geotechnical crossings related to Borehole 68. 2) Attachment to email: Revised drawings.
3246	Email	March 13, 2019	Enbridge Pipelines Inc. CanACRE	1) Enbridge provided the plan views for the requested locations (see February 28, 2019 email, ROC3244). 2) Attachments to email: Plan views for 13 locations.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3248	Email	March 21, 2019	Enbridge Pipelines Inc. CanACRE	1) Enbridge advised that the proposed work is in the vicinity of a vital main, and that the guidelines provided must be followed (see March 8, 2019 email, ROC3247). Enbridge has no objection to the proposed work. 2) Attachments to email: Vital Main Standby Letter.
3249	Email	March 26, 2019	Enbridge Pipelines Inc. CanACRE	1) CanACRE provided a permanent and temporary crossings request and application form for 21 identified locations, along with links to the drawings, and detailed vehicle and equipment specifications.
3250	Email	April 9, 2019	Enbridge Pipelines Inc. CanACRE	1) Enbridge provided a list of requests related to the crossings request (see March 26, 2019 email, ROC3249).
3251	Email	April 24, 2019	Enbridge Pipelines Inc. CanACRE	1) CanACRE responded to Enbridge's list of requests (see April 9, 2019 email, ROC3250).
3252	Email	May 2, 2019	Enbridge Pipelines Inc. CanACRE	1) CanACRE requested clarification on one of Enbridge's requests (see April 24, 2019 email, ROC3251).
3253	Email	May 6, 2019	Enbridge Pipelines Inc. CanACRE	1) Enbridge provided the requested clarification regarding HDD requirements (see May 2, 2019 email, ROC3252).
2339	Email	April 24, 2019	Enbridge Pipelines Inc. Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment: OEB Notice of Hearing. 3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
3254	Email	June 4, 2019	Enbridge Pipelines Inc. CanACRE	1) CanACRE has identified ground disturbance areas within 30 m of Enbridge's NEB-regulated facilities. A file showing the locations was provided. 2) Attachment to email: File showing ground disturbance areas.
3255	Email	June 6, 2019	Enbridge Pipelines Inc. CanACRE	1) CanACRE identified a new crossing, and provided a plan showing the crossing. 2) CanACRE requested that the existing agreement be amended to include the additional crossing. 3) Attachments to email: (a) Plan of new crossing; (b) Agreement for amendment.
Greater Toronto Airports Authority (GTAA)				
3256	Letter *	May 6, 2019	GTAA Ontario Energy Board (OEB)	1) The GTAA submitted an application to the OEB to become an intervenor, noting they have an interest in the application and plan to support Imperial's application with additional evidence to substantiate the need for the Project as well as provide an overview of the economic impact of having a reliable supply of fuel to support the Toronto Pearson Airport.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2684	Email	May 15, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Landowner OEB Imperial	1) The OEB notified the intervenors that Imperial expects to file an affidavit confirming service by May 24, 2019, and that the OEB will continue processing the application once Imperial's affidavit is received.
2526	Email	May 31, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Hydro One Networks Inc. Landowner OEB Imperial	1) The OEB distributed Procedural Order No. 1 to Imperial and the intervenors. The order provided information on the timelines associated with the hearing. 2) Timeline is as follows: (a) information requests from the OEB and intervenors submitted by June 14, 2019; (b) Imperial responses to information requests by July 2, 2019; (c) written submissions from the OEB and intervenors by July 12, 2019; (d) written reply from Imperial by July 22, 2019. 3) Attachment to email: Procedural Order No. 1.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2940	Email	June 10, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. Region of Peel Landowner OEB Imperial	1) The OEB provided the intervenors with a copy of Procedural Order No. 2, which provided an updated timeline for the hearing process. 2) Attachment to email: Procedural Order No. 2.
3057	Email	June 27, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. OKT Law (HWN) Region of Peel Landowner OEB Imperial Universal Pegasus International	1) The OEB provided the intervenors with a copy of their response to HWN's June 25, 2019 request for intervenor status (see June 26, 2019 email, ROC3046), noting that Imperial did not object to HWN's request. Although the request was received after the deadline, the OEB is satisfied that HWN has a "substantial interest" in the proceeding and has accepted HWN as an intervenor. 2) Attachment to email: OEB response to HWN request for intervenor status.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
Halton Region				
2149	Email *	February 1, 2019	Halton Region CanACRE	1) CanACRE informed Halton Region that Imperial intends to file a Leave to Construct application for the Waterdown to Finch Project with the OEB and that a pre-application filing of the draft Environmental Report has been submitted. CanACRE provided a link to the draft Environmental Report and provided contact information for feedback.
2829	Email	February 4, 2019	Halton Region CanACRE	1) CanACRE provided the Supervisor of Road Operations and Maintenance with a link to review the draft Environmental Report.
2150	Email	February 8, 2019	Halton Region CanACRE	1) CanACRE provided Legislative and Planning Services with a link to review the draft Environmental Report.
2156	Email	February 19, 2019	Halton Region Imperial	1) Imperial informed Halton Region that Imperial is planning to submit its Leave to Construct application to the OEB and inquired about contact information moving forward. 2) Halton Region will confirm their main contact going forward.
2727	Email	February 22, 2019	Halton Region CanACRE	1) CanACRE provided the Road Operations Supervisor with mapping imagery for the archaeological surveys on WTFN0042, and will follow up to confirm the agreement type required for the parcel.
2728	Phone Call	February 27, 2019	Halton Region CanACRE	1) The Realty Officer advised CanACRE that other work will be occurring in the area over the next six months, and Halton Region will need to determine if a Licence Agreement can still be executed for Parcel WTFN1041 around the schedule (see February 22, 2019 email, ROC2727). CanACRE later emailed the project schedule for the parcel, and requested the schedule for Halton Region work.
2177	Email	February 28, 2019	Halton Region Imperial	1) Halton Region confirmed the main contact should be the Public Works Permits Team, and provided their contact information (see February 19, 2019 email, ROC2156).
2180	Email	March 4, 2019	Halton Region Imperial	1) Imperial updated Halton Region's contact information and inquired if they the previous contact person would like to receive future correspondence (see February 28, 2019 email, ROC2177).
2830	Phone Call	March 6, 2019	Halton Region CanACRE	1) CanACRE asked if a License Agreement can be executed for the 2019 archaeological surveys; Halton Region is still determining this (see February 27, 2019 call, ROC2728).
2831	Email	March 8, 2019	Halton Region CanACRE	1) The Realty Officer advised that Halton Region will be undertaking construction on WTFN1041 from April 1 to September 30, 2019, and that Imperial will not be able to undertake archaeological surveys during this time (see March 6, 2019 call, ROC2830). 2) In a call later that day, CanACRE requested a construction schedule so the archaeological survey could be undertaken when construction is not underway.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2832	Email	March 14, 2019	Halton Region CanACRE	1) CanACRE asked if a time separation between the archaeological survey and Halton Region construction could be accommodated (see March 8, 2019 email, ROC2831).
2730	Email	March 18, 2019	Halton Region CanACRE	1) Halton Region provided a Municipal Consent Permit for the archaeological survey on WTFN0042 (see February 27, 2019 call, ROC2728 and also ROC2727).
2202	Email	March 19, 2019	Halton Region Imperial	1) Halton Region confirmed the names and contacts of the individuals who should receive future correspondence (see March 4, 2019 email, ROC2180).
3259	Phone Call	March 19, 2019	Halton Region CanACRE	1) CanACRE left a voicemail regarding if the time separation between the archaeological survey and Halton Region construction could be accommodated (see March 14, 2019 email, ROC2832, and also ROC2831).
3312	Email	March 19, 2019	Halton Region CanACRE	1) CanACRE provided the signed Municipal Consent Permit (see March 18, 2019 email, ROC2730).
2835	Phone Call	March 20, 2019	Halton Region CanACRE	1) CanACRE left a voicemail regarding if the time separation between the archaeological survey and Halton Region construction could be accommodated (see March 19, 2019 call, ROC3259, and also ROCs 2831 and 2832).
3313	Email	March 21, 2019	Halton Region CanACRE	1) Halton Region asked that CanACRE coordinate their inspections with the assigned Regional Inspector (see March 19, 2019 email, ROC3312).
3260	Email	March 21, 2019	Halton Region CanACRE	1) CanACRE asked if the time separation between the archaeological survey and Halton Region construction could be accommodated (see March 20, 2019 call, ROC2835). 2) The Realty Officer advised that Halton Region would not be able to accommodate the time separation if the two work areas overlap.
3261	Phone Call	March 25, 2019	Halton Region CanACRE	1) CanACRE left a voicemail, asking if Halton Region had determined if the survey area and construction area overlap (see March 21, 2019 email, ROC3260).
3262	Phone Call	April 4, 2019	Halton Region CanACRE	1) Halton Region is determining if the areas overlap (see March 25, 2019 call, ROC3261).
3263	Email	April 9, 2019	Halton Region CanACRE	1) CanACRE left a voicemail, followed up with an email, asking if the two areas overlap (see April 4, 2019 call, ROC3262, and also ROC3261).
3264	Phone Call	April 11, 2019	Halton Region CanACRE	1) CanACRE left a voicemail asking if the two areas overlap (see April 9, 2019 email, ROC3263, and also ROCs 3161 and 3262).
3265	Email	April 17, 2019	Halton Region CanACRE	1) CanACRE left a voicemail, followed up with an email, asking if the two areas overlap (see April 11, 2019 call, ROC3264, and also ROCs 3261, 3262, 3263).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3266	Email	April 18, 2019	Halton Region CanACRE	1) CanACRE advised the Manager of Realty Services of recent unsuccessful attempts to contact the Realty Officer regarding overlap of the archaeological survey and construction areas, and provided mapping imagery of the test pitting and ploughing areas as well as a scope of work for the surveys (see April 17, 2019 email, ROC3265, and also ROCs 3261, 3262, 3263, 3264). 2) Attachments to email: (a) mapping imagery of survey area; (b) archaeological survey scope of work.
3267	Phone Call	April 24, 2019	Halton Region CanACRE	1) CanACRE left a voicemail for the Manager of Realty Services regarding overlap of the two areas (see April 18, 2019 call, ROC3266, and also ROCs 3262, 3263, 3264, 3265),
2366	Email	April 24, 2019	Halton Region Imperial	1) Imperial provided the Realty Officer and Supervisor, Road Operations with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2367	Email	April 24, 2019	Halton Region Imperial	1) Imperial provided the CAO with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2368	Email *	April 24, 2019	Halton Region Imperial	1) Imperial provided the City Clerk with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) The City Clerk was also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2414	Letter	April 24, 2019	Halton Region Imperial	1) Imperial provided the Regional Chair with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2885	Phone Call	April 25, 2019	Halton Region CanACRE	1) The Realty Officer advised there is no defined project area for their construction work, and suggested that CanACRE follow up with the Project Manager regarding if a Licence Agreement can be executed (see April 24, 2019 call, ROC3267).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2437	Email	May 1, 2019	Halton Region National Public Relations	1) Halton Region requested a copy of the Emergency Response Plan (ERP) for review.
2504	Email *	May 3, 2019	Halton Region Imperial	1) Imperial provided the existing project ERPs for Halton and the surrounding region, and offered a meeting with the Emergency Management Department to discuss and provide further detail (see May 1, 2019 email, ROC2437). 2) Attachments to email: ERPs for Peters Corners to Toronto, 16 Mile Creek and Bronte Creek.
2544	Email	May 8, 2019	Halton Region Imperial	1) Halton Region acknowledged receipt of the ERPs (see May 3, 2019 email, ROC2504, and requested a comprehensive ERP that includes further details on Imperial's emergency response structure and processes.
2833	Email	May 13, 2019	Halton Region CanACRE	1) CanACRE asked the Realty Officer if they have determined if a time separation between the archaeology survey and construction work is possible (see April 25, 2019 call, ROC2885, and also ROC3267).
2598	Email	May 17, 2019	Halton Region Imperial	1) Imperial is in the process of updating the ERPs, and requested a meeting to discuss emergency response with the local operations team (see May 8, 2019 email, ROC2544).
2599	Email	May 28, 2019	Halton Region Imperial	1) Halton Region requested a draft copy of the ERP and any other emergency response materials, after which a meeting can be arranged (see May 17, 2019 email, ROC2598).
2729	Letter *	May 31, 2019	Halton Region Ontario Energy Board (OEB)	1) Region of Halton submitted an application to the OEB to become an intervenor, noting that they have a direct interest in the application because approximately 22.5 km of the proposed pipeline will be located on lands under Halton Region's jurisdiction.
2506	Letter *	June 5, 2019	Halton Region Ontario Energy Board (OEB)	1) The OEB responded to Halton Region's May 31, 2019 request for intervenor status, noting that Imperial did not object to Halton Region's request. Although the request was received after the deadline, the OEB is satisfied that Halton Region has a "substantial interest" in the proceeding and has accepted Halton Region as an intervenor. 2) Letter sent by email. 3) Attachment to email: Procedural Order No. 1.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2940	Email	June 10, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. Greater Toronto Airports Authority (GTAA) Halton Region Hydro One Networks Inc. Region of Peel Landowner Ontario Energy Board (OEB) Imperial	1) The OEB provided the intervenors with a copy of Procedural Order No. 2, which provided an updated timeline for the hearing process. 2) Attachment to email: Procedural Order No. 2.
2836	Email	June 12, 2019	Halton Region CanACRE	1) CanACRE provided a detailed archaeology scope of work for incorporation into the Consent to Enter Agreement for the archaeology work to begin in August after construction is complete (see May 13, 2019 email, ROC2833). 2) Attachment to email: (a) archaeology scope of work.
2615	Email	June 24, 2019	Halton Region CanACRE	1) CanACRE provided a Permitting Supplementary Information Package for Halton Region-owned lands impacted by the permanent pipeline crossing and temporary workspace, and requested that the submission be reviewed. 2) Attachment to email: Permitting Supplementary Information Package.
2600	Email	June 25, 2019	Halton Region Imperial	1) Imperial provided the general ERP to supplement the site-specific ERPs for water courses in Halton Region (see May 28, 2019 email, ROC2599). 2) Discussed potential meeting dates. Halton Region to confirm August 6 or 7, 2019. 3) Attachment to email: General ERP.
2601	Email	June 27, 2019	Halton Region Imperial	1) Imperial suggested meeting on August 6, 2019 (see June 25, 2019 email, ROC2600).
2602	Email	June 27, 2019	Halton Region CanACRE	1) Halton Region requested a plan and profile of the crossing (see June 24, 2019 email, ROC2615).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3057	Email	June 27, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. OKT Law (HWN) Region of Peel Landowner OEB Imperial Universal Pegasus International	1) The OEB provided the intervenors with a copy of their response to HWN's June 25, 2019 request for intervenor status (see June 26, 2019 email, ROC3046), noting that Imperial did not object to HWN's request. Although the request was received after the deadline, the OEB is satisfied that HWN has a "substantial interest" in the proceeding and has accepted HWN as an intervenor. 2) Attachment to email: OEB response to HWN request for intervenor status.
2603	Email	June 28, 2019	Halton Region CanACRE	1) CanACRE provided the requested plan and profile (see June 27, 2019 email, ROC2602).
3063	Email	June 28, 2019	Halton Region Imperial	1) Halton Region confirmed their availability for a meeting on June 6, 2019 (see June 27, 2019 email, ROC2601).
Hydro One Networks Inc.				
3311	Email	February 5, 2019	Hydro One CanACRE	1) Imperial provided the land tenure spreadsheet, and requested confirmation of ownership of a parcel. 2) Hydro One confirmed the parcel is owned by Hydro One.
2159	Email	February 20, 2019	City of Mississauga Hydro One Infrastructure Ontario CanACRE	1) CanACRE provided notes for the January 17, 2019 meeting. 2) Attachment to email: January 17, 2019 meeting notes.
2282	Meeting	February 26, 2019	Hydro One Imperial	1) Hydro One Senior Management met with Imperial to discuss and provide rationale for the compensation formula and the width of the pipeline easement.
2805	Email	February 28, 2019	Hydro One Imperial	1) Imperial provided the signed Hydro One Feasibility Study Agreement and requested that Hydro One fully execute and return the agreement.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2806	Email	March 8, 2019	Hydro One CanACRE	1) CanACRE provided imagery showing the revised archaeological survey areas for the spring 2019 Stage 2 Program. 2) Attachment to email: Survey area map.
2807	Email	March 8, 2019	Hydro One CanACRE	1) CanACRE notified Hydro One of upcoming geotechnical surveys.
2705	Letter	March 18, 2019	Hydro One Imperial	1) Imperial responded to Hydro One's January 11, 2019 letter, noting that the minimum easement outlined by Infrastructure Ontario and Hydro One during meetings and in the letter was not acceptable as Imperial does not believe a 10-m easement is required for a trenchless pipeline.
2562	Email	April 3, 2019	Hydro One CanACRE	1) CanACRE provided a Permitting Supplementary Information Package for permanent utility crossings.(Submissions 1 and 2). 2) CanACRE requested that Hydro One review the submissions and provide comments/approvals. 3) A set of Temporary Workspace drawings will be provided for the Grant of Easement and the Temporary Use and Access Agreement. 4) Attachment to email: Permitting Supplementary Information Package for Submissions 1 and 2.
2563	Email	April 4, 2019	Hydro One CanACRE	1) Hydro One will review the submission (see April 3, 2019 email, ROC2562). 2) CanACRE informed Hydro One that some proximity drawings for the submissions are missing and asked Hydro One to wait before distributing the drawings to stakeholders. 3) CanACRE inquired if hard copies of the proximity drawings will be needed.
2564	Email	April 8, 2019	Hydro One CanACRE	1) Hydro One provided preliminary comments on the Permitting Supplementary Information Package (Submissions 1 and 2). Comments related to: temporary workspace drawings, profile view, towers, temporary workspace and load standards (see April 3, 2019 email, ROC2562).
2709	Letter	April 8, 2019	Hydro One Imperial	1) Hydro One responded to Imperial's March 18, 2019 letter regarding the minimum easement width (see ROC2705).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2283	Email	April 10, 2019	Hydro One Imperial	<p>1) Hydro One summarized engagement to date regarding the compensation formula and minimum pipeline easement width, noting the meetings on December 20, 2018 and February 26, 2019 (ROC2282), and the letters of January 11, 2019, March 18, 2019 (ROC2705) and April 8, 2019 (ROC2709).</p> <p>2) Hydro One will not submit the next phase of drawings for the Feasibility Study to stakeholders until the minimum pipeline easement widths have been accepted (see April 8, 2019 letter, ROC2709).</p> <p>3) Attachments to email: Hydro One letters of January 11 and April 8, 2019.</p>
3275	Letter	April 15, 2019	Hydro One OEB	<p>1) Hydro One submitted an application to the OEB to become an intervenor, noting they have an interest in the application because of the potential impact of the new pipeline on existing Hydro One transmission and distribution lines.</p>
2808	Email	April 22, 2019	Hydro One CanACRE	<p>1) CanACRE provided notification for upcoming boreholes to be drilled.</p> <p>2) Attachment to email: Temporary Use and Access Agreement.</p>
2289	Letter	April 23, 2019	Hydro One Imperial	<p>1) Imperial responded to Hydro One's April 8, 2019 letter and April 10, 2019 email regarding the minimum pipeline easement width (see ROCs 2709 and 2283).</p> <p>2) Imperial confirmed that there is no alternate route for the pipeline and requested that Hydro One/Infrastructure Ontario continue with the Feasibility Study review as planned, and requested that Hydro One/Infrastructure Ontario confirm the review will proceed.</p> <p>3) As the companies are at an impasse regarding the easement width for the trenchless pipeline, Imperial has informed senior officials at the MGCS of the situation.</p>
2341	Email *	April 24, 2019	Hydro One Imperial	<p>1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor.</p> <p>2) Attachment to email: OEB Notice of Hearing.</p> <p>3) Imperial also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).</p>
3268	Email	April 24, 2019	Hydro One Imperial	<p>1) Hydro One advised Imperial they will wait to provide a formal package to stakeholders until after the revised drawings are received, Feasibility Study fee is received and other matters under discussion between Hydro One, Infrastructure Ontario and Imperial have been settled (see April 8, 2019 email, ROC2564).</p>
3269	Email	April 25, 2019	Hydro One Imperial	<p>1) Imperial provided the Permitting Supplementary Information Package for Submission 4.</p> <p>2) Attachment: Permitting Supplementary Information Package.</p>

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2809	Email	April 25, 2019	Hydro One CanACRE	1) CanACRE provided notification for upcoming non-intrusive site meets with crossing owners for the Stage 2 Program. 2) Attachment to email: Notice of Entry.
2810	Email	May 1, 2019	Hydro One CanACRE	1) Hydro One provided the Temporary Use and Access Agreement approving equipment and vehicle access to boreholes 35 and 36.
2811	Email	May 2, 2019	Hydro One CanACRE	1) CanACRE provided notification for upcoming site reconnaissance surveys for the Stage 2 Program.
2604	Email	May 17, 2019	Hydro One CanACRE	1) CanACRE submitted revised Permitting Supplementary Information Package schedules for Submissions 1, 3, and 4 with additional information to address many of the April 8, 2019 email comments (see ROC2564). Submission 2 will be provided the following week. 2) Attachment to email: Revised Permitting Supplementary Information Package schedules.
3270	Email	May 6, 2019	Hydro One CanACRE	1) Hydro One provided the executed Temporary Use and Access Agreement and confirmed the updated conditions to accompany the Temporary Use and Access Agreement (see May 1, 2019 email, ROC2810).
2605	Email	May 21, 2019	Hydro One CanACRE	1) Hydro One requested a "key" map(s) showing locations of the pipeline routing to accompany packages circulated to all requisite stakeholders (see May 17, 2019 email, ROC2604).
2606	Email	May 22, 2019	Hydro One CanACRE	1) CanACRE provided TWS drawings for the stakeholder packages (see May 21, 2019 email, ROC2605). The maps provide a continuous look at the proposed pipeline on corridor lands. CanACRE noted that the finalized drawing should be available at the end of May. 2) Attachment to email: TWS drawings.
2812	Email	May 23, 2019	Hydro One CanACRE	1) CanACRE provided notification for upcoming bird sweeps as part of the geotechnical survey program.
2607	Email	May 24, 2019	Hydro One CanACRE	1) Hydro One requested a call to discuss the detailed maps to accompany the stakeholder packages (see May 22, 2019 email, ROC2606).
3271	Email	May 27, 2019	Hydro One CanACRE	1) CanACRE provided revised drawings and schedules for Permitting Supplementary Information Package Submissions 1, 3 and 4, as well as the Submission 2 drawings. 2) Attachments to email: Revised Permitting Supplementary Information Package drawings and schedules.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2608	Email	May 28, 2019	Hydro One CanACRE	<p>1) CanACRE and Hydro One discussed the Permitting Supplementary Information Package drawings, after which CanACRE emailed a higher level route map (see May 24, 2019 email, ROC2607). CanACRE will provide the remaining detailed TWS drawings the following week.</p> <p>2) Hydro One provided requested revisions to the map.</p> <p>3) Attachment to email: Overview route map.</p>
2526	Email	May 31, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. Greater Toronto Airports Authority (GTAA) Hydro One Landowner Ontario Energy Board (OEB) Imperial	<p>1) The OEB distributed Procedural Order No. 1 to Imperial and the intervenors. The order provided information on the timelines associated with the hearing.</p> <p>2) Timeline is as follows: (a) information requests from the OEB and intervenors submitted by June 14, 2019; (b) Imperial responses to information requests by July 2, 2019; (c) written submissions from the OEB and intervenors by July 12, 2019; (d) written reply from Imperial by July 22, 2019.</p> <p>3) Attachment to email: Procedural Order No. 1.</p>
2813	Email	June 6, 2019	Hydro One CanACRE	1) CanACRE provided notification for upcoming visual assessments for the Stage 2 Program.
2609	Email	June 7, 2019	Hydro One CanACRE	1) CanACRE provided notification for upcoming boreholes to be drilled.
3272	Email	June 7, 2019	Hydro One CanACRE	1) CanACRE provided the TWS drawings for the Permitting Supplementary Information Package (see May 28, 2019 email, ROC2608).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2940	Email	June 10, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Region of Peel Landowner OEB Imperial	1) The OEB provided the intervenors with a copy of Procedural Order No. 2, which provided an updated timeline for the hearing process. 2) Attachment to email: Procedural Order No. 2.
2814	Email	June 11, 2019	Hydro One CanACRE	1) CanACRE provided notification for upcoming non-intrusive environmental surveys for the Stage 2 Program (see June 6, 2019 email, ROC2813). 2) Attachment to email: Property Information Spreadsheet for Stage 2 Program.
2610	Email	June 13, 2019	Hydro One CanACRE	1) Hydro One inquired if the revised Permitting Supplementary Information Package drawings would be available on June 14, 2019 (see May 28, 2019 email, ROC2608). 2) CanACRE noted that the drawings would not be available by the requested date and will provide a status update the following week.
2611	Email	June 14, 2019	Hydro One CanACRE	1) CanACRE provided notification for upcoming boreholes to be drilled.
3273	Email	June 18, 2019	Hydro One CanACRE	1) Hydro One requested clarification on apparent routing discrepancies between the crossing and proximity drawings in the Permitting Supplementary Information Package (see June 7, 2019 email, ROC3272). CanACRE provided clarification.
3274	Email	June 20, 2019	Hydro One CanACRE	1) Hydro One requested AutoCAD files for the Permitting Supplementary Information Package so they can undertake a more detailed analysis (see June 7, 2019 email, ROC3272). CanACRE provided the requested files. 2) Attachment to email: AutoCAD files.
2612	Email	June 21, 2019	Hydro One CanACRE	1) CanACRE provided a revised drawing that shows the changes requested by Hydro One (see June 13, 2019 email, ROC2610). 2) Attachment to email: Overview route map.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2613	Email	June 21, 2019	Hydro One CanACRE	1) CanACRE provided notification for upcoming boreholes to be drilled. 2) Attachment to email: Temporary Use and Access Agreement.
2614	Email	June 24, 2019	Hydro One CanACRE	1) CanACRE requested access to Hydro One station lands for non-intrusive environmental surveys (arborist and fisheries surveys). A description of the surveys was provided. 2) Attachment to email: Survey scope of work.
2815	Email	June 24, 2019	Hydro One CanACRE	1) CanACRE provided notification for non-intrusive environmental surveys (arborist and fisheries surveys). 2) CanACRE inquired if Imperial could gain access to the specified parcels for the non-intrusive surveys and what notification requirements would apply.
3057	Email	June 27, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One OKT Law (HWN) Region of Peel Landowner OEB Imperial Universal Pegasus International	1) The OEB provided the intervenors with a copy of their response to HWN's June 25, 2019 request for intervenor status (see June 26, 2019 email, ROC3046), noting that Imperial did not object to HWN's request. Although the request was received after the deadline, the OEB is satisfied that HWN has a "substantial interest" in the proceeding and has accepted HWN as an intervenor. 2) Attachment to email: OEB response to HWN request for intervenor status.
Legislative Assembly of Ontario				
2408	Letter *	April 24, 2019	Legislative Assembly of Ontario - Humber River-Black Creek Imperial	1) Imperial provided the Member of Provincial Parliament (MPP) with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3321	Phone Call	May 11, 2019	Legislative Assembly of Ontario - Humber River-Black Creek Imperial	1) The MPP's office left a voicemail to request a meeting.
3322	Phone Call	May 14, 2019	Legislative Assembly of Ontario - Humber River-Black Creek Imperial	1) Discussed potential meeting date of May 24, 2019 (see May 11, 2019 call, ROC3321).
2698	Email	May 23, 2019	Legislative Assembly of Ontario - Humber River-Black Creek Imperial	1) Meeting with the MPP scheduled for May 24, 2019. Attendees confirmed.
3283	Meeting	May 24, 2019	Legislative Assembly of Ontario - Humber River-Black Creek Imperial	1) Meeting with the MPP to provide a project update, including pipeline location, public engagement, regulatory process and ongoing communications. 2) The MPP requested an opportunity to visit a construction site.
2702	Email	May 27, 2019	Legislative Assembly of Ontario - Humber River-Black Creek Imperial	1) Imperial suggested May 31, 2019 for a site visit to the Credit River Valley Project area construction site in the context of the Waterdown to Finch Project. A drive along the proposed pipeline route in the Humber River-Black Creek riding could also be arranged (see May 24, 2019 meeting, ROC3283).
2707	Email	May 28, 2019	Legislative Assembly of Ontario - Humber River-Black Creek Imperial	1) The MPP's office confirmed the site visit (see May 27, 2019 email, ROC2702).
3299	Site Visit	May 31, 2019	Legislative Assembly of Ontario - Humber River-Black Creek Imperial	1) Site visit with the MPP's office to view the Credit River Valley Project construction site.
2928	Email *	June 6, 2019	Legislative Assembly of Ontario - Humber River-Black Creek Imperial	1) Imperial provided photos from the site visit (see ROC3299). 1) Imperial is working with the MPP's office to plan a drive along the planned route in the MPP's community (see May 27, 2019 email, ROC2702). 2) Imperial provided information on the Project and Imperial's efforts to minimize impacts to people and the environment, related to: (a) collaboration and engagement with Indigenous communities; (b) safety and performance; (c) minimizing construction impacts; (d) direct community investment.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2411	Letter *	April 24, 2019	Legislative Assembly of Ontario - Flamborough-Glanbrook Imperial	1) Imperial provided the MPP with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2406	Letter *	April 24, 2019	Legislative Assembly of Ontario - Milton Imperial	1) Imperial provided the MPP with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2407	Letter *	April 24, 2019	Legislative Assembly of Ontario - Mississauga Centre Imperial	1) Imperial provided the MPP with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2409	Letter *	April 24, 2019	Legislative Assembly of Ontario - Mississauga East-Cooksville Imperial	1) Imperial provided the MPP with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2404	Letter *	April 24, 2019	Legislative Assembly of Ontario - Mississauga-Malton Imperial	1) Imperial provided the MPP with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2405	Letter *	April 24, 2019	Legislative Assembly of Ontario - York Centre Imperial	1) Imperial provided the MPP with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2410	Letter *	April 24, 2019	Legislative Assembly of Ontario – Mississauga-Erin Mills Imperial	1) Imperial provided the MPP with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2412	Letter *	April 24, 2019	Legislative Assembly of Ontario - Oakville North-Burlington Imperial	1) Imperial provided the MPP with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2413	Letter *	April 24, 2019	Legislative Assembly of Ontario - Premier's Office Imperial	1) Imperial provided the Premier with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2531	Email	May 3, 2019	Legislative Assembly of Ontario - Premier's Office Imperial	1) The Premier of Ontario thanked Imperial for the project update and forwarded the email to MENDM (see April 24, 2019 letter, ROC2413).
Metrolinx				
2355	Email *	April 24, 2019	Metrolinx Metrolinx (AECOM) Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2955	Email	June 11, 2019	Metrolinx CanACRE	1) CanACRE provided notification of non-intrusive arborist surveys. A description of the surveys was provided. 2) Attachment to email: Parcel and Arborist Survey Maps.
Milton Hydro				
2356	Email *	April 24, 2019	Milton Hydro Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
Oakville Hydro				
2364	Email *	April 24, 2019	Oakville Hydro Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2957	Email	June 11, 2019	Oakville Hydro CanACRE	1) CanACRE provided notification of non-intrusive arborist surveys and listed the conditions provided by Oakville Hydro. A description of the surveys was provided. 2) Attachments to email: (a) Email Records; (b) Survey Access Tracker; (c) Arborist Survey SOW; (d) Parcel and Arborist Survey Map.
Protecting Escarpment Rural Land				
2142	Email *	February 14, 2019	Protecting Escarpment Rural Land (PERL) Imperial	1) Imperial provided responses to PERL (see January 17, 2019 email) and a link to the FTP website to access the Environmental Report, and noted that Imperial intends to file the full Leave to Construct Application in the coming weeks. 2) Responses related to: (a) pipeline depth; (b) trenching; (c) monitoring of PSWs and salamander breeding ponds; (d) Permit to Take Water; (e) Jefferson Salamander regulated habitat; (f) proximity to Enbridge; (g) temporary workspace and deactivation; (h) Niagara Escarpment / Mount Nemo Plateau; (i) natural heritage areas; (j) Grindstone Creek Headwaters Complex PSW; (k) Mount Nemo Trib 2A and Species at Risk; (l) horizontal directional drill; (m) drilling fluids; (m) Niagara Escarpment Development Permit.
2365	Email *	April 24, 2019	Protecting Escarpment Rural Land (PERL) Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
Region of Peel				
3276	Email	February 1, 2019	Region of Peel CanACRE	1) CanACRE noted that Imperial intends to file a Leave to Construct application and that a pre-application filing of the draft Environmental Report has been submitted. CanACRE provided a link to the draft Environmental Report and provided contact information for feedback.
3277	Email	February 11, 2019	Region of Peel CanACRE	1) CanACRE requested identification of the owner of underground facilities.
2731	Email	February 11, 2019	Region of Peel CanACRE	1) CanACRE requested a conference call on February 12, 2019 to discuss outstanding requests, which were listed.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2732	Phone Call	February 12, 2019	Region of Peel CanACRE	1) Region of Peel provided an update on the outstanding requests (see February 11, 2019 email, ROC2731).
3278	Email	February 15, 2019	Region of Peel CanACRE	1) The Region of Peel provided a map showing their infrastructure in Imperial's area of interest (see February 11, 2019 email, ROC3277). 2) Attachment to email: Map of infrastructure.
2157	Email	February 19, 2019	Region of Peel Imperial	1) Imperial informed the Region of Peel that Imperial intends to file a Leave to Construct application for the Project with the OEB and that a pre-application filing of the draft Environmental Report has been submitted. Imperial provided a link to the draft Environmental Report and provided contact information for feedback. 2) Imperial requested confirmation of the contact for the Region of Peel.
2168	Email	February 22, 2019	Region of Peel Imperial	1) Region of Peel confirmed contact information and noted that they will review and assess the documents submitted to the OEB (see February 19, 2019 email, ROC 2157). 2) Region of Peel requested a meeting to discuss the Project.
2174	Email	February 26, 2019	Region of Peel Imperial	1) Imperial confirmed willingness to hold an initial meeting and asked that the Region of Peel contact Imperial to set one up (see February 22, 2019 email, ROC2168).
3279	Email	April 15, 2019	Region of Peel CanACRE	1) CanACRE provided a Permitting Supplementary Information Package for Region-owned permanent road crossings, and requested that the submission be reviewed.
2369	Email	April 24, 2019	Region of Peel Imperial	1) Imperial provided the City Clerk with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) The City Clerk was also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2370	Email	April 24, 2019	Region of Peel Imperial	1) Imperial provided the Manager, Development Services Planning with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2415	Letter	April 24, 2019	Region of Peel Imperial	1) Imperial provided the Regional Chair with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2434	Email	April 25, 2019	Region of Peel Imperial	1) Region of Peel confirmed they will continue to work with Imperial in the review of the Project (see April 24, 2019 email, ROC2370). 2) Imperial noted they would be happy to meet with the Region of Peel to discuss this further (see February 26, 2019 email, ROC2174).
2618	Email *	May 31, 2019	Region of Peel Imperial	1) Following a call to discuss the Project, Imperial provided general Project information and a link to the Project application, evidence for the Leave to Construct and the Environmental Report. Imperial also provided a link to the OEB application page and noted that they have been directed to issue a Notice of Hearing on April 24, 2019. Imperial also listed the Region of Peel contacts who received the Notice of Hearing. 2) The Region of Peel will advise Imperial if anything further is required.
3280	Email	May 31, 2019	Region of Peel Ontario Energy Board (OEB)	1) Region of Peel requested information from the OEB regarding applying for status as a late intervenor.
3301	Email	June 3, 2019	Region of Peel Imperial	1) The Region of Peel asked if a Franchise Agreement is in place for the old pipeline, and if Imperial will be updating agreements for the municipalities through which the replacement pipeline will run.
2795	Letter *	June 4, 2019	Ontario Energy Board (OEB) Region of Peel	1) Region of Peel submitted an application to the OEB to become an intervenor, noting they have an interest in the application because certain sections of the proposed pipeline will be located in the Region and the construction and operation of the pipeline will affect municipal infrastructure.
2502	Letter *	June 5, 2019	Ontario Energy Board (OEB) Region of Peel	1) The OEB responded to Region of Peel's June 4, 2019 request for intervenor status (see ROC2795), noting that Imperial did not object to Region of Peel's request. Although the request was received after the deadline, the OEB is satisfied that Region of Peel has a "substantial interest" in the proceeding and has accepted Region of Peel as an intervenor. 2) Letter sent by email. 3) Attachment to letter: Procedural Order No. 1.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3302	Email	June 10, 2019	Region of Peel Imperial	1) Imperial advised that the Franchise Agreement applies to natural gas distribution within a municipality and is not applicable to the Project (see June 3, 2019 email, ROC3301). The Waterdown to Finch replacement pipeline will transport liquid fuels (gasoline, diesel and jet fuel) to an Imperial terminal facility in Toronto, from which it is distributed to customers. 2) The Region of Peel acknowledged the confirmation.
2940	Email	June 10, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. Greater Toronto Airports Authority (GTAA) Halton Region Hydro One Networks Inc. Region of Peel Landowner Ontario Energy Board (OEB) Imperial	1) The OEB provided the intervenors with a copy of Procedural Order No. 2, which provided an updated timeline for the hearing process. 2) Attachment to email: Procedural Order No. 2.
2734	Email	June 12, 2019	Region of Peel CanACRE	1) CanACRE provided notification for a non-intrusive environmental arborist survey. A description of the survey and anticipated survey dates were provided. 2) Attachment to email: Survey scope of work.
2622	Email *	June 26, 2019	Region of Peel Imperial	1) Imperial requested a meeting with the Regional Emergency Management Program Lead to discuss Imperial's Emergency Response Plan (ERP) and Process for establishing construction ERPs. Imperial provided the current ERP, as well as site-specific response plans for watercourse in the Region of Peel. 2) Attachments to email: (a) CFO Emergency Response Plan; (b) High-Water Action Plans for Credit River and Etobicoke Creek; (c) Pipeline Spill Response Tactics for Peters Corners to Toronto and Cooksville Creek.
2735	Email	June 26, 2019	Region of Peel CanACRE	1) CanACRE requested a call with Region of Peel on June 27, 2019 to discuss the arborist survey notification (see June 12, 2019 email, ROC2734).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
3057	Email	June 27, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. OKT Law (HWN) Region of Peel Landowner OEB Imperial Universal Pegasus International	1) The OEB provided the intervenors with a copy of their response to HWN's June 25, 2019 request for intervenor status (see June 26, 2019 email, ROC3046), noting that Imperial did not object to HWN's request. Although the request was received after the deadline, the OEB is satisfied that HWN has a "substantial interest" in the proceeding and has accepted HWN as an intervenor. 2) Attachment to email: OEB response to HWN request for intervenor status.
3281	Email	June 27, 2019	Region of Peel City of Mississauga CanACRE	1) CanACRE sent a meeting invite for July 9, 2019 to discuss the submission and review process for permanent road and utility crossings. Copies of previously submitted road crossing packages were provided. 2) Attachment to email: Road crossing packages for Region of Peel and City of Mississauga.
3282	Email	June 27, 2019	Region of Peel CanACRE	1) The Region of Peel provided the Acknowledgement and Consent Agreement for Crossings 48, 60 and 83.
Sun-Canadian Pipelines				
2372	Email *	April 24, 2019	Sun-Canadian Pipelines Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
Telus				
2316	Email *	April 24, 2019	Telus Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
Toronto Hydro				
2380	Email *	April 24, 2019	Toronto Hydro Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2958	Email	June 11, 2019	Toronto Hydro CanACRE	1) CanACRE provided notification of non-intrusive arborist surveys. A description of the surveys was provided. 2) Attachments to email: (a) Email Records; (b) Survey Access Tracker; (c) Arborist Survey SOW; (d) Parcel and Arborist Survey Map.
Toronto Transit Commission (TTC)				
2913	Email	February 7, 2019	TTC CanACRE	1) CanACRE requested an update on the submission submitted in January 2019.
3239	Email	February 11, 2019	TTC CanACRE	1) The TTC confirmed a technical review Level 2 will apply, and provided the drawing submission requirements (see February 7, 2019 email, ROC2913).
2919	Meeting	April 4, 2019	TTC CanACRE	1) Meeting between CanACRE and the TTC to review the available construction and as-built drawings for the underground subway crossing location. 2) CanACRE requested, and TTC provided, all drawing list indexes. 3) TTC confirmed that no easement will be required for the subway crossing.
2921	Email	April 11, 2019	TTC CanACRE	1) CanACRE requested the geotechnical report for review.
2920	Email	April 16, 2019	TTC CanACRE	1) The TTC notified CanACRE that the geotechnical report was provided to Imperial (see April 11, 2019 email, ROC2921).
2386	Email	April 24, 2019	TTC CanACRE	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment: OEB Notice of Hearing.
Town of Milton				
2162	Email	February 19, 2019	Town of Milton Imperial	1) Imperial provided an update on the Leave to Construct Application and inquired about contact information moving forward. 2) Imperial noted that the draft Environmental Report is available for review and comments.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2163	Email	February 20, 2019	Town of Milton Imperial	1) The Town of Milton provided contact information for those to be notified upon submission of the Leave to Construct and moving forward (see February 19, 2019 email, ROC2162).
2374	Email	April 24, 2019	Town of Milton Imperial	1) Imperial provided the Right-of-Way Technician with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2375	Email	April 24, 2019	Town of Milton Imperial	1) Imperial provided the Chief Administrative Officer with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2376	Email *	April 24, 2019	Town of Milton Imperial	1) Imperial provided the City Clerk with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) The City Clerk was also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2417	Letter	April 24, 2019	Town of Milton Imperial	1) Imperial provided the Ward 4 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2418	Letter	April 24, 2019	Town of Milton Imperial	1) Imperial provided the Ward 3 Regional Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2419	Letter	April 24, 2019	Town of Milton Imperial	1) Imperial provided the Ward 3 Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2420	Letter	April 24, 2019	Town of Milton Imperial	1) Imperial provided the Ward 4 Regional Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2421	Letter	April 24, 2019	Town of Milton Imperial	1) Imperial provided the Mayor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2969	Email	June 12, 2019	Town of Milton CanACRE	1) CanACRE provided notification of non-intrusive environmental surveys. A description of the surveys was provided. 2) Attachments to email: (a) October 2018 Email Thread; (b) Imperial Agreement Items Email; (c) Road Occupancy Permit; (d) Survey Tracker Spreadsheet; (e) Survey Scope of Work.
3047	Email	June 26, 2019	Town of Milton Imperial	1) Imperial requested a meeting with the Town of Milton to discuss Imperial's Emergency Response Plan and process, suggesting during July 9-12, 2019 or August 6-8, 2019. 2) Attachments to email: (a) CFO Emergency Response Plan; (b) Pipeline Spill Response Tactics for Peters Corners to Toronto; and (c) Pipeline Spill Response Tactics for 16 Mile Creek.
3058	Email	June 27, 2019	Town of Milton Imperial	1) The City of Milton thanked Imperial for providing information on Emergency Response Plans and provided contact information (see June 26, 2019 email, ROC3047).
3066	Email	June 28, 2019	Town of Milton Imperial	1) Imperial inquired if the Town of Milton would be available for a meeting sometime during July 9-12 or August 6-8, 2019 (see June 27, 2019 email, ROC3048).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
Town of Oakville				
2155	Email	February 19, 2019	Town of Oakville Imperial	1) Imperial provided an update on the Leave to Construct Application and inquired about contact information moving forward. 2) Imperial noted that the draft Environmental Report is available for review and comments.
2184	Email	March 6, 2019	Town of Oakville Imperial	1) The Town of Oakville provided contact information for ongoing correspondence for the Project (see February 19, 2019 email, ROC2155). 2) Imperial notified the Town of Oakville of other government authorities and stakeholders who will be notified and provided the link to the project website.
2377	Email *	April 24, 2019	Town of Oakville Imperial	1) Imperial provided the City Clerk with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing. 3) The City Clerk was also sent hard copies by postal mail of Exhibit A of the Leave to Construct Application and Notice of Hearing (in English and French).
2378	Email	April 24, 2019	Town of Oakville Imperial	1) Imperial provided the Chief Administrative Officer with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2379	Email	April 24, 2019	Town of Oakville Imperial	1) Imperial provided the Research Policy Analyst – Air with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2422	Letter	April 24, 2019	Town of Oakville Imperial	1) Imperial provided the Mayor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2423	Letter	April 24, 2019	Town of Oakville Imperial	1) Imperial provided the Ward 7 Regional Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2424	Letter	April 24, 2019	Town of Oakville Imperial	1) Imperial provided the Ward 7 Town Councillor with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Letter sent by email. 3) Attachment to letter: OEB Notice of Hearing.
2977	Email	June 13, 2019	Town of Oakville CanACRE	1) CanACRE provided notification of non-intrusive environmental surveys. A description of the surveys was provided. 2) Attachments to email: (a) Oct 2018 Email Thread; (b) Certificate of Insurance; (c) Park Access Application and Permit; (d) Survey Access Tracker Spreadsheet; (e) Survey Scopes of Work.
3015	Email	June 20, 2019	Town of Oakville CanACRE	1) CanACRE provided notification for upcoming non-intrusive environmental surveys. A description of the surveys was provided. 2) Attachments to email: (a) Non-intrusive Survey Notification approved July 19, 2018; (b) Non-intrusive Survey Notification approved October 3, 2018; and (c) Certificate of Insurance.
3041	Email	June 26, 2019	Town of Oakville Imperial	1) Imperial requested a meeting with the Town of Oakville to discuss Imperial's Emergency Response Plan and process, suggesting during July 9-12, 2019 or August 6-8, 2019. 2) Attachments to email: (a) CFO Emergency Response Plan; (b) Pipeline Spill Response Tactics for Peters Corners to Toronto; (c) Pipeline Spill Response Tactics for Bronte Creek; and (d) Pipeline Spill Response Tactics for 16 Mile Creek.
3048	Email	June 26, 2019	Town of Oakville CanACRE	1) CanACRE provided a list and mapping imagery for the parcels where non-intrusive environmental surveys will be conducted (see June 20, 2019 email, ROC3015). 2) Attachments to email: (a) Parcel Survey and Water Crossings Maps; (b) Survey Access Tracker Spreadsheet; and (c) Survey Scopes of Work.
3049	Email	June 26, 2019	Town of Oakville Imperial	1) Imperial requested a meeting with the Town of Oakville to discuss Imperial's Emergency Response Plan and process, suggesting during July 9-12, 2019 or August 6-8, 2019 (see June 26, 2019 email, ROC3041).

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
TransCanada Pipelines				
2381	Email *	April 24, 2019	TransCanada Pipelines Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
Trans-Northern Pipelines				
2373	Email *	April 24, 2019	TransCanada Pipelines Imperial	1) Imperial provided a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
Landowners				
2816	Drop-in Visit/Casual Meeting	March 12, 2019	Landowner CanACRE	1) CanACRE advised the tenants of upcoming archaeology work on the property. The tenants had no concerns.
2817	Drop-in Visit/Casual Meeting	April 29, 2019	Landowner CanACRE	1) CanACRE advised the tenants of upcoming archaeology work on the property. The tenants provided contact information for the Estate Trustee.
2825	Phone Call	April 29, 2019	Landowner CanACRE	1) CanACRE advised the Estate Trustee of upcoming archaeology work that would affect his property, providing information on the work to be completed. 2) It was agreed that the Temporary Workspace Lease Agreement would accommodate sale of the property in the near future. 3) The Estate Trustee gave permission to carry out the archaeological work on the property.
2818	Email	May 1, 2019	Landowner CanACRE	1) CanACRE provided a screenshot of the temporary workspace area on the Estate Trustees' property (see April 29, 2019 call, ROC2825).
2566	Letter *	May 3, 2019	Ontario Energy Board (OEB) Landowner	1) The Estate Trustees submitted an application to the OEB to become an intervenor, noting they have an interest in the application because the Project will cause damage to the subject property, impacts to the enjoyment of the property, safety and liability, traffic, noise, dust, vibrations and resale of the property, impact to the title of the property.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2819	Email	May 9, 2019	Landowner CanACRE	<p>1) CanACRE reviewed the requirements required for the temporary workspace on the Estate Trustees' property, and noted that an agreement will be prepared for review in the next month.</p> <p>2) CanACRE noted that although the Estate Trustee had mentioned selling the parcel, he had not mentioned the additional concerns noted in the May 3, 2019 letter to the OEB (see ROC2566). CanACRE requested a meeting to discuss the Estate Trustees' concerns and how they could be addressed.</p>
2684	Email	May 15, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Mississauga City of Toronto Enbridge Gas Inc. Greater Toronto Airports Authority (GTAA) Landowner Ontario Energy Board (OEB) Imperial	<p>1) The OEB notified the intervenors that Imperial expects to file an affidavit confirming service by May 24, 2019, and that the OEB will continue processing the application once Imperial's affidavit is received.</p>
2820	Email	May 27, 2019	Landowner CanACRE	<p>1) CanACRE left a voicemail for the Estate Trustee, requesting a meeting to discuss their concerns (see May 9, 2019 email, ROC2819).</p>
2821	Phone Call	May 29, 2019	Landowner CanACRE	<p>1) Discussed the Estate Trustees' concerns about proximity of the line to the residence, and potential effect of construction on his ability to sell the property. Agreed to discuss further once the Temporary Workspace Lease Agreement has been prepared.</p>

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2526	Email	May 31, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Hydro One Networks Inc. Landowner OEB Imperial	1) The OEB distributed Procedural Order No. 1 to Imperial and the intervenors. The order provided information on the timelines associated with the hearing. 2) Timeline is as follows: (a) information requests from the OEB and intervenors submitted by June 14, 2019; (b) Imperial responses to information requests by July 2, 2019; (c) written submissions from the OEB and intervenors by July 12, 2019; (d) written reply from Imperial by July 22, 2019. 3) Attachment to email: Procedural Order No. 1.
2822	Meeting	June 3, 2019	Landowner CanACRE	1) CanACRE and the Estate Trustee viewed the potentially affected property. The Estate Trustee felt that the changes required for construction would affect the value of the property, which he will be selling in the near future. The Estate suggested that Imperial purchase their parcel. He also felt that more should have been done to notify adjacent landowners. 2) CanACRE will contact the Estate Trustee once the Temporary Workspace Lease Agreement has been prepared. 3) Concerns: (a) effect of construction on property value in the short term.
2623	Letter *	June 5, 2019	OEB Landowner	1) Information request to the OEB. 2) The Estate Trustees' requested information from Imperial relating to: (a) definition of terms; (b) justification for using the property and specific area to be used; (c) nature of activities to be undertaken; (d) hours of work; (e) mitigation measures.
2824	Phone Call	June 5, 2019	Landowner CanACRE	1) Discussed the Estate Trustees' concern regarding project effect on the selling price for the property in the short term. The Estate Trustee will put his concerns in an email, and a meeting will be arranged to discuss once answers are available from Imperial.

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2940	Email	June 10, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. Region of Peel Landowner OEB Imperial	1) The OEB provided the intervenors with a copy of Procedural Order No. 2, which provided an updated timeline for the hearing process. 2) Attachment to email: Procedural Order No. 2.
3057	Email	June 27, 2019	Bell Mobility Inc. Canadian Manufacturers & Exporters City of Hamilton City of Mississauga City of Toronto Enbridge Gas Inc. GTAA Halton Region Hydro One Networks Inc. OKT Law (HWN) Region of Peel Landowner OEB Imperial Universal Pegasus International	1) The OEB provided the intervenors with a copy of their response to HWN's June 25, 2019 request for intervenor status (see June 26, 2019 email, ROC3046), noting that Imperial did not object to HWN's request. Although the request was received after the deadline, the OEB is satisfied that HWN has a "substantial interest" in the proceeding and has accepted HWN as an intervenor. 2) Attachment to email: OEB response to HWN request for intervenor status.
Members of the Public				

* Supporting documents provided

ROC #	Event Type *	Date	Participating Organizations	Summary
2124	Email *	February 4, 2019	Individual 1 Imperial	1) Imperial responded to questions sent by the individual on January 4, 2019. Responses related to: (a) Leave to Construct Application; (b) integrity; (c) monitoring and maintenance; (d) the Humber River location near Albion Road; (e) the ESA; (f) a Contaminated Material Management and Handling Plan; (g) horizontal directional drilling.
2384	Email *	April 24, 2019	Individual 1 Imperial	1) Imperial provided the individual with a copy of the Notice of Hearing issued by the OEB for the Leave to Construct Application filing, and information about the Project, where to obtain a hard copy of the Notice if needed and how to become an intervenor. 2) Attachment to email: OEB Notice of Hearing.
2512	Email	May 2, 2019	Individual 1 National Public Relations	1) The individual requested that National resend the Notice of Hearing email (see April 24, 2019 email, ROC2384). 2) Imperial resent the notice on May 3, 2019.
2513	Email	May 3, 2019	Individual 1 Imperial National Public Relations	1) National provided a link to key documents related to the Leave to Construct Application.
2542	Email *	May 10, 2019	Individual 1 National Public Relations	1) The individual noted they support the Leave to Construct Application and inquired about additional project information relating to operations, pipeline conditions and project improvements.
2556	Email	May 10, 2019	Individual 1 National Public Relations	1) National noted that a project expert will provide answers to the individual's questions (see May 10, 2019 email, ROC2542).
3051	Email *	June 26, 2019	Individual 1 National Public Relations	1) National provided general project information (see May 10, 2019 email, ROC2556). The individual asked National to suggest a meeting date to discuss the Project.
3067	Email	June 28, 2019	Individual 1 National Public Relations	1) National noted that they will respond to the meeting request from the individual (see June 26, 2019 email, ROC3051).
2522	Email *	May 3, 2019	Individual 2 Imperial	1) The individual requested, and Imperial provided, an overview of the Project. Imperial provided a link to the website for further information.

* Supporting documents provided

List of Acronyms

CVCA	Credit Valley Conservation Authority
MENDM	Ontario Ministry of Energy, Northern Development and Mines
GTAA	Greater Toronto Airport Authority
HCCC	Haudenosaunee Confederacy of Chiefs Council
HDI	Haudenosaunee Development Institute
Imperial	Imperial Oil Limited
OMAFRA	Ontario Ministry of Agriculture, Food and Rural Affairs
MCFN	Mississaugas of the Credit First Nation
MECP	Ontario Ministry of Environment, Conservation and Parks
MMAH	Ontario Ministry of Municipal Affairs and Housing
MNRF	Ontario Ministry of Natural Resources and Forestry
MTCS	Ontario Ministry of Tourism, Culture and Sport
OEB	Ontario Energy Board
Past Recovery	Past Recovery Archaeological Services Inc.
TRCA	Toronto and Region Conservation Authority
TSSA	Technical Standards and Safety Authority

Appendix 11B – Part 1

Supporting Documents for Indigenous Groups

(documents are organized chronologically for each Indigenous Group)(

Haudenosaune Confederacy of Chiefs Council (HCCC) /

Haudenosaunee Development Institute (HDI)

From: [Williams, Kelly /C](#)
To: imperial-isometrix@national.ca
Subject: FW: DRAFT-Environmental Report-Waterdown-Finch Project-Imperial Oil Ltd
Date: Monday, February 11, 2019 11:50:41 AM
Attachments: [IOL_Ltr_Intent_File_20181220_FINAL_no_contact.pdf](#)

From: Williams, Kelly /C
Sent: Monday, February 11, 2019 1:50 PM
To: 'Todd Williams' <williams.todde@gmail.com>
Cc: 'Karl Hill' <karl.j.hill@gmail.com>; 'Misty Hill' <mistyhdi@gmail.com>; 'Aaron Detlor' <aarondetlor@gmail.com>; 'jocko@sixnationsns.com' <jocko@sixnationsns.com>; 'Wayne (HDI) Hill' <tworowarchaeology@gmail.com>; 'HDI Tracy' <tracevyghdi@gmail.com>; 'HDI' <hdi2@bellnet.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: RE: DRAFT-Environmental Report-Waterdown-Finch Project-Imperial Oil Ltd

Good afternoon Todd,

Early last week I sent your team a link to the draft Environmental Report for the Waterdown-Finch project. Let me know if you have any issues with accessing this file. I will be at Six Nations on Wednesday February 13, and will deliver a hard copy of the report to your office.

Imperial is prepared to offer HDI reasonable funding for costs associated with reviewing the report. The report will be part of the Leave to Construct application which is targeted for submission to the OEB the week of February 22. I have attached the letter of intent that was recently filed. You are welcomed to send your comments on the draft report to us directly. If you have any comments on the Stage 1 Archaeology Report, this report will be final shortly, so comments should be submitted as soon as possible.

As we discussed earlier this week, the team is working on plans and logistics for 2019 archeology field work. An update will be provided to you as soon as possible, so you may allocate your resources as necessary. The Credit River Valley project is also scheduled to begin shortly, and I will let you know as soon as I have confirmation of a start date.

<https://imperialoil.ca/en-ca/company/operations/other-operations/credit-river-valley-project>

While the larger framework for engagement between Imperial and the HCCC is being established, we wish to continue the valued participation of HDI monitors in the field by providing this update. If you have any questions, let me know.

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: July 9, 2019 12:10 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Imperial - Archaeological Finds Near Dig 93
Attachments: Dig 93 - Original Workspace with ERM Finds.pdf; Dig 93 - Revised Workspace with ERM Finds.pdf

From: Hellinga, Nathan [<mailto:nathan.hellinga@woodplc.com>]
Sent: Tuesday, February 19, 2019 11:38 AM
To: Todd Williams <williams.todde@gmail.com>; Wayne (HDI) Hill <tworowarchaeology@gmail.com>
Cc: Williams, Kelly /C <kelly.williams@esso.ca>; Austin, Shaun <shaun.austin@woodplc.com>; Slim, Barbara <barbara.slim@woodplc.com>
Subject: Imperial - Archaeological Finds Near Dig 93

Todd and Wayne,

During the Stage 2 Archaeological Assessment work for the Waterdown to Finch Project the archaeology team (through ERM / Past Recovery) recovered a fragment of a chert biface (WPT158, located closest to the Dig 93 work area) and two body sherds of pre-Contact pottery (WPT156 and 157) at the northeastern edge of the field during pedestrian survey.

Prior to the archaeology fieldwork done for the Waterdown to Finch Project, Wood performed a Stage 1 & 2 assessment of the Dig 93 work area in order to advance the Integrity Dig Program. The original area that Wood assessed is shown in the attached pdf "Dig 93 – Original Workspace with ERM Finds". During Wood's assessment there were no finds and Wood prepared and submitted their Stage 1 & 2 report to the Ministry of Tourism Culture and Sport (MTCS) and recommended no further assessment or monitoring would be required. The report was accepted by the Ministry.

Since the Stage 2 for the Waterdown to Finch later uncovered artifacts in close proximity to our work site, we are now investigating options to mitigate potential impacts during the integrity dig. Our suggestion is that the work area for the integrity dig be reduced in size to remain outside of the typical 20 m protective buffer zone, and to have monitors on-site for work within the 50 m monitoring zone. Attached is a pdf showing the revised work space which was modified to respect the 20 m protective buffer zone.

Would the Haudenosaunee Development Institute support this approach?

Respectfully,

Nathan Hellinga, B.Sc., CAN-CISEC, CPESC
Project Manager; Habitat Restoration Specialist
Direct: +1 (519) 650-7146
Mobile: +1 (647) 294-8986
www.woodplc.com

wood.

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: July 9, 2019 12:10 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Imperial NPS 12 Dig 93
Attachments: 110903141_r0_sppl_nps12_watfin_dig93_3040_2018.pdf; Dig 93 - Revised Workspace with ERM Finds.pdf

From: Hellinga, Nathan [mailto:nathan.hellinga@woodplc.com]
Sent: Thursday, February 21, 2019 4:39 PM
To: Todd Williams <williams.todde@gmail.com>; Wayne (HDI) Hill <tworowarchaeology@gmail.com>
Cc: Flinkman, Kevin D <kevin.d.flinkman@esso.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Austin, Shaun <shaun.austin@woodplc.com>; Howell, Cara <cara.howell@woodplc.com>
Subject: Imperial NPS 12 Dig 93

Todd,

As discussed, it is fine if HDI wishes to go out and take a look at the site, unfortunately I don't have someone available to meet you there. I've checked with Imperial's lands departments and they've okayed it as well.

The Dig 93 site is located across the road from:
502 Concession 5 Road East
Waterdown, Ontario, L8B 0W8

Attached is the figure that was previously sent, as well as the survey drawings for the site. Please note that the survey drawings have not yet been updated to show the proposed reduction to the work space.

If you have any questions while you're out there please call my cell at 647-294-8986.

Respectfully,

Nathan Hellinga, B.Sc., CAN-CISEC, CPESC
Project Manager; Habitat Restoration Specialist
Direct: +1 (519) 650-7146
Mobile: +1 (647) 294-8986
www.woodplc.com

The logo for Wood, featuring the word "wood." in a bold, lowercase, sans-serif font. The period is a solid black dot.

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: April 22, 2019 8:37 AM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Imperial NPS 12 Dig 93

To: Todd Williams [mailto:williams.todde@gmail.com]
From: Hellinga, Nathan <nathan.hellinga@woodplc.com>
Cc: Wayne (HDI) Hill <tworowarchaeology@gmail.com>; kevin.d.flinkman@esso.ca; kelly.williams@esso.ca; Austin, Shaun <shaun.austin@woodplc.com>; Howell, Cara <cara.howell@woodplc.com>
Subject: Re: Imperial NPS 12 Dig 93

On Thu, Feb 21, 2019 at 4:39 PM Hellinga, Nathan <nathan.hellinga@woodplc.com> wrote:

Todd,

As discussed, it is fine if HDI wishes to go out and take a look at the site, unfortunately I don't have someone available to meet you there. I've checked with Imperial's lands departments and they've okayed it as well.

The Dig 93 site is located across the road from:

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Waterdown, Ontario, L8B 0W8

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If you have any questions while you're out there please call my cell at 647-294-8986.

Respectfully,

Nathan Hellinga, B.Sc., CAN-CISEC, CPESC

Project Manager; Habitat Restoration Specialist
Direct: +1 (519) 650-7146

Mobile: +1 (647) 294-8986
www.woodplc.com

The logo for Wood PLC, featuring the word "wood." in a bold, lowercase, sans-serif font. The period is a small dot.

From: [Williams, Kelly /C](mailto:Williams_Kelly/C)
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Imperial NPS 12 Dig 93
Date: Monday, April 22, 2019 8:36:59 AM
Attachments: [image001.png](#)

From: Wayne Hill [<mailto:tworowarchaeology@gmail.com>]
Sent: Tuesday, February 26, 2019 3:37 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>; Flinkman, Kevin D <kevin.d.flinkman@esso.ca>; Brooks, Meagan (MTCS) <Meagan.Brooks@ontario.ca>
Cc: Todd Williams <williams.todde@gmail.com>; Aaron Detlor <aarondetlor@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Zulma.DeBonis@oeb.ca
Subject: Re: Imperial NPS 12 Dig 93

Good afternoon Kelly,

How are you?

Thank you for supplying the stage 2 archaeological report and mapping conducted by WOOD for Dig 93. A few concerning questions arise about areas for Integrity Dig 93 and the Waterdown to Finch project. Can IOL provide the stage 1 MTCS 1km database mapping for registered archaeological sites as indicated in the report? The HDI does not have this info and cannot finalize completion of our review. Also can IOL clarify the distinction and difference between what I presume is a typical MTCS stage 1 assessment versus a high level stage 1 archaeological assessment and why is there 2 arch consultant's involvement and citing for reporting. The HDI will require this high level stage 1 report as this is our first time hearing of it. This is considered not a good faith type of engagement withholding of pivotal information. Also an explanation as to why the HDI were not invited or included for WOOD's assessment we cannot authenticate the legitimacy of this report.

As you should know "Past Archaeological Recovery Inc." also conducted a stage 2 assessment in this exact same area of Integrity dig 93 for the IOL Waterdown to Finch project. Identified was an ancestral Haudenosaunee heritage but upon HDI's review no mention for this is indicated whatsoever. A detailed explanation will be required and the MTCS should be notified as they should not have provided a clearance letter for this dig. Wood's stage 2 report is a falsification and fabrication that doesn't include all relevant facts for the area of Integrity Dig 93.

The proposed work cannot proceed at this time and furthermore the HDI would like discuss the details Past Recovery ERM Waterdown to Finch project and the stage 2 assessment methodology used.

Look forward to hearing back and discussing this matter further.

Wayne

On Fri, Feb 22, 2019 at 3:52 PM Hellinga, Nathan <nathan.hellinga@woodplc.com> wrote:

McArthur, Cheryl

From: Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Sent: July 25, 2019 2:06 PM
To: McArthur, Cheryl
Subject: FW: Imperial NPS 12 Dig 93
Attachments: Sites near Dig 93.pdf

From: Williams, Kelly /C
Sent: Friday, March 8, 2019 2:07 PM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>; Flinkman, Kevin D <kevin.d.flinkman@esso.ca>; Brooks, Meagan (MTCS) <Meagan.Brooks@ontario.ca>
Cc: Todd Williams <williams.todde@gmail.com>; Aaron Detlor <aarondetlor@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Zulma.DeBonis@oeb.ca; Daniel Walker <Daniel.Walker@erm.com>; Jenna Down <Jenna.Down@erm.com>; Brenda Kennett <b.kennett@pastrecovery.com>
Subject: RE: Imperial NPS 12 Dig 93

Hi Wayne,

I am writing to follow up on the email you sent on February 26th regarding the Wood archaeology reports for Integrity Dig 93 and Stage 1 report and fieldwork by ERM/Past Recovery for the Waterdown-Finch pipeline replacement project. Below please find Imperial's responses to the questions and requests in your email.

1. Can IOL provide the stage 1 MTCS 1km database mapping for registered archaeological sites as indicated in the report?

As requested you will find an attached a copy of the mapping for your reference. A search of the MTCS database did not return any registered archaeological sites within 1km of Dig 93.

2. Can IOL clarify the distinction and difference between a typical MTCS stage 1 assessment versus a high level stage 1 archaeological assessment and why there are two consultants' involvement and citing for reporting?

The integrity team has been working the Waterdown-Finch team and sharing information. The following provides background to clarify the sequence of assessment work and the role of the archaeological consultants.

- Imperial engaged Environmental Resources Management (ERM) and Past Recovery Archaeological Services Inc. (Past Recovery) to perform a Stage 1 assessment of the entire corridor for the Sarnia Products Pipeline (SPPL) Nominal Pipe Size 12" (NPS 12) Waterdown to Finch (WatFin) pipeline. The outcomes of this assessment were documented in the report: *Stage 1 Archaeological Assessment for the Proposed Waterdown to Finch Project, Various Lots and Concessions, Geographic Townships of East Flamborough, Nelson, Trafalgar, Toronto, Etobicoke & York, Now City of Hamilton, City of Burlington, Town of Milton, Town of Oakville, City of Mississauga and City of Toronto, Ontario*. This report is the "high level Stage 1" referenced in Wood's report and which Imperial provided to the HDI on October 16, 2018. It is common practice for a proponent to have a high level Stage 1 assessment done for a very large project area in order to outline major areas of perceived

archaeological potential, before detailed Stage 1 Assessments are completed for the constituent properties.

- In July 2018, Imperial engaged Wood to conduct Stage 1 and 2 Archaeological Assessments at 14 planned integrity digs for the SPPL NPS 12 WatFin pipeline. On October 16, 2018, Wood performed a pedestrian survey of the Dig 93 study area that consisted of the access route and temporary work space as delineated on the Dig 93 survey drawings. Wood's pedestrian survey did not encounter any archaeological materials. Based on this field work (completed on October 16, 2018) and background research (completed on August 28, 2018), Wood prepared and submitted a Stage 1 and 2 report for the Dig 93 site on November 1, 2018. This report was shared with HDI on February 22, 2019.
- Concurrently with Wood's Integrity Dig Program work, Imperial engaged ERM and Past Recovery to conduct a Stage 2 Archaeology Assessment on the entire corridor for the SPPL NPS 12 WatFin pipeline. Past Recovery performed their Stage 2 assessment of the corridor in the area of the Dig 93 site subsequent to Wood's October 2018 pedestrian survey; Past Recovery's assessment included areas beyond Wood's study area for Dig 93. After Wood submitted the Dig 93 report, ERM discovered the artifacts outside of the Dig 93 study area. Past Recovery's report will discuss and address these findings; however, this report covers the entire corridor for which field work is not yet complete and thus the report is not yet complete and it has not been submitted to MTCS.

3. An explanation as to why the HDI were not invited or included for Wood's assessment.

An HDI monitor did not participate in Dig 93 archaeology because it was conducted in advance of conversations between HDI staff and the Imperial project team. As soon as it was feasible, HDI monitors have been invited to be present for project and integrity program field work.

4. Explanation as to absence of reference to the find by Past Recovery in the Dig 93 report.

As detailed above in the response to Item 2, the field work that resulted in the discovery adjacent to the Dig 93 study area occurred after Wood completed and submitted the Dig 93 report. Since the discovery was made outside Wood's study area, Wood cannot amend their report until the licensee responsible for the find submits their report to MTCS.

The Wat-Fin project archaeology program covered a wider area than the Integrity Program archaeology (Dig 93). ERM/Past Recovery reports that they did not find any artifacts in the area tested by Wood. Once the Integrity program learned of the find, they adjusted their temporary work space to be accountable to the no-go zone.

A Stage 3 assessment will be conducted at the site this spring with all First Nation monitors who wish to be present and observe.

5. HDI would like to discuss the detail of the Past Recovery/ERM Waterdown to Finch Project and the Stage 2 assessment methodology used.

A link with the draft Stage 1 Archaeology report was sent to HDI by Jennifer Liddell in October of 2018. The final report will be published and delivered to your office later this month. If you want a hard copy of the Stage 1 draft, please let me know and I can have it delivered to your office next week.

Detailed information on the WatFin Project Spring Archaeology program methodology and schedule will be provided to you next week. This will allow an opportunity for you to review and provide your comments on the program. Imperial is committed to engaging and addressing the concerns of all First Nation groups involved in field work.

If your concerns have not been adequately addressed, please email or contact me at 519-328-8681 for further discussion.

Respectfully,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: Wayne Hill [<mailto:tworowarchaeology@gmail.com>]

Sent: Tuesday, February 26, 2019 3:37 PM

To: Williams, Kelly /C <kelly.williams@esso.ca>; Flinkman, Kevin D <kevin.d.flinkman@esso.ca>; Brooks, Meagan (MTCS) <Meagan.Brooks@ontario.ca>

Cc: Todd Williams <williams.todde@gmail.com>; Aaron Detlor <aarondetlor@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Zulma.DeBonis@oeb.ca

Subject: Re: Imperial NPS 12 Dig 93

Good afternoon Kelly,

How are you?

Thank you for supplying the stage 2 archaeological report and mapping conducted by WOOD for Dig 93. A few concerning questions arise about areas for Integrity Dig 93 and the Waterdown to Finch project. Can IOL provide the stage 1 MTCS 1km database mapping for registered archaeological sites as indicated in the report? The HDI does not have this info and cannot finalize completion of our review. Also can IOL clarify the distinction and difference between what I presume is a typical MTCS stage 1 assessment versus a high level stage 1 archaeological assessment and why is there 2 arch consultant's involvement and citing for reporting. The HDI will require this high level stage 1 report as this is our first time hearing of it. This is considered not a good faith type of engagement withholding of pivotal information. Also an explanation as to why the HDI were not invited or included for WOOD's assessment we cannot authenticate the legitimacy of this report.

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The proposed work cannot proceed at this time and furthermore the HDI would like discuss the details Past Recovery ERM Waterdown to Finch project and the stage 2 assessment methodology used.

Look forward to hearing back and discussing this matter further.

Wayne

On Fri, Feb 22, 2019 at 3:52 PM Hellinga, Nathan <nathan.hellinga@woodplc.com> wrote:

Todd,

Jason Seguin will be forwarding the reports to yourself and Wayne. Since the files are large he will be sending a link to access them through our file transfer service.

Regards,

Nathan Hellinga

Mobile: +1 (647) 294-8986

From: Todd Williams [mailto:williams.todde@gmail.com]

Sent: February-22-19 2:32 PM

To: Hellinga, Nathan <nathan.hellinga@woodplc.com>

Cc: Wayne (HDI) Hill <tworowarchaeology@gmail.com>; kevin.d.flinkman@esso.ca; kelly.williams@esso.ca; Austin, Shaun <shaun.austin@woodplc.com>; Howell, Cara <cara.howell@woodplc.com>

Subject: Re: Imperial NPS 12 Dig 93

Thanks Nathan,

Can you also provide the Stage 1 and 2 report for this site

Thanks Todd

On Thu, Feb 21, 2019 at 4:39 PM Hellinga, Nathan <nathan.hellinga@woodplc.com> wrote:

Todd,

As discussed, it is fine if HDI wishes to go out and take a look at the site, unfortunately I don't have someone available to meet you there. I've checked with Imperial's lands departments and they've okayed it as well.

The Dig 93 site is located across the road from:

502 Concession 5 Road East

Waterdown, Ontario, L8B 0W8

Attached is the figure that was previously sent, as well as the survey drawings for the site. Please note that the survey drawings have not yet been updated to show the proposed reduction to the work space.

If you have any questions while you're out there please call my cell at 647-294-8986.

Respectfully,

Nathan Hellinga, B.Sc., CAN-CISEC, CPESC

Project Manager; Habitat Restoration Specialist
Direct: +1 (519) 650-7146

Mobile: +1 (647) 294-8986
www.woodplc.com

wood.

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Stage 1 Archaeology Update-Waterdown-Finch-Imperial Oil Ltd
Date: Monday, April 22, 2019 8:47:02 AM

From: Williams, Kelly /C

Sent: Tuesday, April 16, 2019 4:01 PM

To: Wayne (HDI) Hill <tworowarchaeology@gmail.com>; Todd Williams <williams.todde@gmail.com>

Cc: HDI Tracy <traceyghdi@gmail.com>; HDI <hdi2@bellnet.ca>; Karl Hill <karl.j.hill@gmail.com>

Subject: Stage 1 Archaeology Update-Waterdown-Finch-Imperial Oil Ltd

Hello Wayne and Todd,

The Stage 1 Archaeology report for the Waterdown-Finch Project was sent to HCCC in care of HDI last fall for review and comment. Since that time, there have been revisions to the report to address minor changes in the project footprint. Imperial will be delivering it to the MCTS in the next few weeks. However, before this submission, Imperial is providing you with the draft report, maps and a memo summarizing the revisions made since your initial review. Review of project reports does require an allocation of your department resources. Imperial is prepared to provide reasonable funding for your department to do this work if you wish.

The link below will provide you with the following information.

- Revised Stage 1 report
- Memo summarizing the changes made to the Stage 1 report since the last version was reviewed
- Stage 1 archaeological assessment redacted maps

URL: <https://onyx.erm.com>

Username: 0460600

Password: 4KQ6Q2Nh

(Password is case-sensitive)

Let me know if you are unable to access these files. If you have any questions or comments on the revisions, please contact me at your earliest convenience.

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Formal Notice-LTC Submission-Waterdown to Finch-IOL
Date: Thursday, April 25, 2019 2:50:29 PM
Attachments: [Notice_IOL_201904101.pdf](#)

From: Williams, Kelly /C
Sent: Thursday, April 25, 2019 9:40 AM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>; Todd Williams <williams.todde@gmail.com>
Cc: 'HDI Tracy' <traceyghdi@gmail.com>; 'HDI' <hdi2@bellnet.ca>; 'Karl Hill' <karl.j.hill@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: Formal Notice-LTC Submission-Waterdown to Finch-IOL

Dear Wayne and Todd,
 Please find enclosed a Notice of Hearing issued by the Ontario Energy Board (OEB) to consider Imperial's Leave to Construct application filing for the Waterdown to Finch Project. On February 25, 2019, the Project submitted a Leave to Construct application to the OEB, the province's energy regulator, who is responsible for ensuring compliance with the province's environmental guidelines for the location, construction and operation of hydrocarbon pipelines and facilities in Ontario. Imperial's application reflects the robust environmental planning, stakeholder engagement, cultural, social and heritage assessment process that has taken place since the Project launched in May 2018. The Project will replace a 63-kilometre segment of the Sarnia Products Pipeline between Waterdown and North York. Operating safely in the region for many years, this pipeline provides refined products used by businesses and households across the Greater Toronto and Hamilton Area, including a significant portion of jet fuel at Toronto Pearson International Airport. Subject to provincial regulatory review and receipt of all permits, Imperial expects to start construction on the replacement project by the end of 2019.

Imperial is committed to providing timely and accessible information about the Project and its regulatory review. In accordance with OEB requirements, the Waterdown to Finch Project application and evidence for the Leave to Construct and the Environmental Report will be available for download from Imperial's project website at imperialoil.ca/waterdowntofinch as well as on the OEB's regulatory applications page at oeb.ca/industry/applications-oeb.

For more information regarding Imperial's Project application, the public hearing process and how to file a letter or become an intervenor, interested parties may also reference the file number **EB-2019-0007** on the OEB website: www.oeb.ca/participate. A hard copy of the application will be available for review at Imperial's head office in Calgary, Alberta as well as its Finch Terminal in North York, Ontario.

Calgary Office Imperial Oil Limited 505 Quarry Park Blvd Calgary, Alberta T2C 5N1	Finch Terminal Imperial Oil Limited 1150 Finch Ave W North York, Ontario M3J 2E4
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Please forward this information to the Haudenosaunee Confederacy Chiefs Council and I will deliver a hardcopy of the application to your office. Should you have any questions about the Project, please do not hesitate to contact me.

Sincerely,

Kelly
Kelly Williams
Community Relations Officer
Imperial's Sarnia Products Pipeline, Waterdown to Finch Project
602 Christina Street
Sarnia ON N7T 7M5
Cell 519 328 7405
imperialoil.ca Twitter YouTube

McArthur, Cheryl

From: Jenna Down <Jenna.Down@erm.com>
Sent: May 2, 2019 7:31 AM
To: Curtis Campbell; Majdalani, Elias; Matthew Scoular; Mark Welsh; Daniel Walker; Malone, Jessie M
Cc: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown to Finch Imperial Oil MTCS

Hi all, here is the email Wayne sent to MTCS.

Note, PR isn't copied on this, or the second email Wayne sent.

Jenna

From: Wayne Hill <tworowarchaeology@gmail.com>
Sent: Wednesday, May 1, 2019 8:12 PM
To: Jenna Down <Jenna.Down@erm.com>; Williams, Andrea (MTCS) <Andrea.Williams@ontario.ca>; <Katherine.Cappella@ontario.ca> <Katherine.Cappella@ontario.ca>
Cc: Williams, Kelly /C <kelly.williams@esso.ca>; Malone, Jessie M <Jessie.m.malone@esso.ca>; Todd Williams <williams.todde@gmail.com>
Subject: Waterdown to Finch Imperial Oil MTCS

Good Afternoon Jenna and Andrea,

My name is Wayne Hill I am the archaeological program manager for the Haudenosaunee Development Institute,

A few items leading to strained and increased concerns for the application and use of MTCS stage 2 Test Pitting section 2.1.2 standard 10m corridors and subsection 2 and 3 in applying appropriate spacial surface coverage of test pits that adequately assesses areas of the 62km project footprint. The 10m corridor standard has been exceeded numerous times in which 5m test pit survey areas assessed were as wide as 20, 30 and 60m, easily exceeding the corridor standard. Agricultural ploughed fields have been stage 2 test pitted, even though pedestrian survey was strongly suggested as per stage 2 guidelines by the HDI archaeological monitoring staff. The stage 2 test pits are limited by Imperial Oil's exact specific 5m grid which doesn't permit focusing and adding additional test pits for higher potential areas hindering the purpose of this process.

Its imperative the MTCS ensures strict adherence in appropriate applicable S&G's providing direction and clear consistency that's in line with other previous pipeline projects Trans-Northern, Enbridge Line 10, GTA and Union Gas/Enbridge Burlington to Oakville which we have precedence established.

I look forward to future discussions for this projects.

Thanks Wayne,

Wayne Hill
Archaeological Program Manager
Haudenosaunee Development Institute
Sunrise Ct. Sunrise Ohsweken
N0A1M0 cell 2263887135

From: [Murillo, Breanna K /C](mailto:Murillo.Breanna.K/C)
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown to Finch Imperial Oil MTCS
Date: Thursday, July 4, 2019 11:27:48 AM

From: Williams, Andrea (MTCS) <Andrea.Williams@ontario.ca>
Sent: Friday, May 3, 2019 3:58 PM
To: Wayne Hill <tworowarchaeology@gmail.com>; Jenna Down <Jenna.Down@erm.com>; Cappella, Katherine (MTCS) <Katherine.Cappella@ontario.ca>
Cc: Williams, Kelly /C <kelly.williams@esso.ca>; Malone, Jessie M <Jessie.m.malone@esso.ca>; Todd Williams <williams.todde@gmail.com>
Subject: RE: Waterdown to Finch Imperial Oil MTCS

Good afternoon, Wayne:

Thanks for getting in touch about your concerns regarding test pit/pedestrian survey strategies within the pipeline corridor.

MTCS wishes to ensure that the most effective survey strategies are employed within the Imperial Oil Waterdown to Finch corridor.

The Standards and Guidelines test pitting option for corridors 10m wide or less (S&Gs 2.1.2 Standard 1f) can be considered if the lands would ordinarily be subject to pedestrian survey, i.e. actively or recently cultivated land. Regardless of the width of the corridor, if the terrain is non-agricultural, wooded, overgrown with heavy brush, inaccessible to plough or another condition listed in S&Gs 2.1.2 Standard 1a-e, test pit survey is acceptable: MTSC doesn't place an additional expectation to plough wider corridors. The field conditions must be clearly documented as meeting the standards.

Any proposed strategy involving substitution of pedestrian survey with test pitting within agricultural lands would require a fulsome documentation of any limiting factors, confirmation of the applicable health and safety regulations as well as detailed mapping for each area. If there is concern raised about the survey strategy when MTCS staff review assessment reports, the licensee may be asked to return to the field to conduct additional survey work, which could affect project timelines. It is in the interest of the licensee and their client to adhere to the S&Gs and to clearly document the conditions and all decisions regarding the selection of survey methods, including input from monitoring staff.

As always, please feel free to get in touch with additional questions or concerns. Thank you.
-Andrea

Andrea Williams
Archaeology Review Officer
Archaeology Program Unit
Ministry of Tourism, Culture and Sport
401 Bay Street, Suite 1700

Imperial Oil Limited has applied to the Ontario Energy Board for approval to construct 63 kilometres of pipeline and associated infrastructure to transport refined oil products from its facility in the City of Hamilton to its facility in the City of Toronto.

Learn more. Have your say.

If approved, the proposed pipeline would replace existing transportation capabilities of refined oil products (gasoline, diesel fuel and jet fuel) between Imperial Oil Limited's Waterdown Pump Station in the City of Hamilton to its Finch Terminal in North York in the City of Toronto. The pipeline and associated infrastructure are located in the City of Hamilton, the City of Burlington, the Town of Milton, the Town of Oakville, the City of Mississauga, and the City of Toronto, as shown in the map below.

Imperial Oil Limited is also asking the Ontario Energy Board to approve the form of agreement it offers to landowners to use their land for location and construction of the proposed pipeline.

on the case. We will also hear questions and arguments from individual consumers, municipalities and others whose interests would be affected. At the end of this hearing, the OEB will decide whether to approve the application.

As part of its review of this application, the OEB will assess Imperial Oil Limited's compliance with the OEB's Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario.

The OEB advises Indigenous communities that the OEB's process for this application may serve as a component of the Crown's duty to consult for this project.

The OEB is an independent and impartial public agency. We make decisions that serve the public interest. Our goal is to promote a financially viable and efficient energy sector that provides you with reliable energy services at a reasonable cost.

BE INFORMED AND HAVE YOUR SAY

You have the right to information regarding this application and to be involved in the process.

- You can review the application filed by Imperial Oil Limited on the OEB's website now.
- You can file a letter with your comments, which will be considered during the hearing.
- You can become an active participant (called an intervenor). Apply by **May 6, 2019** or the hearing will go ahead without you and you will not receive any further notice of the proceeding.
- At the end of the process, you can review the OEB's decision and its reasons on our website.

LEARN MORE

Our file number for this case is **EB-2019-0007**. To learn more about this hearing, find instructions on how to file letters or become an intervenor, or to access any document related to this case, please enter the file number **EB-2019-0007** from the list on the OEB website: <http://www.oeb.ca/noticeltc>. You can also phone our Consumer Relations Centre at 1-877-632-2727 with any questions.

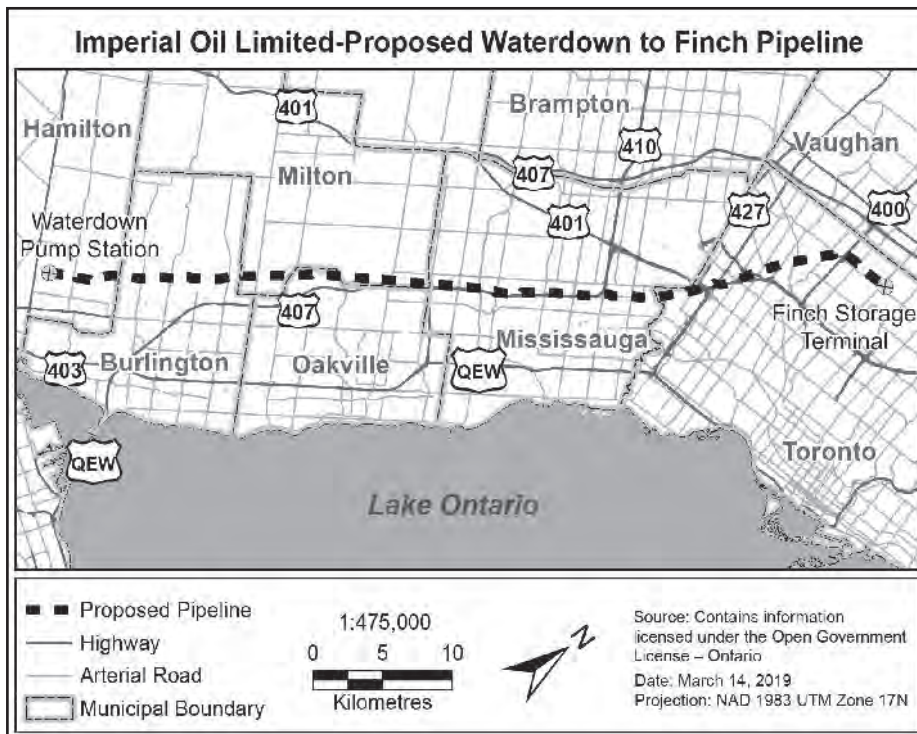
ORAL VS. WRITTEN HEARINGS

There are two types of OEB hearings – oral and written. The OEB intends to proceed with this application by way of a written hearing. If you think an oral hearing is needed, you can write to the OEB to explain why by **May 6, 2019**.

PRIVACY

If you write a letter of comment, your name and the content of your letter will be put on the public record and the OEB website. However, your personal telephone number, home address and email address will be removed. If you are a business, all your information will remain public. If you apply to become an intervenor, all information will be public.

This hearing will be held under sections 90(1) and 97 of the Ontario Energy Board Act, 1998, S.O. 1998, c.15 (Schedule B).



THE ONTARIO ENERGY BOARD IS HOLDING A PUBLIC HEARING

The Ontario Energy Board (OEB) will hold a public hearing to consider the application filed by Imperial Oil Limited. During the hearing, we will question Imperial Oil Limited



Ontario

Ontario Energy Board / Commission de l'énergie de l'Ontario

From: [Jenna Down](#)
To: [Wayne Hill](#)
Cc: [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Joanne Thomas](#); [Joelle Williams](#); [Williams, Kelly /C](#); [Maxime Picard](#); [Megan DeVries](#); [Todd Williams](#); [b.kennett@pastrecovery.com](#); [Caitlyn Howard](#); [Gemma Galgie](#); [Jessalyn Miller](#); [Lisa Merritt](#); [Malone, Jessie M](#); [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#); [Cortney Blackburn](#); [Majdalani, Elias](#); [Williams, Andrea \(MTCS\)](#); [<Katherine.Cappella@ontario.ca>](#)
Subject: RE: Next Schedule Block - Crew Planner
Date: Tuesday, May 7, 2019 8:21:29 AM

Hi Wayne,

To address the concerns in your email below, as well as the previous email sent to MTCS, please find Andrea Williams response copied here. I trust her comments address your concern.

"MTCS wishes to ensure that the most effective survey strategies are employed within the Imperial Oil Waterdown to Finch corridor.

The Standards and Guidelines test pitting option for corridors 10m wide or less (S&Gs 2.1.2 Standard 1f) can be considered if the lands would ordinarily be subject to pedestrian survey, i.e. actively or recently cultivated land. Regardless of the width of the corridor, if the terrain is non-agricultural, wooded, overgrown with heavy brush, inaccessible to plough or another condition listed in S&Gs 2.1.2 Standard 1a-e, test pit survey is acceptable: MTSC doesn't place an additional expectation to plough wider corridors. The field conditions must be clearly documented as meeting the standards.

Any proposed strategy involving substitution of pedestrian survey with test pitting within agricultural lands would require a fulsome documentation of any limiting factors, confirmation of the applicable health and safety regulations as well as detailed mapping for each area. If there is concern raised about the survey strategy when MTCS staff review assessment reports, the licensee may be asked to return to the field to conduct additional survey work, which could affect project timelines. It is in the interest of the licensee and their client to adhere to the S&Gs and to clearly document the conditions and all decisions regarding the selection of survey methods, including input from monitoring staff."

I hope this will clarify MTCS's expectations regarding survey methodology. Feel free to contact me if there are additional questions or concerns. Due to current staffing limitations, I may not be able to reply to inquiries immediately: thank you for your patience.

-Andrea"

Also, as you note, we will be continuing with a smaller crew as we anticipate ground conditions to improve with the warmer weather.

Regards,

Jenna

From: Wayne Hill <tworowarchaeology@gmail.com>

From: [Jenna Down](#)
To: [Wayne Hill](#)
Subject: RE: Next Schedule Block - Crew Planner

Sarah: Please add to ROC2090

Okay thanks, I will wait to hear your response to the first email thread with MTCS

Thanks, Jenna

From: Wayne Hill <tworowarchaeology@gmail.com>
Sent: Tuesday, May 7, 2019 10:53 AM
To: Jenna Down <Jenna.Down@erm.com>
Subject: Re: Next Schedule Block - Crew Planner

That's fair. Also I am going to respond to Andrea from the MTCS as I still have outstanding questions.

Thanks Wayne,

On Tue, May 7, 2019, 10:50 AM Jenna Down, <Jenna.Down@erm.com> wrote:

Good Morning Wayne, I suggest our communications continue through Past Recovery, ERM, MTCS and Kelly only, as this will help effectively address concerns - Thoughts?

Jenna

From: Wayne Hill <tworowarchaeology@gmail.com>
Sent: Tuesday, May 7, 2019 10:25 AM
To: Jenna Down <Jenna.Down@erm.com>
Subject: Re: Next Schedule Block - Crew Planner

Good morning Jenna,

I have a planned response. Should I share through this through the email chain or the first email I sent.

Wayne

On Tue, May 7, 2019, 10:21 AM Jenna Down, <Jenna.Down@erm.com> wrote:

Hi Wayne,

To address the concerns in your email below, as well as the previous email sent to MTCS, please find Andrea Williams response copied here. I trust her comments address your concern.

"MTCS wishes to ensure that the most effective survey strategies are employed within the Imperial Oil Waterdown to Finch corridor.

From: [Jenna Down](#)
To: [Joelle Williams](#); [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Joanne Thomas](#); [Williams, Kelly /C](#); [Maxime Picard](#); [Megan DeVries](#); [Todd Williams](#); [Wayne Hill](#)
Cc: [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#)
Subject: RE: Archaeology- May 9
Date: Wednesday, May 8, 2019 8:55:46 AM
Attachments: [image001.jpg](#)
[image002.png](#)

Hi Joelle,

PR and ERM will be making a call at the end of the day in regards to fieldwork tomorrow. I appreciate your patience with unpredictable weather during springtime as well as coordinating the crews.

Regards,
Jenna

From: Joelle Williams <Joelle.Williams@mncfn.ca>
Sent: Wednesday, May 8, 2019 10:21 AM
To: Jenna Down <Jenna.Down@erm.com>; Consultation.calgary@woodplc.com; Dawn LaForme <dlaforme@sixnations.ca>; Joanne Thomas <jthomas@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Maxime Picard <maxime.picard@cnhw.qc.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>; Todd Williams <williams.todde@gmail.com>; Wayne Hill <tworowarchaeology@gmail.com>
Cc: Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>
Subject: RE: Archaeology- May 9

Good morning Jenna,

Please let me know, at your earliest convenience, if you plan to return to site tomorrow and what the crew numbers will be. The FLR on site today reported there was close to 30 people on site today.

Thank you,
Joelle

From: Jenna Down [<mailto:Jenna.Down@erm.com>]
Sent: Friday, May 3, 2019 7:03 PM
To: Consultation.calgary@woodplc.com; Dawn LaForme; Joanne Thomas; Joelle Williams; Williams, Kelly /C; Maxime Picard; Megan DeVries; Todd Williams; Wayne Hill
Cc: Curtis Campbell; Matthew Scoular; Mark Welsh; Daniel Walker
Subject: Archaeology- Wednesday May 8

Hello,

Moving forward, but keeping weather and saturation levels in mind, we would like to continue with one crew on Wednesday, May 8th. We will be replicating the crew size we had last week (20 archaeologists).

From: [Jenna Down](#)
To: [Wayne Hill](#)
Cc: [Williams, Andrea \(MTCS\)](#); <Katherine.Cappella@ontario.ca>; [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Joanne Thomas](#); [Williams, Kelly /C](#); [Maxime Picard](#); [Megan DeVries](#); [Todd Williams](#); [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#); [Joelle Williams](#); [Nicole Bishop](#)
Subject: RE: Archaeology- May 9
Date: Wednesday, May 8, 2019 4:40:13 PM
Attachments: [image001.jpg](#)
[image002.png](#)

Hi Wayne, thank you for your note - Imperial will be sending a response to your concern shortly.

Best,
Jenna

From: Wayne Hill <tworowarchaeology@gmail.com>
Sent: Wednesday, May 8, 2019 11:53 AM
To: Jenna Down <Jenna.Down@erm.com>
Cc: Williams, Andrea (MTCS) <Andrea.Williams@ontario.ca>; <Katherine.Cappella@ontario.ca>
<Katherine.Cappella@ontario.ca>; Consultation.calgary@woodplc.com; Dawn LaForme
<dlaforme@sixnations.ca>; Joanne Thomas <jthomas@sixnations.ca>; Williams, Kelly /C
<kelly.williams@esso.ca>; Maxime Picard <maxime.picard@cnhw.qc.ca>; Megan DeVries
<Megan.DeVries@mncfn.ca>; Todd Williams <williams.todde@gmail.com>; Curtis Campbell
<Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh
<Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>; Joelle Williams
<Joelle.Williams@mncfn.ca>; Nicole Bishop <Nicole.Bishop@erm.com>
Subject: Re: Archaeology- May 9

Hi Jenna,

Thank you the your response. Let me clarify, first of all that is minmally 25 field staff not 20 which was not indicated whatsoever in previous emails. Second of all do they have any type of Ontario archaeological experience, most importantly are they qualified for stage 2 test pitting methodology. This was also not indicated in emails about lack of experience. The HDI will request Ontario archaeological staff 2 years experience in stage 2 test methodology and as previously stated in other emails this is not a training exercise and our Haudenosaunee asserted 1701 Nanfan treaty lands nor our ancestors' archaeological heritage be succumb to subpar minimalist methods or tactics. The archaeology cannot proceed under conditions such as this and is outright wrong for Imperial Oil to force us into doing.

Wayne

On Wed, May 8, 2019 at 11:37 AM Jenna Down <Jenna.Down@erm.com> wrote:

Hi Wayne, thank you for your email. Please allow me to clarify.

Currently there are 17 Past Recovery archaeologists and 8 ASI archaeologists on site. We also have 2 ERM Field Directors - Chris Thorne and Tiffany McLellan. As it is Tiffany's first day she is shadowing Dan Walker to ensure she effectively trained on this very complex project. Cortney Blackburn is also on site with TGH (safety consultants) to ensure safety around locates as well as field personnel. Please note, all archaeologists on site are qualified to excavate and are either in

the process of completing a degree in Archaeology or are in possession of an Archaeology degree. As we have only been in the field for one short block of 6 days, and beginning our second block with unpredictable weather coupled with scheduling complexities, we appreciate your patience and understanding as we work hard to find the best solutions to meet the expectations of all First Nation communities, Imperial, UPI, archaeologists as well as the ERM team.

Thank you again and I hope I have resolved your concerns. Speak soon,

Jenna

From: Wayne Hill <tworowarchaeology@gmail.com>

Sent: Wednesday, May 8, 2019 10:47 AM

To: Jenna Down <Jenna.Down@erm.com>; Williams, Andrea (MTCS)

<Andrea.Williams@ontario.ca>; <Katherine.Cappella@ontario.ca>

<Katherine.Cappella@ontario.ca>

Cc: Consultation.calgary@woodplc.com; Dawn LaForme <dlaforme@sixnations.ca>; Joanne

Thomas <jthomas@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Maxime Picard

<maxime.picard@cnhw.qc.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>; Todd Williams

<williams.todde@gmail.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular

<Matthew.Scoular@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker

<Daniel.Walker@erm.com>; Joelle Williams <Joelle.Williams@mncfn.ca>

Subject: Re: Archaeology- May 9

Good morning,

The HDI has also learned there is 30 field staff on site. This was not indicated in previous emails or memos provided. I respectfully ask to cease and desist archaeological excavations and furthermore the extra people are not qualified field staff lacking archaeological field experience. This is unacceptable considering the sensitivity and importance for this project since there has already been raised questions and concerns about the efficiency of stage 2 test pitting for identifying archaeological potential.

This will not used as an archaeological training exercise especially considering there has been no engagement.

Thanks Wayne,

On Wed, May 8, 2019 at 10:20 AM Joelle Williams <Joelle.Williams@mncfn.ca> wrote:

Good morning Jenna,

Please let me know, at you earliest convenience, if you plan to return to site tomorrow and what the crew numbers will be. The FLR on site today reported their was close to 30 people on site today.

Thank you,
Joelle

From: Jenna Down [mailto:Jenna.Down@erm.com]

Sent: Friday, May 3, 2019 7:03 PM

To: Consultation.calgary@woodplc.com; Dawn LaForme; Joanne Thomas ; Joelle Williams; Williams, Kelly /C; Maxime Picard ; Megan DeVries; Todd Williams ; Wayne Hill

Cc: Curtis Campbell; Matthew Scoular; Mark Welsh; Daniel Walker

Subject: Archaeology- Wednesday May 8

Hello,

From: [Jenna Down](#)
To: [Joanne Thomas](#); Joelle.Williams@mncfn.ca; [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Williams, Kelly /C](#); maxime.picard@cnhw.qc.ca; Megan.DeVries@mncfn.ca; williams.todde@gmail.com; [Wayne Hill](#)
Cc: [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#); [Nicole Bishop](#); [Williams, Kelly /C](#); [Murillo, Breanna K /C](#)
Subject: RE: Archaeology- May 9
Date: Wednesday, May 8, 2019 4:53:43 PM
Attachments: [image001.jpg](#)
[image002.png](#)

Hi Joanne, sorry for the delay and thank you for your note.

Imperial will be sending a response to your concern shortly.

Best,
Jenna

From: Joanne Thomas <jthomas@sixnations.ca>
Sent: Wednesday, May 8, 2019 11:48 AM
To: Jenna Down <Jenna.Down@erm.com>; Joelle.Williams@mncfn.ca; Consultation.calgary@woodplc.com; Dawn LaForme <dlaforme@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; maxime.picard@cnhw.qc.ca; Megan.DeVries@mncfn.ca; williams.todde@gmail.com; Wayne Hill <tworowarchaeology@gmail.com>
Cc: Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>; tworowarchaeology@gmail.com; Williams, Kelly /C <kelly.williams@esso.ca>
Subject: RE: Archaeology- May 9

Hi jenna

My monitor has just informed me of the issue of the amount of people on site and how they are inexperienced because a show and tell session was held after the tailgate meeting.

I am concerned about the ratio of field crew to my monitor. 30 to 1 is quite a difference. New credit and the HDI have their own different process of monitoring and we do not represent each other in any way.

So in the near future I will be using this site to train my new monitors one at a time along with my experienced monitor. I will ensure they have the right online safety. This issue needs to be addressed with all.

JT

Sent with BlackBerry Work
(<https://clicktime.symantec.com/3QaWhAtZhyfiJiTJZibaTcf6H2?u=www.blackberry.com>)

From: Jenna Down <Jenna.Down@erm.com>

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Archaeology- May 9
Date: Friday, May 10, 2019 9:20:32 AM
Attachments: [image001.jpg](#)
[image002.png](#)

From: Williams, Kelly /C
Sent: Friday, May 10, 2019 11:20 AM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: Todd Williams <williams.todde@gmail.com>; 'Karl Hill' <karl.j.hill@gmail.com>; 'andrea.williams@ontario.ca' <andrea.williams@ontario.ca>; 'HDI Tracy' <traceyghdi@gmail.com>; 'HDI' <hdi2@bellnet.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Matthew Scoular <Matthew.Scoular@erm.com>; 'Mark Welsh' <Mark.Welsh@erm.com>; 'Curtis Campbell' <Curtis.Campbell@erm.com>; Daniel Walker <Daniel.Walker@erm.com>; b.kennett@pastrecovery.com; 'katherine.cappella@ontario.ca' <katherine.cappella@ontario.ca>
Subject: FW: Archaeology- May 9

Good morning Wayne,

I just wanted to send you an email and let you know that your concerns were heard. There are challenges with a program this extensive, however, transparency and a commitment to archaeology conducted with integrity should not be compromised.

The team was reminded of the importance of sending correct information regarding field crew numbers and that there has to be an acceptable level of competency among those conducting the field work. This short break was spent examining how the program can move forward productively, while being mindful and respectful of all the interests involved. Keeping this in mind, the program will resume on Monday, and Jenna will be sending out logistical information shortly.

Imperial is aware that HCCC/HDI have outstanding topics that need to be discussed. Please propose some meeting times that work for your team, and I will work on assembling the Imperial team for a mutually agreeable time. If there is an alternate HDI staff person I should work with to accomplish this task, let me know.

Call or text if you have any questions and have a great weekend!

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: Wayne Hill [<mailto:tworowarchaeology@gmail.com>]

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#); [Murillo, Breanna K /C](#)
Subject: FW: Archaeology- May 9
Date: Friday, May 10, 2019 12:43:34 PM

From: Williams, Kelly /C
Sent: Friday, May 10, 2019 2:43 PM
To: 'Misty Hill' <hdi2@bellnet.ca>
Subject: RE: Archaeology- May 9

Hi Misty-Thanks for the dates! It's good to have options. I will confirm with you early next week.
Have a great weekend! -kelly

From: Misty Hill [<mailto:hdi2@bellnet.ca>]
Sent: Friday, May 10, 2019 1:46 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Subject: Re: Archaeology- May 9

Hi Kelly

Could we please set up a meeting regarding this email.
Dates we have available are: May 27 10am or 1 pm
May 28 10 am or 1 pm
May 30 10 am or 1pm.
Look forward to hearing from you as to what dates work for you.

Thanks
Misty Hill

On May 10, 2019, at 5:19 AM, Williams, Kelly /C <kelly.williams@esso.ca> wrote:

Good morning Wayne,

I just wanted to send you an email and let you know that your concerns were heard. There are challenges with a program this extensive, however, transparency and a commitment to archaeology conducted with integrity should not be compromised.

The team was reminded of the importance of sending correct information regarding field crew numbers and that there has to be an acceptable level of competency among those conducting the field work. This short break was spent examining how the program can move forward productively, while being mindful and respectful of all the interests involved. Keeping this in mind, the program will resume on Monday, and Jenna will be sending out logistical information shortly.

Imperial is aware that HCCC/HDI have outstanding topics that need to be discussed.

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: May 15, 2019 2:00 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles - Imperial Oil Limited

From: Williams, Kelly /C
Sent: Wednesday, May 15, 2019 4:00 PM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: Todd Williams <williams.todde@gmail.com>; 'Karl Hill' <karl.j.hill@gmail.com>; 'HDI Tracy' <traceyghdi@gmail.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; b.kennett@pastrecovery.com; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles -Imperial Oil Limited

Dear Wayne,

I hope you are well and are enjoying the nicer weather.

Moving forward, Past Recovery is implementing some changes to the field crew for the Stage 2 Program and has provided the following explanation. Let me know if you have any questions. Thanks!

To date, Past Recovery and ASI archaeologists have been working together as a single crew. This single crew has allowed Past Recovery's Field Directors (and upper management) to evaluate the skills and technical expertise of ASI's Field Directors. Through assessing ASI's field Directors, Past Recovery ensures consistency in adhering to MTCS S&Gs, while including First Nation monitors and FLRs in discussions regarding appropriate fieldwork conditions, the assessment of archaeological potential, and testing methodology.

Going forward, there will be a dedicated ASI field crew, led by an ASI Field Director in addition to a dedicated Past Recovery field crew, led by a Past Recovery Field Director. The ASI field crew will work Monday to Friday and the Past Recovery field crew will work 10 on 4 off. ERM Field Leads will continue to accompany both crews. Past Recovery will maintain control over the Stage 2 archaeology program, including all supervision of the fieldwork. All ASI field staff have completed, or are in the process of completing, a degree in anthropology, archaeology or another related discipline and include two First Nation archaeologists.

Past Recovery's Field Directors will be checking in with ASI Field Directors on a regular basis and will be visiting the ASI crew often. If issues arise during fieldwork that cannot be resolved, these locations will be deferred until a Past Recovery Field Director can be present to assess the situation in person. Past Recovery's Field Directors will be reviewing all of ASI's field notes, field photographs and fieldwork mapping to ensure that these meet Past Recovery's standards for the project. Past Recovery will maintain full responsibility of the Stage 2 reporting including the analysis of artifacts and the development of recommendations. First Nation communities will continue to be involved in the development of appropriate recommendations for any sites documented during the Stage 2 fieldwork and will be provided with a draft of the Stage 2 report for review.

Kelly Williams
Community Relations Officer

From: [Murillo, Breanna K /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: ERM Field Leads-Clarification
Date: Thursday, July 4, 2019 11:25:00 AM

From: Williams, Kelly /C
Sent: Thursday, May 16, 2019 2:16 PM
To: Wayne Hill <tworowarchaeology@gmail.com>
Cc: Todd Williams <williams.todde@gmail.com>; HDI Tracy <traceyghdi@gmail.com>; Karl Hill <karl.j.hill@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Jenna Down <Jenna.Down@erm.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Daniel Walker <Daniel.Walker@erm.com>
Subject: ERM Field Leads-Clarification

Hello Wayne,

I have received clarification on your question from our phone conversation this afternoon.

ERM Field Leads will be digging and screening. Tiffany and Chris from ERM are both fully qualified at the Field Director level and have numerous years of experience to participate at this level. They are not field *directing*. They are also assisting with the coordination of the field crew, and other required personnel. Field Leads will not be influencing the Field Directors in determining archaeological potential, CHVI or make the final decisions on if conditions are appropriate.

Please continue to call, email or text any questions, I look forward to our full discussion on the Stage 2 program at the meeting on May 30 at the HDI office.

Best,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Murillo, Breanna K /C](mailto:Murillo.Breanna.K/C)
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown to Finch Imperial Oil MTCS
Date: Thursday, July 4, 2019 11:24:47 AM

On Thu, May 16, 2019 at 2:42 PM Williams, Andrea (MTCS) <Andrea.Williams@ontario.ca> wrote:

Good afternoon, Wayne. Thank you for your note about your perspectives here. The Guidelines you mentioned for test pitting (S&Gs 2.1.2, Guidelines) that set out options such as varying from the grid and clustered test pits, these are all considered good practice and can be undertaken based on the professional judgement of the licensee and the particular conditions of the area(s) being assessed. There is no hard and fast rule of when they should or could be applied.

I am wondering if there are specific sections of the corridor that you're particularly concerned about, Wayne? I had been contacted about the possibility of using alternative survey methods for parcels WTFN1615 and WTFN2014. I communicated that both need to be ploughed and pedestrian surveyed. Afterwards, I heard more about WTFN2014: apparently there are complicating factors due to the way the existing pipeline was constructed in this specific area. I have asked for detailed technical information to justify any diversion from the survey standard at WTFN2014, as MTCS review staff will do when reviewing reports that document any survey that doesn't meet the 2011 S&Gs.

With respect to your comment about ratios of test pitting survey versus pedestrian survey, based only on my report review experience, I wouldn't feel that pedestrian survey is necessarily the norm for Ontario. In urban or suburban conditions, in the immediate vicinity of buried infrastructure, or in wooded or scrub lands, test pitting is the standard method and sites are found this way. As we discussed earlier on this thread, if the area in question is an open, ploughable agricultural field then pedestrian survey is the preferred survey method, but there are circumstances where this may not be possible, and test pit survey can be used, such as that 10m narrow linear corridor situation (S&Gs Section 2.1.2 Standard 1f).

I must also mention to you and everyone copied here that I am going to be out of the office for the next week, returning on May 27th. Team Lead Kathryn Bryant will be my back-up for this project in the interim – please include her on discussions for the next week or so.

Thank you.

-Andrea

Andrea Williams

Archaeology Review Officer
Archaeology Program Unit
Ministry of Tourism, Culture and Sport
401 Bay Street, Suite 1700
Toronto, Ontario
M7A 0A7
416-314-2120

Andrea.Williams@ontario.ca

From: Wayne Hill <tworowarchaeology@gmail.com>

Sent: May 14, 2019 11:16 AM

To: Williams, Andrea (MTCS) <Andrea.Williams@ontario.ca>

Cc: Jenna Down <Jenna.Down@erm.com>; Cappella, Katherine (MTCS) <Katherine.Cappella@ontario.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Aaron Detlor <aarondetlor@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>

Subject: Re: Waterdown to Finch Imperial Oil MTCS

From: [Williams, Kelly /C](#)
To: [Curtis Campbell](#)
Cc: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: HDI Stage 2 Program Request
Date: Wednesday, May 22, 2019 1:33:01 PM

Hi Curtis-Looping you in on this. Thanks!-kelly

From: Williams, Kelly /C
Sent: Wednesday, May 22, 2019 3:31 PM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: Todd Williams <williams.todde@gmail.com>; 'Brian Doolittle' <ganowa@me.com>; 'HDI Tracy' <traceyghdi@gmail.com>; 'Misty Hill' <hdi2@bellnet.ca>; 'Aaron Detlor' <aarondetlor@gmail.com>; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>
Subject: HDI Stage 2 Program Request

Dear Wayne,

Nice to talk to you today. Per our conversation I would respectfully request that HDI give Imperial time to consider the possible impacts that increased test pitting would have on the program. Imperial requests that fieldwork be allowed to continue as this discussion progresses. As you are aware there are many variables in conducting a thorough program. In the short time that the program has been in operation, there has been a find. This indicates that the current methodology should not be completely dismissed, however there is an opportunity for discussion and an understanding of all the interests involved.

Imperial would like a better understanding of HDI's past experience. If you could provide examples from past fieldwork that support your request, that would be very helpful to the discussion. Imperial will have a response to your request by Monday morning. Thank you for your consideration and Imperial looks forward to productive and meaningful discussions with the HCCC and HDI.

I am on my way back to Sarnia, give me a call if you wish, otherwise I look forward to HDI's response.

Respectfully,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Williams, Kelly /C](mailto:Williams_Kelly/C)
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: HDI Stage 2 Program Request
Date: Friday, May 24, 2019 9:47:08 AM

From: Wayne Hill [mailto:tworowarchaeology@gmail.com]
Sent: Wednesday, May 22, 2019 3:57 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Todd Williams <williams.todde@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; HDI <hdi2@bellnet.ca>; Aaron Detlor <aarondetlor@gmail.com>; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>
Subject: Re: HDI Stage 2 Program Request

Hi Kelly,

The HDI has not stopped fieldwork we've only requested to have our questions and concerns appropriately addressed. That's to apply MTCS stage 2 test pit standards and guidelines best practices and have all the mapping as per your consultant.

Thanks Wayne,

On Wed, May 22, 2019, 3:31 PM Williams, Kelly /C, <kelly.williams@esso.ca> wrote:

Dear Wayne,

Nice to talk to you today. Per our conversation I would respectfully request that HDI give Imperial time to consider the possible impacts that increased test pitting would have on the program. Imperial requests that fieldwork be allowed to continue as this discussion progresses. As you are aware there are many variables in conducting a thorough program. In the short time that the program has been in operation, there has been a find. This indicates that the current methodology should not be completely dismissed, however there is an opportunity for discussion and an understanding of all the interests involved.

Imperial would like a better understanding of HDI's past experience. If you could provide examples from past fieldwork that support your request, that would be very helpful to the discussion. Imperial will have a response to your request by Monday morning. Thank you for your consideration and Imperial looks forward to productive and meaningful discussions with the HCCC and HDI.

I am on my way back to Sarnia, give me a call if you wish, otherwise I look forward to HDI's response.

Respectfully,

Kelly Williams
Community Relations Officer
602 Christina Street

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: HDI Stage 2 Program Request
Date: Friday, May 24, 2019 9:47:08 AM

On Fri, May 24, 2019, 12:32 PM Wayne Hill, <tworowarchaeology@gmail.com> wrote:
Hi Kelly,

Sorry I was driving to the location. I would like to make it abundantly clear as to how this was resolved. Insistence by the HDI's archaeological staff as Imperial Oils consultant seems adamant to write areas off prematurely as disturbed which is a colonial method causing hostility which isn't needed.

I'll return your call shortly.

Wayne

From: Williams, Kelly /C
Sent: Friday, May 24, 2019 11:38 AM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: Todd Williams <williams.todde@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; HDI <hdi2@bellnet.ca>; Aaron Detlor <aarondetlor@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>
Subject: RE: HDI Stage 2 Program Request

Hi Wayne,

I left you a voicemail message regarding this site earlier. It has been determined that the interests of all involved in the program will be best served if the clearance issue for this area is resolved in the field. If all avenues for a satisfactory resolution have been explored and there are still concerns, please contact me immediately.

Sincerely,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: Wayne Hill [<mailto:tworowarchaeology@gmail.com>]

Sent: Friday, May 24, 2019 10:29 AM

To: Williams, Kelly /C <kelly.williams@esso.ca>

Cc: Todd Williams <williams.todde@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; HDI <hdi2@bellnet.ca>; Aaron Detlor <aarondetlor@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>

Subject: Re: HDI Stage 2 Program Request

Good morning Kelly,

How are you?

Thank you for the phone call. As I explained were having a difference of opinion and ideas to archaeological methodology at yesterday's location. The HDI/HCCC has raised our concerns through the appropriate channels. It would be beneficial if we can identify a resolution that is useful and productive for both sides. Unfortunately at this time we just can't turn a blind eye when archaeological potential exists especially when Imperial Oil's consultant is disregarding our perspective and approach.

Wayne

I'm enquiring

On Thu, May 23, 2019, 12:09 PM Wayne Hill, <tworowarchaeology@gmail.com> wrote:

Good morning Kelly,

Thank you for the email. When can the HDI expect our mapping? It is integral for review our process. Also we're having issues at area wfn 4108 as the consultant is trying right off areas stating no archaeology potential even though the HDI has identified material to the contrary. We vehemently disagree with the recommendations.

It would be appreciated if Imperial Oil explain the role of ERM Jenna Down? As she is not a professional licensed MTCS archaeologist and may be overstepping her limitations in her current position.

Wayne

On Thu, May 23, 2019, 9:12 AM Williams, Kelly /C, <kelly.williams@esso.ca> wrote:

Good morning Wayne,

Understood. I will get the mapping to you asap. Thanks! -kelly

From: Wayne Hill [mailto:tworowarchaeology@gmail.com]

Sent: Wednesday, May 22, 2019 3:57 PM

To: Williams, Kelly /C <kelly.williams@esso.ca>

Cc: Todd Williams <williams.todde@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; HDI <hdi2@bellnet.ca>; Aaron Detlor <aarondetlor@gmail.com>; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo,

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: HDI Stage 2 Program Request
Date: Thursday, May 30, 2019 2:52:54 PM

From: Williams, Kelly /C
Sent: Thursday, May 30, 2019 4:53 PM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: Todd Williams <williams.todde@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; HDI <hdi2@bellnet.ca>; Aaron Detlor <aarondetlor@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>
Subject: RE: HDI Stage 2 Program Request

Good afternoon Wayne,

I thought the field visit was valuable, and I am looking forward to the next time I can get out and see everyone again. Thank you for sending the email regarding the work in the field today. I have secured a commitment from key members of the project team to participate in a conference call with you to discuss. A request for MCTS participation has also been made. As soon as a mutually agreeable time can be established I will send you the details.

- Imperial is committed to discussing HDI's concerns and addressing them appropriately. A memo providing Imperial's responses to HDI's concerns regarding the Stage 2 archaeology field program methodology will be sent to you and the MCTS in advance to the teleconference call.
- With respect to requests/concerns that do not align with MTCS Standards and Guidelines and the archaeologist's professional opinion:
 - Certain requests need to be considered by the project team and field work will continue as planned while Imperial assesses any significant requests and the impact to the overall project
 - Continuation of field work does not prevent changes to the field work methodology after HDI and Imperial have the opportunity to discuss concerns

Thanks once again for your patience and willingness to continue productive communication as Imperial and HDI work toward resolution.

Respectfully,

Kelly Williams

Community Relations Officer
602 Christina Street

Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: Wayne Hill [<mailto:tworowarchaeology@gmail.com>]
Sent: Thursday, May 30, 2019 1:50 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Todd Williams <williams.todde@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; HDI <hdi2@bellnet.ca>; Aaron Detlor <aarondetlor@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>
Subject: Re: HDI Stage 2 Program Request

Good afternoon Kelli,

Thank you for the site visit from yesterday and patience working with us. Unfortunately its come to the HDI/HCCC attention that your archaeology consultant has been directed to disregard our archaeological perspective and the Haudenosaunees' treaty rights . They are adamant to continue to keep working despite our requests for a discussion before proceeding further. I hope this isn't the case and that you can provide immediate clarity and respect to our positions. As this escalation of agressive hostility is not warranted or appreciated.

Thanks Wayne,

On Fri, May 24, 2019, 12:32 PM Wayne Hill, <tworowarchaeology@gmail.com> wrote:

Hi Kelly,

Sorry I was driving to the location. I would like to make it abundantly clear as to how this was resolved. Insistence by the HDI's archaeological staff as Imperial Oils consultant seems adamant to write areas off prematurely as disturbed which is a colonial method causing hostility which isn't needed.

I'll return your call shortly.

Wayne

On Fri, May 24, 2019, 11:38 AM Williams, Kelly /C, <kelly.williams@esso.ca> wrote:

Hi Wayne,

I left you a voicemail message regarding this site earlier. It has been determined that the interests of all involved in the program will be best served if the clearance issue for this area is resolved in the field. If all avenues for a satisfactory resolution have been explored

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: June 4, 2019 10:35 AM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: HDI Stage 2 Program Request
Attachments: 2019.06.04 Memo to HDI from Imperial with attachments Final.pdf

From: Williams, Kelly /C
Sent: Monday, June 3, 2019 4:27 PM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: 'Todd Williams' <williams.todde@gmail.com>; 'Brian Doolittle' <ganowa@me.com>; 'HDI Tracy' <traceyghdi@gmail.com>; 'HDI' <hdi2@bellnet.ca>; 'Aaron Detlor' <aarondetlor@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; 'Jenna Down' <Jenna.Down@erm.com>; 'Curtis Campbell' <Curtis.Campbell@erm.com>; 'andrea.williams@ontario.ca' <andrea.williams@ontario.ca>
Subject: RE: HDI Stage 2 Program Request

Good afternoon Wayne,

As mentioned in my previous email, I have attached a memo to HDI from Imperial to address concerns related to the Stage 2 Archaeology program for the Waterdown-Finch Project. Imperial is committed to scheduling a conference call with HDI and the MCTS to continue the discussion. We have requested a meeting time with MCTS and we are waiting for a response.

The Stage 2 maps you have requested will be available tomorrow. Imperial is also committed to an in-person meeting with HDI, and I will continue to work with Misty to schedule a mutually agreeable date for this to occur. If you have any questions, please contact me.

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: Williams, Kelly /C
Sent: Thursday, May 30, 2019 4:53 PM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: Todd Williams <williams.todde@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; HDI <hdi2@bellnet.ca>; Aaron Detlor <aarondetlor@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>
Subject: RE: HDI Stage 2 Program Request

From: [Murillo, Breanna K /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: HDI Stage 2 Program Request
Date: Thursday, July 4, 2019 11:19:13 AM
Attachments: [Screenshot_20190606-155159_Messages.jpg](#)
[Screenshot_20190606-155205_Messages.jpg](#)

From: Wayne Hill [<mailto:tworowarchaeology@gmail.com>]

Sent: Thursday, June 6, 2019 2:17 PM

To: Williams, Kelly /C <kelly.williams@esso.ca>

Cc: Todd Williams <williams.todde@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; HDI <hdi2@bellnet.ca>; Aaron Detlor <aarondetlor@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>; andrea.williams@ontario.ca; <Katherine.Cappella@ontario.ca>

Subject: Re: HDI Stage 2 Program Request

Good afternoon Kelly,

The HDI is quite upset and dismayed by the ignorance of Past Recovery actions removing artifacts from a potential archaeology site without our consent, involvement and or engagement. This took place unbeknownst to us as we were monitoring the work location. It was explained to us Past Recovery was only going ahead to check field conditions by way of visual inspection however to our shock this was not the case as you can see by the attached pics. Fields had been assessed without our involvement and more atrociously our ancestors' archaeological heritage was illegally removed from a registered or non-registered a site which is against the Ontario Heritage Act and penalties should be applied.

I expect an investigation and a full explanation for this matter.

Wayne

On Wed, Jun 5, 2019, 7:55 AM Williams, Kelly /C, <kelly.williams@esso.ca> wrote:

Hi Wayne,

Imperial has asked for Andrea Williams from the MTCS participate in the teleconference call regarding HDI's concerns with the Stage 2 Archaeology program for the Waterdown-Finch Project. She is not available until next week, however Imperial is willing to schedule the call with HDI this week. Let me know how HDI would like to proceed and I will schedule.

Per your request, here is the link to the mapping for the Stage 2 program, showing the areas to be test pitted and areas to be plowed. Let me know if you have any trouble opening the link. ERM/Imperial will also be issuing regular summary reports so that HDI may track the progress/completion of parcels.

Enjoy the day! -kelly

https://theermgroup-my.sharepoint.com/:b/g/personal/daniel_walker_erm_com/EWGAVIIjJB9Fnxf3P6gHSJ0B0tpWJkzWUHTMK2VIj9gwyA?e=L2IsnW

From: Williams, Kelly /C

Sent: Monday, June 3, 2019 4:27 PM

To: 'Wayne Hill' <tworowarchaeology@gmail.com>

Cc: 'Todd Williams' <williams.todde@gmail.com>; 'Brian Doolittle' <ganowa@me.com>; 'HDI Tracy' <traceyghdi@gmail.com>; 'HDI' <hdi2@bellnet.ca>; 'Aaron Detlor' <aarondetlor@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; 'Jenna Down' <Jenna.Down@erm.com>; 'Curtis Campbell' <Curtis.Campbell@erm.com>; 'andrea.williams@ontario.ca' <andrea.williams@ontario.ca>

Subject: RE: HDI Stage 2 Program Request

Good afternoon Wayne,

As mentioned in my previous email, I have attached a memo to HDI from Imperial to address concerns related to the Stage 2

From: [Williams, Kelly /C](mailto:Williams_Kelly_C@esso.ca)
To: [Projectmail - Wood E&I Calgary - Consultation](mailto:Projectmail - Wood E&I Calgary - Consultation@esso.ca)
Subject: FW: HDI Stage 2 Program Request
Date: Tuesday, July 16, 2019 8:08:38 AM

From: Williams, Kelly /C
Sent: Friday, June 7, 2019 4:02 PM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: 'Todd Williams' <williams.todde@gmail.com>; 'Brian Doolittle' <ganowa@me.com>; 'HDI Tracy' <traceyghdi@gmail.com>; 'HDI' <hdi2@bellnet.ca>; 'Aaron Detlor' <aarondetlor@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; 'Jenna Down' <Jenna.Down@erm.com>; 'Curtis Campbell' <Curtis.Campbell@erm.com>; 'andrea.williams@ontario.ca' <andrea.williams@ontario.ca>; '<Katherine.Cappella@ontario.ca>' <Katherine.Cappella@ontario.ca>
Subject: RE: HDI Stage 2 Program Request

Hi Wayne,

Imperial has been provided with this explanation from the Archaeology Project Team.

A team of 3 went to proactively inspect the fields to ensure conditions are adequate for pedestrian survey starting today. While out there they encountered an adze. They recorded the location of the adze with their GPS unit and mapped the location.

To leave an artifact in the field of this importance would expose it to risk of being looted or lost. The archaeologist did the most appropriate action for the circumstance they were in. The artifact was found on WTFN1008 at GPS point 593684.579,4808076.057. This parcel is scheduled to be fully assessed on Tuesday.

By recording the location, bagging the artifact and taking it with them they can ensure the artifact is safe. They can also return to the exact location with the GPS coordinates to intensify and complete the assessment.

Imperial's preference is that information such as this, be communicated to all FN monitors in the field for discussion and collaboration. Thank you for bringing HDI's concern forward. With HDI's input we can work together to ensure that a situation like this is avoided in the future.

Contact me if you have any questions. Have a great weekend!

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: Williams, Kelly /C
Sent: Friday, June 7, 2019 10:10 AM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: Todd Williams <williams.todde@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; HDI <hdi2@bellnet.ca>; Aaron Detlor <aarondetlor@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>; andrea.williams@ontario.ca; <Katherine.Cappella@ontario.ca> <Katherine.Cappella@ontario.ca>
Subject: RE: HDI Stage 2 Program Request

Good morning Wayne-I signed off at 4pm yesterday, I saw your email first thing this morning, I apologize for not replying yesterday. I am gathering the facts and will have a response for you shortly. Thanks!-kelly

From: Wayne Hill [<mailto:tworowarchaeology@gmail.com>]
Sent: Thursday, June 6, 2019 4:17 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Todd Williams <williams.todde@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI Tracy <traceyghdi@gmail.com>; HDI <hdi2@bellnet.ca>; Aaron Detlor <aarondetlor@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C

Imperial Waterdown to Finch Pipeline Replacement Project June 17, 2019 10:00am HDI Office Meeting Summary	
Participants	
<p><i>Haudenosaunee Confederacy Chiefs Council (HCCC)/Haudenosaunee Development Institute (HDI)</i></p> <ul style="list-style-type: none"> • Chief Arnold Hill • Brian Doolittle • Todd Williams • Wayne Hill • Misty Hill 	<p><i>Waterdown-Finch Project Team</i></p> <ul style="list-style-type: none"> • Elias Majdalani, Waterdown to Finch Project Manager, Exxon Mobil • Martin Bates, Engineering Maintenance and Projects Manager, Imperial • Kelly Williams, Community Relations Officer, Imperial • Burke Vindevoghel, Legal, Imperial (phone) • Dan Walker, ERM (phone) • Jenna Down, ERM • Brenda Kennett, Archaeologist, Past Recovery • Lisa Merritt, Archaeologist, ASI Inc. • Robert MacDonald, Archaeologist, ASI Inc. • Andrea Williams, Ontario Ministry of Tourism, Culture and Sport
Objective(s)	
<ul style="list-style-type: none"> • To discuss the archaeology methodology and field protocol for the Stage 2 Program for the Project 	
Topic	Discussion
<p>Methodology Memo Discussion</p>	<p>Memo detailing the methodology for the project archaeology was provided by Past Recovery (PR). Project team acknowledge the need to understand the HCCC/HDI perspective and address concerns, while maintaining efficiency and accountability of the project.</p> <p>HCCC/HDI relayed concerns with testing parcels with higher potential. There is no mechanism in the Ministry of Tourism Culture and Sport (MTCS) Standards and Guidelines (S&Gs) to incorporate Haudenosaunee input into an on-the ground methodology. A summary of shovel test pitting vs pedestrian survey was discussed.</p> <p>HCCC/HDI agreed that with documents provided (Stage 1 report) and Stage 2 mapping to be provided that HCCC/HDI can inform Imperial which parcels are viewed as requiring intensification due to higher potential from their perspective.</p>
<p>Professional Judgement</p>	<p>HCCC/HDI noted that it was not clear whose professional judgement was being considered in methodology and field decisions. PR noted that the S&G's refer to the judgement of the archaeology license holder, to determine Stage 2 methodology (Shovel Test Pitting (STP) vs ploughing). PR confirmed that both methods were distributed in the testing area according to rural vs urban context.</p> <p>Break down is 40% pedestrian survey/60% STP. There are also areas where the landowner has denied ploughing and STP is employed and in-line with the S&Gs. Sports fields and other open land without access are also not conducive to ploughing.</p>
<p>Other Methods</p>	<p>HCCC/HDI expressed concern that depth of deeply buried deposits may not be identified and asked for clarification on the method of trenching. PR indicated there</p>

	<p>may be areas with buried topsoil and STP may not be feasible due to depth. S&Gs allow for other assessment techniques, including mechanical excavation, e.g., trenching.</p> <p>HCCC/HDI requested clarification on decision to return to parcel to use trenching method, and how will HCCC/HDI know that the Project will in fact go back and revisit such areas? PR outlined the process for returning to unevaluated parcels, which includes a tracking database, recording the results of each parcel and completion.</p>
HDI Monitor Input	HCCC/HDI asked how HDI monitors were or were not being included in field decision making. PR outlined the process for engaging with the monitors assigned in the field, with opportunities to provide a better relay of communication.
Stage 1 Report	HCCC/HDI expressed concern regarding sites outside of surveyed test parcels. PR indicated that site registration would flag these sites and were included in the Stage 1 Report that has been submitted to the MTCS. Available mapping has been redacted so some site locations are not generally known. This includes major sites like Medad and other small find spots.
Determining Methodology for Stage 2	<p>HCCC/HDI inquired as to how the assessment strategy was developed in light of the corridor being high potential and if the MTCS was consulted to determine the strategy. PR reviewed the factors that determine potential.</p> <p>PR noted that the high level determination done for Stage 1 report at this scale requires adjustments to Stage 2 strategy in the field. HCCC/HDI noted that the S&Gs are simply a minimal approach and archaeologists could go beyond them using professional judgement.</p>
S&Gs	<p>HCCC/HDI asked why 5 m intervals were advised in the guidelines. PR summarized how the S&Gs were developed in consultation with the archaeology profession. There are also different S&G's for different terrain conditions throughout the province.</p> <p>ASI provided information about the rationale for survey transects with historical and methodology perspective. HCCC/HDI reported that they had submitted recommendations to the MTCS for additions/amendments to the S&Gs several years ago.</p>
Found Artifacts	PR noted that once an artifact is found that it should be left in situ and Avoidance and Protection procedure be implemented. HCCC/HDI stressed the importance of consultation with monitors and community staff when this occurs.
Stage 3 Sites	HCCC/HDI and Imperial inquired regarding how many sites had been identified for Stage 3 assessment. PR indicated that several have been identified.
Stage 2 Reports and Summaries	HCCC/HDI asked when the Stage 2 reports would be available for their review. PR noted that the corridor is 15% complete to date; however, Stage 2 summaries will be provided with opportunity for HCCC/HDI to comment when available.
Issues to be resolved	<p>HCCC/HDI outlined issues they feel need to be resolved.</p> <ul style="list-style-type: none"> ○ Capacity funding to review reports ○ Trenching as a method to deal with deeply buried topsoil ○ Intervals of STP survey ○ Prefers to sit down with consultants and resolve concerns because HDI wants to do more work with consultants

	<i>Follow-up: HCCC/HDI to review Stage 1 report and Stage 2 mapping when provided and identify areas to request intensification. Reasonable funding to review reports and mapping can be provided.</i>
Field Protocol	<p>Imperial explained that it is the preference that issues be discussed and resolved in the field with input from monitor/field directors/licensed archaeologist. However, when this is unable to be accomplished HCCC/HDI can communication concerns to Imperial via Kelly Williams to escalate for resolution. While HCCC/HDI and Imperial work to resolve the concern, field work will continue.</p> <p>Tailgate meetings are another mechanism to ensure good communication of information in the field. Tailgate sheets are distributed to crews on Fridays to itemize parcels to be completed in the next week, keeping in mind the external factors that may change the logistics.</p>
Conclusion	HCCC/HDI noted that PR and ASI are doing good field work and will reach out the MTCS to address issues with S&Gs. Imperial provided an open invitation to have further meetings to discuss issues and project progress.

Follow-ups

Item #	Follow-up	Responsible	Timeline
1	<i>HCCC/HDI to review Stage 1 report and Stage 2 mapping when provided and identify areas to request intensification.</i>	HCCC/HDI	ASAP

From: [Murillo, Breanna K /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Permitting/Procedural Order
Date: Thursday, July 4, 2019 11:19:40 AM
Attachments: [190617 Environmental Permitting Overview.pptx](#)
[PO2 Imperial LTC 20190610.pdf](#)

From: Williams, Kelly /C
Sent: Tuesday, June 18, 2019 9:27 AM
To: Todd Williams <williams.todde@gmail.com>; Wayne Hill <tworowarchaeology@gmail.com>
Cc: Brian Doolittle <ganowa@me.com>; HDI <hdi2@bellnet.ca>; HDI Tracy <traceyghdi@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Curtis Campbell <Curtis.Campbell@erm.com>; Nicole Bishop <Nicole.Bishop@erm.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Aaron Detlor <aarondetlor@gmail.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Subject: Waterdown-Finch Project-Imperial Oil Ltd-Permitting/Procedural Order

Good morning Todd and Wayne,

Thanks again for meeting with the project team last Friday. The meeting notes will be summarized and a copy will be provided to HDI shortly.

I wanted to provide you with an update on the Leave to construct process for Imperial's Waterdown to Finch Project currently ongoing with the Ontario Energy Board. The OEB issued a Procedural Order on May 31, 2019, which confirmed intervenors and procedural dates. A revision to the Procedural Order (No.2) was issued on June 10, 2019, in response to an extension request from the City of Mississauga and details the following procedural dates:

- July 15** – OEB/intervenors to issue list of Information Requests (IRs) to Imperial
- August 6** – Imperial responses (electronic and hard copy) are required
- August 16** – Imperial to receive written hearing submission from OEB and intervenors
- August 26** – Imperial to provide written hearing responses to OEB

Please see copy of PO No.2 attached. Additional documentation related to the hearing process can be found on the OEB's website [HERE](#).

Additionally, we've put together the attached information regarding the Project's overall environmental permitting process, as well as permit-specific details required for the Project.

Please reach out with any questions, and we would be happy to schedule a meeting to discuss in further detail.

Best regards,

Kelly Williams
Community Relations Officer
602 Christina Street

Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Waterdown-Finch-Imperial Oil Ltd-
Date: Thursday, June 20, 2019 2:15:43 PM
Attachments: [watfin env field scope - final draftkw.DOCX](#)

From: Williams, Kelly /C

Sent: Thursday, June 20, 2019 3:43 PM

To: 'Todd Williams' <williams.todde@gmail.com>

Cc: 'Wayne Hill' <tworowarchaeology@gmail.com>; 'Brian Doolittle' <ganowa@me.com>; 'HDI Tracy' <traceyghdi@gmail.com>; 'HDI' <hdi2@bellnet.ca>; Nicole Bishop <Nicole.Bishop@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>

Subject: Waterdown-Finch-Imperial Oil Ltd-
Hi Todd

Please see the attached information regarding the 2019 Field Program for the Waterdown-Finch Project. It is my understanding that a monitor was present for fieldwork in 2018. ERM will be the contact to provide logistics if HDI would like to engage in this manner once again. Please review and let me know if you have any questions.

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: July 29, 2019 8:07 AM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Murillo, Breanna K /C
Subject: FW: WFP Stage 2 Field Testing WTFN4030
Attachments: ERM_Eastgate Pwky and Dixie Rd WTFN4030.pdf; WFP Stage 2 in Disturbed areas.pdf

From: Brenda Kennett [<mailto:b.kennett@pastrecovery.com>]
Sent: Friday, June 21, 2019 9:09 AM
To: b.kennett@pastrecovery.com
Cc: 'Daniel Walker' <Daniel.Walker@erm.com>; 'Jenna Down' <Jenna.Down@erm.com>; 'Lisa Merritt' <LMerritt@asiheritage.ca>
Subject: WFP Stage 2 Field Testing WTFN4030

Good morning,

As we work through and up-date protocols for the Stage 2 field program we are attempting to respond to your requests for timely documentation related to fieldwork. Going forward, Past Recovery will aim to provide your offices with information in support of fieldwork discussions, decisions and progress at regular intervals. While we develop a more comprehensive reporting protocol, we wanted to address specific issues related WTFN4030 that arose this week.

On the WFP project, we have many locations where extensive areas of disturbance and/or deep fill are presenting challenges for the Stage 2 field testing program as standard shovel test pits on a 5 m grid is not an effective or appropriate assessment methodology. As such, we have prepared a general methodology for how we propose to test these areas (WFP Stage 2 in Disturbed areas – attached). This protocol is in compliance with the MTCS Standards and Guidelines (2011).

With specific reference to WTFN4030, where the ASI crew was working on June 19, a more detailed review of background information has been prepared (ERM_Eastgate Pkwy and Dixie Rd WTFN4030 - attached) in support of the Stage 2 testing methodology for this parcel. We hope that this document addresses any concerns raised in the field on Wednesday and will permit the testing of this parcel to proceed accordingly.

If there are any questions or comments related to either the general methodology or the specific information for WTFN4030, please do not hesitate to contact me.

We join you in recognizing and celebrating National Indigenous Peoples Day today!

With thanks,

Brenda

Brenda Kennett, M.A.
Principal
Past Recovery Archaeological Services Inc.
99C Dufferin Street
Perth, ON K7H 3A5

Phone: 613-267-7028
Mobile : 613-331-2544

Huron-Wendat Nation (HWN)

NATION
huronne-wendatBureau du
Nionwentsio

Wendake, February 28, 2019

Ms. Kelly Williams
Imperial Oil Limited - Esso
Community Relations Officer
602, Christina Street
Sarnia, Ontario, N7T 7M5

Object: Huron-Wendat Nation review of the Draft Environmental Report for the Imperial Waterdown to Finch Project

Kwe Ms. Williams,

The Huron-Wendat Nation would like to confirm that the review of the Waterdown to Finch Project Environmental Report has been completed. The Huron-Wendat Nation agrees with its content and recommendations.

However, our Nation is insisting on the fact that the archaeological studies of the project are not completed to date. Consequently, at this time, our Nation is not in position to confirm whether or not our heritage will be impacted. However, Huron-Wendat Nation would like to reiterate the importance of our engagement for any fieldwork to be conducted as well as our Nation being involved in the archaeological reports writing. Furthermore, any potential impacts on Huron-Wendat heritage must be dealt only with the Huron-Wendat Nation and no other First Nation can speak on behalf of the Huron-Wendat Nation Council.

On another note, we would also like to take this opportunity to point out that since the beginning of this whole process, the relationship between Imperial and our Nation has evolved positively. Our engagement is important, and we acknowledge Imperial Oil's efforts to establish and maintain a bilateral fruitful relationship with us.

Yours truly, Tiawenhk,

Louis Lesage, PhD
Direction of the Nionwentsio Office

From: [Williams, Kelly /C](mailto:Williams_Kelly_C@imperial-isometrix.com)
To: imperial-isometrix@national.ca
Cc: [Majdalani, Elias](mailto:Majdalani_Elias@imperial-isometrix.com); [Malone, Jessie M](mailto:Malone_Jessie_M@imperial-isometrix.com); [Murillo, Breanna](mailto:Murillo_Breanna@imperial-isometrix.com); [Jim Chan](mailto:Jim_Chan@imperial-isometrix.com)
Subject: FW: Draft framework agreement
Date: Thursday, February 28, 2019 1:59:12 PM
Attachments: [image001.jpg](#)
[4159_001.pdf](#)
[Facture_CNHW-ERM-05 \(215\).pdf](#)

ER review letter from Huron Wendat Nation and capacity funding invoice for the review. Email response was sent from me thanking Maxime. -klw

From: Maxime Picard [<mailto:maxime.picard@cnhw.qc.ca>]
Sent: Thursday, February 28, 2019 3:15 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Curtis Campbell <Curtis.Campbell@erm.com>
Subject: RE: Draft framework agreement

Good afternoon Kelly,

Please find attached our letter of comments on the Environmental Report as well as the invoice for our revision fees.

Don't hesitate if you have any question.

Best regards,

Maxime



From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Stage 1 Archaeology Report Update-Waterdown to Finch Project-Imperial Oil Ltd
Date: Monday, April 22, 2019 8:46:27 AM

From: Williams, Kelly /C

Sent: Tuesday, April 16, 2019 3:43 PM

To: Maxime Picard <maxime.picard@cnhw.qc.ca>

Cc: melanievincent21@yahoo.ca; louis lesage <louis.lesage@cnhw.qc.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Jenna Down <Jenna.Down@erm.com>

Subject: Stage 1 Archaeology Report Update-Waterdown to Finch Project-Imperial Oil Ltd

The Stage 1 Archaeology report for the Waterdown-Finch Project was sent to Huron-Wendat last fall for review and comment. Since that time, there have been revisions to the report to address minor changes in the project footprint. Imperial will be delivering it to the MCTS in the next few weeks. However, before this submission, Imperial is providing you with the draft report, maps and a memo summarizing the revisions made since your initial review, including revisions made to incorporate your initial feedback.

The link below will provide you with the following information.

- Revised Stage 1 report
- Memo summarizing the changes made to the Stage 1 report since the last version was reviewed
- Stage 1 archaeological assessment redacted maps

URL: <https://onyx.erm.com>

Username: 0460600

Password: 4KQ6Q2Nh

(Password is case-sensitive)

Let me know if you are unable to access these files. If you have any questions or comments on the revisions, please contact me at your earliest convenience.

Best regards,

Kelly Williams

Community Relations Officer

602 Christina Street

Sarnia, ON Canada N7T 7M5

519-328-8681 Cell

kelly.williams@esso.ca

Imperialoil.ca

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: April 25, 2019 2:52 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Stage 1 Archaeology Report Update-Waterdown to Finch Project-Imperial Oil Ltd

From: Williams, Kelly /C
Sent: Tuesday, April 23, 2019 2:41 PM
To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>
Subject: RE: Stage 1 Archaeology Report Update-Waterdown to Finch Project-Imperial Oil Ltd

Hi Maxime-The emails are finally coming in! I will forward your comments. Thank you! -kelly

From: Maxime Picard [<mailto:maxime.picard@cnhw.qc.ca>]
Sent: Tuesday, April 23, 2019 8:51 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Subject: RE: Stage 1 Archaeology Report Update-Waterdown to Finch Project-Imperial Oil Ltd

Hi Kelly,

So we have reviewed this report and we have no issue with the assessment of archaeological potential. The Ministry may require a bit more documentation of wetlands in some of the stream crossings where they have eliminated potential but they are probably wet.

The report, however, contains significant confusion in Section 3.1.1 in the following section and should be changed as I have suggested in red.
Could you please make the following changes :

During the Late **Ontario** Iroquoian period (600 to 450 B.P.) it becomes possible to differentiate between the archaeological remains associated with groups that would become the **Huron-Wendat**, Petun, and Neutral Nations (Birch 2015; Ramsden 1990). **Ancestral communities of the Neutral were located around the west end of the Lake Ontario Basin (into Halton Region) and in the Niagara Peninsula while ancestral Huron-Wendat and Petun communities were situated along the north central shore of Lake Ontario from roughly the Credit River to the Oshawa area (Birch 2015, Williamson 2014).** Close similarities in the archaeological remains of ancestral and historic period Wendat and Petun communities and linguistic similarities have led scholars to argue that **they were closely connected prior to the historic period.** Ontario Iroquoian material culture is generally characterised by globular-shaped ceramic vessels, ceramic pipes, bone/antler awls and beads, ground stone celts and adzes, chipped stone tools, and copper objects (although the latter are rare). **Ancestral Petun communities have been identified by archaeologists variously among the Neutral (Garrad 2014), and along the Credit and/or Humber Rivers prior to their migration northward to eastern Grey and western Simcoe Counties (Garrad 2014, Hawkins et al 2016 , Williamson 2014).** Similarly. ancestral Wendat communities have been identified along the stream courses that flowed into the central north shore of Lake Ontario. Archaeological evidence suggests that a number of these communities began to migrate to what is now Simcoe County in the late thirteenth century (Williamson 2014, Birch 2015). By the late fifteenth century, populations peaked and stabilised at approximately 30,000 people (Warrick 2008). By the late sixteenth century, it appears that various ancestral Wendat communities had moved away from the central north shore of Lake Ontario (Williamson 2014, Birch 2015) and Trent Valley (Ramsden 1990) to occupy historic Wendake (Simcoe County).

Regards,

Maxime



NATION HURONNE-WENDAT
Bureau du Nionwentsïo

Maxime Picard, B. Sc. A.
Coordonnateur de projets - Ontario

255, Place Chef Michel-Laveau
Wendake (Qc) G0A 4V0
Téléphone : 418-843-3767 # 2105
Courriel : maxime.picard@cnhw.qc.ca



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De : Williams, Kelly /C [<mailto:kelly.williams@esso.ca>]

Envoyé : 16 avril 2019 15:43

À : Maxime Picard

Cc : melanievincent21@yahoo.ca; louis lesage; Malone, Jessie M; Jenna Down

Objet : Stage 1 Archaeology Report Update-Waterdown to Finch Project-Imperial Oil Ltd

The Stage 1 Archaeology report for the Waterdown-Finch Project was sent to Huron-Wendat last fall for review and comment. Since that time, there have been revisions to the report to address minor changes in the project footprint. Imperial will be delivering it to the MCTS in the next few weeks. However, before this submission, Imperial is providing you with the draft report, maps and a memo summarizing the revisions made since your initial review, including revisions made to incorporate your initial feedback.

The link below will provide you with the following information.

- Revised Stage 1 report
- Memo summarizing the changes made to the Stage 1 report since the last version was reviewed
- Stage 1 archaeological assessment redacted maps

URL: <https://onyx.erm.com>

Username: 0460600

Password: 4KQ6Q2Nh

(Password is case-sensitive)

Let me know if you are unable to access these files. If you have any questions or comments on the revisions, please contact me at your earliest convenience.

From: [Williams, Kelly /C](#)
To: [Murillo, Breanna K /C](#)
Cc: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Formal Notice-LTC Submission-Waterdown to Finch-IOL
Date: Thursday, April 25, 2019 7:48:20 AM
Attachments: [Notice_IOL_201904101.pdf](#)

From: Williams, Kelly /C
Sent: Thursday, April 25, 2019 9:48 AM
To: 'louis lesage' <louis.lesage@cnhw.qc.ca>
Cc: 'melanievincent21@yahoo.ca' <melanievincent21@yahoo.ca>; 'Maxime Picard' <maxime.picard@cnhw.qc.ca>; simon picard <simon.picard@cnhw.qc.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: Formal Notice-LTC Submission-Waterdown to Finch-IOL

Dear Louis,

Please find enclosed a Notice of Hearing issued by the Ontario Energy Board (OEB) to consider Imperial’s Leave to Construct application filing for the Waterdown to Finch Project. On February 25, 2019, the Project submitted a Leave to Construct application to the OEB, the province’s energy regulator, who is responsible for ensuring compliance with the province’s environmental guidelines for the location, construction and operation of hydrocarbon pipelines and facilities in Ontario. Imperial’s application reflects the robust environmental planning, stakeholder engagement, cultural, social and heritage assessment process that has taken place since the Project launched in May 2018. The Project will replace a 63-kilometre segment of the Sarnia Products Pipeline between Waterdown and North York. Operating safely in the region for many years, this pipeline provides refined products used by businesses and households across the Greater Toronto and Hamilton Area, including a significant portion of jet fuel at Toronto Pearson International Airport. Subject to provincial regulatory review and receipt of all permits, Imperial expects to start construction on the replacement project by the end of 2019.

Imperial is committed to providing timely and accessible information about the Project and its regulatory review. In accordance with OEB requirements, the Waterdown to Finch Project application and evidence for the Leave to Construct and the Environmental Report will be available for download from Imperial’s project website at imperialoil.ca/waterdowntofinch as well as on the OEB’s regulatory applications page at oeb.ca/industry/applications-oeb.

For more information regarding Imperial’s Project application, the public hearing process and how to file a letter or become an intervenor, interested parties may also reference the file number **EB-2019-0007** on the OEB website: www.oeb.ca/participate. A hard copy of the application will be available for review at Imperial’s head office in Calgary, Alberta as well as its Finch Terminal in North York, Ontario.

Calgary Office Imperial Oil Limited 505 Quarry Park Blvd Calgary, Alberta T2C 5N1	Finch Terminal Imperial Oil Limited 1150 Finch Ave W North York, Ontario M3J 2E4
--	---

This information will also be sent to the Huron-Wendat Nation Chief and Council and a hardcopy of the application will be sent to your office. Should you have any questions about the Project, please do not hesitate to contact me.

Sincerely,

Kelly
Kelly Williams
Community Relations Officer
Imperial's Sarnia Products Pipeline, Waterdown to Finch Project
602 Christina Street
Sarnia ON N7T 7M5
Cell 519 328 7405
imperialoil.ca Twitter YouTube

Imperial Oil Limited has applied to the Ontario Energy Board for approval to construct 63 kilometres of pipeline and associated infrastructure to transport refined oil products from its facility in the City of Hamilton to its facility in the City of Toronto.

Learn more. Have your say.

If approved, the proposed pipeline would replace existing transportation capabilities of refined oil products (gasoline, diesel fuel and jet fuel) between Imperial Oil Limited's Waterdown Pump Station in the City of Hamilton to its Finch Terminal in North York in the City of Toronto. The pipeline and associated infrastructure are located in the City of Hamilton, the City of Burlington, the Town of Milton, the Town of Oakville, the City of Mississauga, and the City of Toronto, as shown in the map below.

Imperial Oil Limited is also asking the Ontario Energy Board to approve the form of agreement it offers to landowners to use their land for location and construction of the proposed pipeline.

on the case. We will also hear questions and arguments from individual consumers, municipalities and others whose interests would be affected. At the end of this hearing, the OEB will decide whether to approve the application.

As part of its review of this application, the OEB will assess Imperial Oil Limited's compliance with the OEB's Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario.

The OEB advises Indigenous communities that the OEB's process for this application may serve as a component of the Crown's duty to consult for this project.

The OEB is an independent and impartial public agency. We make decisions that serve the public interest. Our goal is to promote a financially viable and efficient energy sector that provides you with reliable energy services at a reasonable cost.

BE INFORMED AND HAVE YOUR SAY

You have the right to information regarding this application and to be involved in the process.

- You can review the application filed by Imperial Oil Limited on the OEB's website now.
- You can file a letter with your comments, which will be considered during the hearing.
- You can become an active participant (called an intervenor). Apply by **May 6, 2019** or the hearing will go ahead without you and you will not receive any further notice of the proceeding.
- At the end of the process, you can review the OEB's decision and its reasons on our website.

LEARN MORE

Our file number for this case is **EB-2019-0007**. To learn more about this hearing, find instructions on how to file letters or become an intervenor, or to access any document related to this case, please enter the file number **EB-2019-0007** from the list on the OEB website: <http://www.oeb.ca/noticeltc>. You can also phone our Consumer Relations Centre at 1-877-632-2727 with any questions.

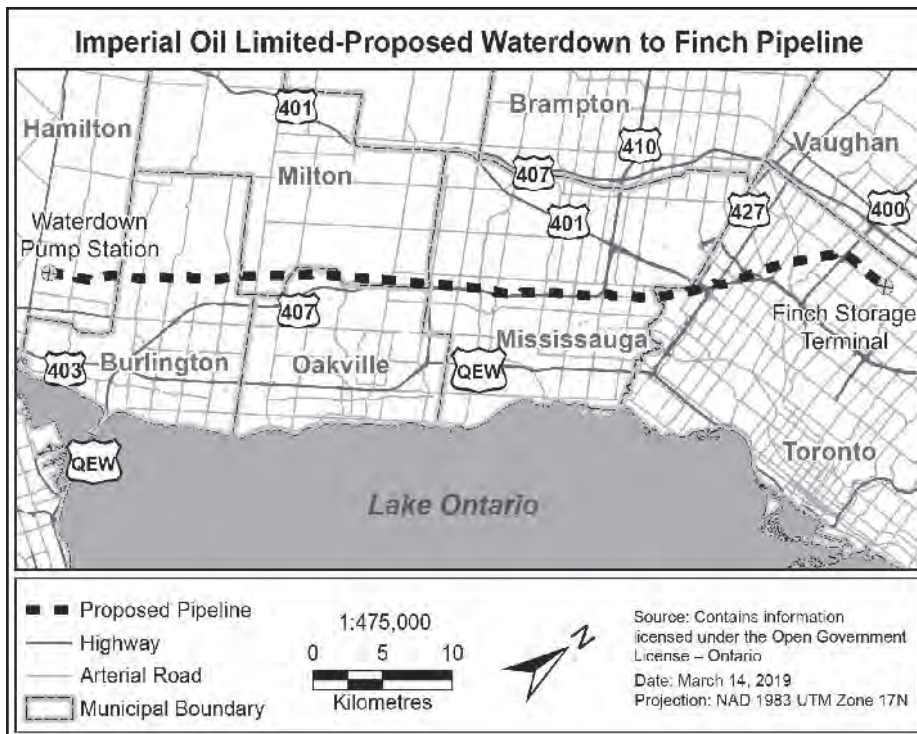
ORAL VS. WRITTEN HEARINGS

There are two types of OEB hearings – oral and written. The OEB intends to proceed with this application by way of a written hearing. If you think an oral hearing is needed, you can write to the OEB to explain why by **May 6, 2019**.

PRIVACY

If you write a letter of comment, your name and the content of your letter will be put on the public record and the OEB website. However, your personal telephone number, home address and email address will be removed. If you are a business, all your information will remain public. If you apply to become an intervenor, all information will be public.

This hearing will be held under sections 90(1) and 97 of the Ontario Energy Board Act, 1998, S.O. 1998, c.15 (Schedule B).



THE ONTARIO ENERGY BOARD IS HOLDING A PUBLIC HEARING

The Ontario Energy Board (OEB) will hold a public hearing to consider the application filed by Imperial Oil Limited. During the hearing, we will question Imperial Oil Limited



Ontario

Ontario Energy Board / Commission de l'énergie de l'Ontario

From: [Jenna Down](#)
To: [Joelle Williams](#); [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Joanne Thomas](#); [Williams, Kelly /C](#); [Maxime Picard](#); [Megan DeVries](#); [Todd Williams](#); [Wayne Hill](#)
Cc: [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#)
Subject: RE: Archaeology- May 9
Date: Wednesday, May 08, 2019 8:55:46 AM
Attachments: [image001.jpg](#)
[image002.png](#)

Hi Joelle,

PR and ERM will be making a call at the end of the day in regards to fieldwork tomorrow. I appreciate your patience with unpredictable weather during springtime as well as coordinating the crews.

Regards,
Jenna

From: Joelle Williams <Joelle.Williams@mncfn.ca>
Sent: Wednesday, May 8, 2019 10:21 AM
To: Jenna Down <Jenna.Down@erm.com>; Consultation.calgary@woodplc.com; Dawn LaForme <dlaforme@sixnations.ca>; Joanne Thomas <jthomas@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Maxime Picard <maxime.picard@cnhw.qc.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>; Todd Williams <williams.todde@gmail.com>; Wayne Hill <tworowarchaeology@gmail.com>
Cc: Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>
Subject: RE: Archaeology- May 9

Good morning Jenna,

Please let me know, at your earliest convenience, if you plan to return to site tomorrow and what the crew numbers will be. The FLR on site today reported there was close to 30 people on site today.

Thank you,
Joelle

From: Jenna Down [<mailto:Jenna.Down@erm.com>]
Sent: Friday, May 3, 2019 7:03 PM
To: Consultation.calgary@woodplc.com; Dawn LaForme; Joanne Thomas; Joelle Williams; Williams, Kelly /C; Maxime Picard; Megan DeVries; Todd Williams; Wayne Hill
Cc: Curtis Campbell; Matthew Scoular; Mark Welsh; Daniel Walker
Subject: Archaeology- Wednesday May 8

Hello,

Moving forward, but keeping weather and saturation levels in mind, we would like to continue with one crew on Wednesday, May 8th. We will be replicating the crew size we had last week (20 archaeologists).

From: [Jenna Down](#)
To: [Wayne Hill](#)
Cc: [Williams, Andrea \(MTCS\)](#); <Katherine.Cappella@ontario.ca>; [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Joanne Thomas](#); [Williams, Kelly /C](#); [Maxime Picard](#); [Megan DeVries](#); [Todd Williams](#); [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#); [Joelle Williams](#); [Nicole Bishop](#)
Subject: RE: Archaeology- May 9
Date: Wednesday, May 08, 2019 4:40:13 PM
Attachments: [image001.jpg](#)
[image002.png](#)

Hi Wayne, thank you for your note - Imperial will be sending a response to your concern shortly.

Best,
Jenna

From: Wayne Hill <tworowarchaeology@gmail.com>
Sent: Wednesday, May 8, 2019 11:53 AM
To: Jenna Down <Jenna.Down@erm.com>
Cc: Williams, Andrea (MTCS) <Andrea.Williams@ontario.ca>; <Katherine.Cappella@ontario.ca>
<Katherine.Cappella@ontario.ca>; Consultation.calgary@woodplc.com; Dawn LaForme
<dlaforme@sixnations.ca>; Joanne Thomas <jthomas@sixnations.ca>; Williams, Kelly /C
<kelly.williams@esso.ca>; Maxime Picard <maxime.picard@cnhw.qc.ca>; Megan DeVries
<Megan.DeVries@mncfn.ca>; Todd Williams <williams.todde@gmail.com>; Curtis Campbell
<Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh
<Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>; Joelle Williams
<Joelle.Williams@mncfn.ca>; Nicole Bishop <Nicole.Bishop@erm.com>
Subject: Re: Archaeology- May 9

Hi Jenna,

Thank you the your response. Let me clarify, first of all that is minmally 25 field staff not 20 which was not indicated whatsoever in previous emails. Second of all do they have any type of Ontario archaeological experience, most importantly are they qualified for stage 2 test pitting methodology. This was also not indicated in emails about lack of experience. The HDI will request Ontario archaeological staff 2 years experience in stage 2 test methodology and as previously stated in other emails this is not a training exercise and our Haudenosaunee asserted 1701 Nanfan treaty lands nor our ancestors' archaeological heritage be succumb to subpar minimalist methods or tactics. The archaeology cannot proceed under conditions such as this and is outright wrong for Imperial Oil to force us into doing.

Wayne

On Wed, May 8, 2019 at 11:37 AM Jenna Down <Jenna.Down@erm.com> wrote:

Hi Wayne, thank you for your email. Please allow me to clarify.
Currently there are 17 Past Recovery archaeologists and 8 ASI archaeologists on site. We also have 2 ERM Field Directors - Chris Thorne and Tiffany McLellan. As it is Tiffany's first day she is shadowing Dan Walker to ensure she effectively trained on this very complex project. Cortney Blackburn is also on site with TGH (safety consultants) to ensure safety around locates as well as field personnel. Please note, all archaeologists on site are qualified to excavate and are either in

the process of completing a degree in Archaeology or are in possession of an Archaeology degree. As we have only been in the field for one short block of 6 days, and beginning our second block with unpredictable weather coupled with scheduling complexities, we appreciate your patience and understanding as we work hard to find the best solutions to meet the expectations of all First Nation communities, Imperial, UPI, archaeologists as well as the ERM team.

Thank you again and I hope I have resolved your concerns. Speak soon,

Jenna

From: Wayne Hill <tworowarchaeology@gmail.com>

Sent: Wednesday, May 8, 2019 10:47 AM

To: Jenna Down <Jenna.Down@erm.com>; Williams, Andrea (MTCS)

<Andrea.Williams@ontario.ca>; <Katherine.Cappella@ontario.ca>

<Katherine.Cappella@ontario.ca>

Cc: Consultation.calgary@woodplc.com; Dawn LaForme <dlaforme@sixnations.ca>; Joanne

Thomas <jthomas@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Maxime Picard

<maxime.picard@cnhw.qc.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>; Todd Williams

<williams.todde@gmail.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular

<Matthew.Scoular@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker

<Daniel.Walker@erm.com>; Joelle Williams <Joelle.Williams@mncfn.ca>

Subject: Re: Archaeology- May 9

Good morning,

The HDI has also learned there is 30 field staff on site. This was not indicated in previous emails or memos provided. I respectfully ask to cease and desist archaeological excavations and furthermore the extra people are not qualified field staff lacking archaeological field experience. This is unacceptable considering the sensitivity and importance for this project since there has already been raised questions and concerns about the efficiency of stage 2 test pitting for identifying archaeological potential.

This will not used as an archaeological training exercise especially considering there has been no engagement.

Thanks Wayne,

On Wed, May 8, 2019 at 10:20 AM Joelle Williams <Joelle.Williams@mncfn.ca> wrote:

Good morning Jenna,

Please let me know, at you earliest convenience, if you plan to return to site tomorrow and what the crew numbers will be. The FLR on site today reported their was close to 30 people on site today.

Thank you,
Joelle

From: Jenna Down [mailto:Jenna.Down@erm.com]

Sent: Friday, May 3, 2019 7:03 PM

To: Consultation.calgary@woodplc.com; Dawn LaForme; Joanne Thomas ; Joelle Williams; Williams, Kelly /C; Maxime Picard ; Megan DeVries; Todd Williams ; Wayne Hill

Cc: Curtis Campbell; Matthew Scoular; Mark Welsh; Daniel Walker

Subject: Archaeology- Wednesday May 8

Hello,

From: [Jenna Down](#)
To: [Joanne Thomas](#); Joelle.Williams@mncfn.ca; [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Williams, Kelly /C](#); maxime.picard@cnhw.qc.ca; Megan.DeVries@mncfn.ca; williams.todde@gmail.com; [Wayne Hill](#)
Cc: [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#); [Nicole Bishop](#); [Williams, Kelly /C](#); [Murillo, Breanna K /C](#)
Subject: RE: Archaeology- May 9
Date: Wednesday, May 08, 2019 4:53:43 PM
Attachments: [image001.jpg](#)
[image002.png](#)

Hi Joanne, sorry for the delay and thank you for your note.

Imperial will be sending a response to your concern shortly.

Best,
Jenna

From: Joanne Thomas <jthomas@sixnations.ca>
Sent: Wednesday, May 8, 2019 11:48 AM
To: Jenna Down <Jenna.Down@erm.com>; Joelle.Williams@mncfn.ca; Consultation.calgary@woodplc.com; Dawn LaForme <dlaforme@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; maxime.picard@cnhw.qc.ca; Megan.DeVries@mncfn.ca; williams.todde@gmail.com; Wayne Hill <tworowarchaeology@gmail.com>
Cc: Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>; tworowarchaeology@gmail.com; Williams, Kelly /C <kelly.williams@esso.ca>
Subject: RE: Archaeology- May 9

Hi jenna

My monitor has just informed me of the issue of the amount of people on site and how they are inexperienced because a show and tell session was held after the tailgate meeting.

I am concerned about the ratio of field crew to my monitor. 30 to 1 is quite a difference. New credit and the HDI have their own different process of monitoring and we do not represent each other in any way.

So in the near future I will be using this site to train my new monitors one at a time along with my experienced monitor. I will ensure they have the right online safety. This issue needs to be addressed with all.

JT

Sent with BlackBerry Work
(<https://clicktime.symantec.com/3QaWhAtZhyfiJiTJZibaTcf6H2?u=www.blackberry.com>)

From: Jenna Down <Jenna.Down@erm.com>

Imperial Waterdown to Finch Pipeline Replacement Project May 8, 2019 ERM Toronto Office Meeting Summary	
Participants	
<i>Huron-Wendat</i> <ul style="list-style-type: none"> • Maxime Picard, Ontario Project Coordinator • Simon Picard, Legal Counsel • Louis Lesage, Executive Director • Ron Williamson, Archaeology Advisor 	<i>Imperial</i> <ul style="list-style-type: none"> • Kelly Williams, Community Relations Officer • Corinne Thiessen, Stakeholder Relations • Elias Majdalani, Waterdown to Finch Project Manager • Matthew Scoular, ERM • Daniel Walker, ERM (phone) • Jenna Down, ERM • Brenda Kennett, Past Recovery
Objective(s)	
<ul style="list-style-type: none"> • To discuss the Parsons Site 	
Topic	Discussion
Consultation	<p>HWN maintains the position that the protection and care of the Parsons site is vital to the preservation of the history and cultural heritage of their Nation. They request that Imperial share and discuss all project plans with them in advance, so they may provide their input and express any concerns associated with project plans.</p> <p>Imperial committed to ongoing project consultation with HWN, with an understanding of the significance of the Parson’s site.</p>
Parson’s Site Location	<p>HWN discussed a published report in an Ontario Archaeology (1998) volume on the Parsons Site documenting ASI’s 1989-90 excavations and earlier research by others on the site. The village is largely intact and likely contains ossuaries.</p> <p>HWN asked to see Imperial’s existing pipeline location in relation to the Parsons site.</p> <p>ERM pulled up mapping from the UPI portal to show the location of Imperial’s existing 12’ pipeline and their proposed 12’ replacement pipeline in relation to the Parsons site.</p> <p><i>ERM to review the location of the proposed Geotechnical bore hole 136 (D), current footprint and previous assessments in relation to the Parson’s site (approximate location in the published report discussed by HWN).</i></p>
Old Pipeline	<p>HWN asked why the old pipeline will be left in place and not removed.</p> <p>Imperial responded by explaining that the deactivated pipe will be removed from service, cleaned, filled with nitrogen (like what we put in our car tires) and left in place. Deactivation is undertaken to reduce environmental impacts (soil stability, slope stabilization and settlement issues), avoid short and long-term community construction impacts and minimize safety risk for other pipelines sharing the right-of-way. Imperial deactivates pipeline segments in accordance with industry best practices (Canadian Standards Association’s Oil and Gas Pipeline Systems Code) and provincial regulations (Technical Standards and Safety Act). Imperial is responsible for paying for the maintenance and</p>

	<p>monitoring of this segment of deactivated pipeline. Imperial remains responsible for ongoing monitoring, line identification and crossing management of the deactivated line.</p> <p>HWN requested to see long-term monitoring strategy for the deactivated pipeline. They would like to see a solution for removal of the pipeline in the future.</p> <p>Imperial has no additional plans to what is described above.</p> <p>HWN expressed their concern for the other aging lines in the corridor as well. Imperial confirmed that there are multiple operators of pipelines in the corridor.</p>
Monitoring	<p>HWN requested a monitor be present during pre-construction activities including:</p> <ul style="list-style-type: none"> • Stage 2 archaeology; • Placement of matting at Borehole 136 and 137; and • Drilling of Borehole 135, 136 and 137. <p>HWN expressed that they want to be present to monitor construction works near the Parsons site. Imperial committed to including HWN in monitoring of the HDD.</p>
Emergency Response	<p>HWN requested to see Imperial’s plan in the event of a pipeline leak during operations in the location of the Parsons site. <i>Imperial to provide information on emergency response to HWN.</i></p>

Follow-ups

Item #	Follow-up	Responsible	Timeline
1	<i>ERM to review the location of the proposed Geotechnical bore hole 136 (D), current footprint and previous assessments in relation to the Parson’s site (approximate location in the published report discussed by HWN).</i>	Jenna	Complete
2	<i>Imperial to provide information on emergency response to HWN.</i>	Kelly	ASAP

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: May 15, 2019 1:56 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles - Imperial Oil Limited

From: Williams, Kelly /C
Sent: Wednesday, May 15, 2019 3:56 PM
To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>
Cc: simon picard <simon.picard@cnhw.qc.ca>; b.kennett@pastrecovery.com; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles -Imperial Oil Limited

Good afternoon Maxime,

I hope you are well and that your construction project is on track.

Moving forward, Past Recovery is implementing some changes to the field crew for the Stage 2 Program and has provided the following explanation. Let me know if you have any questions. Thanks!

To date, Past Recovery and ASI archaeologists have been working together as a single crew. This single crew has allowed Past Recovery's Field Directors (and upper management) to evaluate the skills and technical expertise of ASI's Field Directors. Through assessing ASI's field Directors, Past Recovery ensures consistency in adhering to MTCS S&Gs, while including First Nation monitors and FLRs in discussions regarding appropriate fieldwork conditions, the assessment of archaeological potential, and testing methodology.

Going forward, there will be a dedicated ASI field crew, led by an ASI Field Director in addition to a dedicated Past Recovery field crew, led by a Past Recovery Field Director. The ASI field crew will work Monday to Friday and the Past Recovery field crew will work 10 on 4 off. ERM Field Leads will continue to accompany both crews. Past Recovery will maintain control over the Stage 2 archaeology program, including all supervision of the fieldwork. All ASI field staff have completed, or are in the process of completing, a degree in anthropology, archaeology or another related discipline and include two First Nation archaeologists.

Past Recovery's Field Directors will be checking in with ASI Field Directors on a regular basis and will be visiting the ASI crew often. If issues arise during fieldwork that cannot be resolved, these locations will be deferred until a Past Recovery Field Director can be present to assess the situation in person. Past Recovery's Field Directors will be reviewing all of ASI's field notes, field photographs and fieldwork mapping to ensure that these meet Past Recovery's standards for the project.

Past Recovery will maintain full responsibility of the Stage 2 reporting including the analysis of artifacts and the development of recommendations. First Nation communities will continue to be involved in the development of appropriate recommendations for any sites documented during the Stage 2 fieldwork and will be provided with a draft of the Stage 2 report for review.

Kelly Williams

Community Relations Officer

McArthur, Cheryl

From: Malone, Jessie M <jessie.m.malone@esso.ca>
Sent: May 21, 2019 8:16 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles - Imperial Oil Limited

From: Maxime Picard [<mailto:maxime.picard@cnhw.qc.ca>]
Sent: Friday, May 17, 2019 9:34 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: simon picard <simon.picard@cnhw.qc.ca>; b.kennett@pastrecovery.com; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: RE: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles -Imperial Oil Limited

We are comfortable with this strategy Kelly.



NATION HURONNE-WENDAT
Bureau du Nionwentsio

Maxime Picard, B. Sc. A.

Coordonnateur de projets - Ontario

255, Place Chef Michel-Laveau

Wendake (Qc) G0A 4V0

Téléphone : 418-843-3767 # 2105

Courriel : maxime.picard@cnhw.qc.ca



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De : Williams, Kelly /C [<mailto:kelly.williams@esso.ca>]

Envoyé : 15 mai 2019 15:56

À : Maxime Picard

Cc : simon picard; b.kennett@pastrecovery.com; Murillo, Breanna K /C; Jenna Down; Malone, Jessie M

Objet : WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles -Imperial Oil Limited

Good afternoon Maxime,

I hope you are well and that your construction project is on track.

Moving forward, Past Recovery is implementing some changes to the field crew for the Stage 2 Program and has provided the following explanation. Let me know if you have any questions. Thanks!

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Call
Date: Thursday, May 30, 2019 2:54:13 PM
Attachments: [image001.jpg](#)

From: Williams, Kelly /C
Sent: Thursday, May 30, 2019 11:38 AM
To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>
Subject: RE: Call

Hi Maxime,

There were some methodology issues with HDI if the field Wednesday, and I just wanted to understand HWN's perspective. HWN's monitor was very professional in the field discussions that took place yesterday, which was much appreciated. Give me a call when you get back to the office. Hope it's a great conference! -kelly

From: Maxime Picard [<mailto:maxime.picard@cnhw.qc.ca>]
Sent: Thursday, May 30, 2019 9:34 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Subject: Call

Hi Kelly,

I am in a conference for the whole day today.

I saw that you tried to call me.

Everything is fine on field ?

Thanks,

Maxime



From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: ROC 2113
Date: Thursday, July 18, 2019 8:54:54 AM

Phone call with Maxime P on May 30 to discuss the methodology issue headed by HDI in the field. HWN is fine with the current methodology being employed by the Field Director for parcel assessment. If there are any issues in the future, HWN will bring it to Imperial's attention.

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Meeting Summary/Map
Date: Wednesday, June 12, 2019 1:22:54 PM
Attachments: [2019.05.22 HWN Meeting Summary.docx](#)
[Parsons Site Overlay.pdf](#)

From: Williams, Kelly /C

Sent: Wednesday, June 12, 2019 3:18 PM

To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>

Cc: louis lesage <louis.lesage@cnhw.qc.ca>; simon picard <simon.picard@cnhw.qc.ca>; Jenna Down <Jenna.Down@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; 'Nicole Bishop' <Nicole.Bishop@erm.com>

Subject: Waterdown-Finch Project-Imperial Oil Ltd-Meeting Summary/Map

Good afternoon Maxime,

I have attached the summary for part 1 of our meeting last month. Please review and let me know if we missed any key points. ERM has also provided the map as requested.

In the meeting we discussed emergency response in relation to the Sarnia Products Pipeline. If you recall last year we had a simulation exercise specific to this line. Here is a video that captures how a response would be mobilized. I have also included short videos from the Imperial YouTube channel on deactivation and the HDD construction method.

<https://www.youtube.com/watch?v=j8uLEznNMGk>

<https://www.youtube.com/watch?v=cTrC03sQn6A>

<https://www.youtube.com/watch?v=kEk1cFSU2y0>

Let me know if you have any questions. I will be in touch with proposed dates for our next discussion soon.

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Permitting/Procedural Order
Date: Tuesday, June 18, 2019 9:44:16 AM
Attachments: [190617 Environmental Permitting Overview.pptx](#)
[PO2 Imperial LTC 20190610.pdf](#)

From: Williams, Kelly /C

Sent: Tuesday, June 18, 2019 11:43 AM

To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>

Cc: louis lesage <louis.lesage@cnhw.qc.ca>; melanievincent21@yahoo.ca; simon picard <simon.picard@cnhw.qc.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Nicole Bishop <Nicole.Bishop@erm.com>

Subject: Waterdown-Finch Project-Imperial Oil Ltd-Permitting/Procedural Order

Good morning Maxime,

I wanted to provide you with an update on the Leave to Construct application progress for Imperial's Waterdown to Finch Project with the Ontario Energy Board. The OEB issued a Procedural Order on May 31, 2019, which confirmed intervenors and procedural dates. A revision to the Procedural Order (No.2) was issued on June 10, 2019, in response to an extension request from the City of Mississauga and details the following procedural dates:

July 15 – OEB/intervenors to issue list of Information Requests (IRs) to Imperial

August 6 – Imperial responses (electronic and hard copy) are required

August 16 – Imperial to receive written hearing submission from OEB and intervenors

August 26 – Imperial to provide written hearing responses to OEB

Please see copy of PO No.2 attached. Additional documentation related to the hearing process can be found on the OEB's website [HERE](#).

Additionally, we've put together the attached information regarding the Project's overall environmental permitting process, as well as permit-specific details required for the Project.

Let me know if you have any immediate questions on these materials.

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Williams, Kelly /C](mailto:kelly.williams@esso.ca)
To: [Projectmail - Wood E&I Calgary - Consultation](mailto:kelly.williams@esso.ca)
Subject: FW: OEB
Date: Tuesday, June 25, 2019 5:09:57 PM

-----Message d'origine-----

De : Williams, Kelly /C [<mailto:kelly.williams@esso.ca>] Envoyé : 20 juin 2019 16:16 À : Maxime Picard Cc : simon.picard@cnhw.qc.ca; louis.lesage@cnhw.qc.ca Objet : RE: OEB

Sounds good. Have a great weekend! -kelly

-----Original Message-----

From: Maxime Picard [<mailto:maxime.picard@cnhw.qc.ca>]
Sent: Thursday, June 20, 2019 4:15 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: simon.picard@cnhw.qc.ca; louis.lesage@cnhw.qc.ca
Subject: Re: OEB

Hi Kelly, i will be back at the office on next Tuesday. We can have a call on that day

Envoyé de mon iPhone

> Le 20 juin 2019 à 10:22, Williams, Kelly /C <kelly.williams@esso.ca> a
> écrit :

>

> Good morning Maxime-Let me know when you have time for a call.

> Thanks! -kelly

>

> -----Original Message-----

> From: Maxime Picard [<mailto:maxime.picard@cnhw.qc.ca>]

> Sent: Thursday, June 20, 2019 10:07 AM

> To: Williams, Kelly /C <kelly.williams@esso.ca>

> Cc: simon.picard@cnhw.qc.ca; louis.lesage@cnhw.qc.ca

> Subject: OEB

>

> Good morning Kelly, the Huron-Wendat Nation has taken the decision to

> take an intervenor role in the OEB process. Do Imperial consent to our

> participation ? We would like your support into this. Best, Maxime

>

> Envoyé de mon iPhone

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Waterdown-Finch-Imperial Oil Ltd-2019 Environmental Field Program
Date: Thursday, June 20, 2019 2:15:25 PM
Attachments: [watfin env field scope - final draftkw.DOCX](#)

From: Williams, Kelly /C

Sent: Thursday, June 20, 2019 4:13 PM

To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>

Cc: simon.picard@cnhw.qc.ca; melanievincent21@yahoo.ca; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Nicole Bishop <Nicole.Bishop@erm.com>

Subject: Waterdown-Finch-Imperial Oil Ltd-2019 Environmental Field Program

Hi Maxime,

Please see the attached information regarding the 2019 Field Program for the Waterdown-Finch Project. If you would like to have a monitor from Huron-Wendat Nation participate in the field work, ERM will be the contact for logistics. Please review and let me know how you would like to proceed and if you have any questions.

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Williams, Kelly /C](mailto:Williams_Kelly_C)
To: Projectmail - Wood E&I Calgary - Consultation
Cc: [Murillo, Breanna K /C](mailto:Murillo_Breanna_K_C)
Subject: FW: WFP Stage 2 Field Testing WTFN4030
Date: Monday, July 29, 2019 8:06:54 AM
Attachments: [ERM_Eastgate Pwky and Dixie Rd WTFN4030.pdf](#)
[WFP Stage 2 in Disturbed areas.pdf](#)

From: Brenda Kennett [<mailto:b.kennett@pastrecovery.com>]
Sent: Friday, June 21, 2019 9:09 AM
To: b.kennett@pastrecovery.com
Cc: 'Daniel Walker' <Daniel.Walker@erm.com>; 'Jenna Down' <Jenna.Down@erm.com>; 'Lisa Merritt' <LMerritt@asiheritage.ca>
Subject: WFP Stage 2 Field Testing WTFN4030

Good morning,

As we work through and up-date protocols for the Stage 2 field program we are attempting to respond to your requests for timely documentation related to fieldwork. Going forward, Past Recovery will aim to provide your offices with information in support of fieldwork discussions, decisions and progress at regular intervals. While we develop a more comprehensive reporting protocol, we wanted to address specific issues related WTFN4030 that arose this week.

On the WFP project, we have many locations where extensive areas of disturbance and/or deep fill are presenting challenges for the Stage 2 field testing program as standard shovel test pits on a 5 m grid is not an effective or appropriate assessment methodology. As such, we have prepared a general methodology for how we propose to test these areas (WFP Stage 2 in Disturbed areas – attached). This protocol is in compliance with the MTCS Standards and Guidelines (2011).

With specific reference to WTFN4030, where the ASI crew was working on June 19, a more detailed review of background information has been prepared (ERM_Eastgate Pkwy and Dixie Rd WTFN4030 - attached) in support of the Stage 2 testing methodology for this parcel. We hope that this document addresses any concerns raised in the field on Wednesday and will permit the testing of this parcel to proceed accordingly.

If there are any questions or comments related to either the general methodology or the specific information for WTFN4030, please do not hesitate to contact me.

We join you in recognizing and celebrating National Indigenous Peoples Day today!

With thanks,

Brenda

Brenda Kennett, M.A.
Principal
Past Recovery Archaeological Services Inc.

99C Dufferin Street
Perth, ON K7H 3A5

Phone: 613-267-7028

Mobile : 613-331-2544

Email: b.kennett@pastrecovery.com

From: [Williams, Kelly /C](mailto:Williams_Kelly_C)
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: WFP Stage 2 Field Testing WTFN4030
Date: Thursday, July 04, 2019 11:19:45 AM

From: Maxime Picard <maxime.picard@cnhw.qc.ca>
Sent: Tuesday, June 25, 2019 11:02 AM
To: Brenda Kennett <b.kennett@pastrecovery.com>
Cc: Daniel Walker <Daniel.Walker@erm.com>; Jenna Down <Jenna.Down@erm.com>; Lisa Merritt <LMerritt@asiheritage.ca>
Subject: RE: WFP Stage 2 Field Testing WTFN4030

Many thanks Brenda.

We are comfortable with this approach.

We appreciate your great work and efforts in this project.

Have a good day,

Maxime

De : Brenda Kennett [<mailto:b.kennett@pastrecovery.com>]
Envoyé : 21 juin 2019 09:09
À : b.kennett@pastrecovery.com <<mailto:b.kennett@pastrecovery.com>>
Cc : 'Daniel Walker'; 'Jenna Down'; 'Lisa Merritt'
Objet : WFP Stage 2 Field Testing WTFN4030

Good morning,

As we work through and up-date protocols for the Stage 2 field program we are attempting to respond to your requests for timely documentation related to fieldwork. Going forward, Past Recovery will aim to provide your offices with information in support of fieldwork discussions, decisions and progress at regular intervals. While we develop a more comprehensive reporting protocol, we wanted to address specific issues related WTFN4030 that arose this week.

On the WFP project, we have many locations where extensive areas of disturbance and/or deep fill are presenting challenges for the Stage 2 field testing program as standard shovel test pits on a 5 m grid is not an effective or appropriate assessment methodology. As such, we have prepared a general methodology for how we propose to test these areas (WFP Stage 2 in Disturbed areas -

ROC2756a (2 pages)



Ontario
Energy
Board | Commission
de l'énergie
de l'Ontario

BY E-MAIL

June 27, 2019

Renée Pelletier
Managing Partner
Olthuis, Kleeer, Townshend LLP
250 University Ave., 8th Floor
Toronto, ON
M5H 3E5
rpelletier@oktlaw.com

Dear Ms. Pelletier:

**Re: Request for late intervenor status
Imperial Oil Limited - Application for leave to construct the Waterdown to
Finch Project
Ontario Energy Board File Number: EB-2019-0007**

This letter is in response to the Huron-Wendat Nation's (HWN) request for intervenor status and cost award eligibility in the above-referenced application. The Ontario Energy Board (OEB) received HWN's request on June 25, 2019, after the deadline for requesting intervenor status and cost eligibility had passed.

HWN's concerns relate to potential impacts on archeological and burial sites.

Imperial Oil did not object to HWN's request.

The OEB is satisfied that HWN has a "substantial interest" in the proceeding within the meaning of Rule 22.02 of the OEB's *Rules of Practice and Procedure* and is approved as an intervenor. HWN is eligible to apply for an award of costs under the OEB's *Practice Direction on Cost Awards*. HWN is required to accept the record of the

proceeding as it currently stands and adhere to the schedule outlined in Procedural Order No. 2, dated June 10, 2019.

Yours truly,

Original signed by

Christine E. Long
Registrar
Office of the Registrar

Encl.

c: All parties in EB-2019-0007

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: EB-2019-0007 Imperial Oil Limited -
Date: Thursday, July 18, 2019 9:21:11 AM
Attachments: [image001.jpg](#)
[image002.png](#)
[image003.gif](#)
[OEB Reply_HWN Late Intervention_20190627.pdf](#)

From: Jessy Serrao [<mailto:Jessy.Serrao@oeb.ca>]

Sent: Thursday, June 27, 2019 2:23 PM

To: Malone, Jessie M <jessie.m.malone@esso.ca>; Laing, Ian R <ian.r.laing@esso.ca>; 'regulatory@hydroone.com' <regulatory@hydroone.com>; 'robert.anderson@bell.ca' <robert.anderson@bell.ca>; 'alex.greco@cme-mec.ca' <alex.greco@cme-mec.ca>; 'mathew.wilson@cme-mec.ca' <mathew.wilson@cme-mec.ca>; 'Atul.Sharma@gtaa.com' <Atul.Sharma@gtaa.com>; 'pmcmahon@uniongas.com' <pmcmahon@uniongas.com>; 'nicholas.rolfe@toronto.ca' <nicholas.rolfe@toronto.ca>; 'john.kelly@toronto.ca' <john.kelly@toronto.ca>; 'auryn.soares@mississauga.ca' <auryn.soares@mississauga.ca>; 'patrick.murphy@mississauga.ca' <patrick.murphy@mississauga.ca>; 'stayfitpaddle@gmail.com' <stayfitpaddle@gmail.com>; 'timvirtanen10@gmail.com' <timvirtanen10@gmail.com>; 'Justyna.Hidalgo@hamilton.ca' <Justyna.Hidalgo@hamilton.ca>; 'guy.paparella@hamilton.ca' <guy.paparella@hamilton.ca>; 'kfrankl@toronto.ca' <kfrankl@toronto.ca>; 'tony.oliveri@halton.ca' <tony.oliveri@halton.ca>; 'meredith.baker@halton.ca' <meredith.baker@halton.ca>; 'rachel.godley@peelregion.ca' <rachel.godley@peelregion.ca>; 'rpelletier@oktlaw.com' <rpelletier@oktlaw.com>

Subject: EB-2019-0007 Imperial Oil Limited -

All parties in EB-2019-0007

Please find attached letter issued by the OEB pertaining to the above proceeding.

Thank you,

Jessy Serrao
Case Administrator
Office of the Registrar
Ontario Energy Board
Tel: 416-440-8125
Fax: 416-440-7656
Website: www.oeb.ca
Official Correspondence: registrar@oeb.ca
E-filings: <https://pes.ontarioenergyboard.ca/eservice/>

Address:
2300 Yonge Street 27th Floor
Toronto, ON M4P 1E4

cid:image002.jpg@01D2A93B.21AEB0C0



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Ontario
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de l'Ontario

BY E-MAIL

June 27, 2019

Renée Pelletier
Managing Partner
Olthuis, Kleeer, Townshend LLP
250 University Ave., 8th Floor
Toronto, ON
M5H 3E5
rpelletier@oktlaw.com

Dear Ms. Pelletier:

**Re: Request for late intervenor status
Imperial Oil Limited - Application for leave to construct the Waterdown to
Finch Project
Ontario Energy Board File Number: EB-2019-0007**

This letter is in response to the Huron-Wendat Nation's (HWN) request for intervenor status and cost award eligibility in the above-referenced application. The Ontario Energy Board (OEB) received HWN's request on June 25, 2019, after the deadline for requesting intervenor status and cost eligibility had passed.

HWN's concerns relate to potential impacts on archeological and burial sites.

Imperial Oil did not object to HWN's request.

The OEB is satisfied that HWN has a "substantial interest" in the proceeding within the meaning of Rule 22.02 of the OEB's *Rules of Practice and Procedure* and is approved as an intervenor. HWN is eligible to apply for an award of costs under the OEB's *Practice Direction on Cost Awards*. HWN is required to accept the record of the

proceeding as it currently stands and adhere to the schedule outlined in Procedural Order No. 2, dated June 10, 2019.

Yours truly,

Original signed by

Christine E. Long
Registrar
Office of the Registrar

Encl.

c: All parties in EB-2019-0007

From: [Murillo, Breanna K /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Parsons Site - Borehole 136
Date: Thursday, July 04, 2019 11:00:31 AM
Attachments: [image001.jpg](#)
[6598 ANG. Position of the HWN regarding the archaeological and cultural heritage Ontario.pdf](#)

From: Maxime Picard [<mailto:maxime.picard@cnhw.qc.ca>]
Sent: Wednesday, July 3, 2019 11:26 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: louis lesage <louis.lesage@cnhw.qc.ca>; simon picard <simon.picard@cnhw.qc.ca>; melanievincent21@yahoo.ca; RPelletier@oktlaw.com
Subject: Parsons Site - Borehole 136

Good morning Kelly,

After the first test pit at Borehole 136, there is already a dozen of artefacts from the Parsons Site that have been recovered.

The first thought of the archaeologist and our people on site suggests that we may be in the middle of a longhouse.

It becomes clear that there will unfortunately be some impacts on our site.

Therefore we need to bring this at the Chiefs Council so that they can discuss next steps.

Please find attached the Band Council Resolution related to the protection of our sites.

The Huron-Wendat Nation insists to put on hold the archaeological fieldwork at Parsons Site until we have some more discussions with Imperial.

Please feel free to call me to discuss.

Best regards,

Maxime

From: [Murillo, Breanna K /C](mailto:Murillo.Breanna.K/C)
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: OEB
Date: Monday, July 15, 2019 2:58:01 PM

From: Maxime Picard [<mailto:maxime.picard@cnhw.qc.ca>]
Sent: Monday, July 15, 2019 11:07 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; simon picard <simon.picard@cnhw.qc.ca>; louis lesage <louis.lesage@cnhw.qc.ca>
Subject: RE: OEB

Good afternoon Kelly,

What about the week of August 05th ?

Best,

Maxime

-----Message d'origine-----

De : Williams, Kelly /C [<mailto:kelly.williams@esso.ca>] Envoyé : 15 juillet 2019 12:16 À : Maxime Picard
Cc : Malone, Jessie M; Murillo, Breanna K /C; Majdalani, Elias; simon picard; louis lesage
Objet : RE: OEB

Good morning Maxime,

I hope you had a great weekend! Do you have possible dates for our meeting in Wendake? Looking forward to hearing from you. -kelly

-----Original Message-----

From: Williams, Kelly /C
Sent: Thursday, July 11, 2019 10:17 AM
To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; simon picard <simon.picard@cnhw.qc.ca>; louis lesage <louis.lesage@cnhw.qc.ca>
Subject: RE: OEB

Good morning Maxime-Imperial is open to travel to Wendake to expedite a meeting. Please propose some dates and I will assemble the team accordingly. Thanks! -kelly

-----Original Message-----

From: Maxime Picard [<mailto:maxime.picard@cnhw.qc.ca>]
Sent: Thursday, July 11, 2019 9:55 AM

Mississaugas of the Credit First Nation (MCFN)

From: [Williams, Kelly /C](mailto:Williams_Kelly_C@imperial-isometrix.com)
To: imperial-isometrix@national.ca
Subject: FW: Waterdown-Finch Project-Imperial Oil Limited
Date: Friday, February 8, 2019 9:41:01 AM

From: Williams, Kelly /C
Sent: Friday, February 8, 2019 11:34 AM
To: 'Fawn Sault' <Fawn.Sault@mncfn.ca>
Cc: Megan DeVries <megan.devries@mncfn.ca>; Joelle Williams <joelle.williams@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: Waterdown-Finch Project-Imperial Oil Limited

Good morning Fawn,

Earlier in the week I sent your team a link to the draft Environmental Report for the Waterdown-Finch project. Let me know if you have any issues with accessing this file. I will be at the Mississaugas of the Credit First Nation on Wednesday February 13, and will deliver a hard copy of the report to your office.

Imperial is prepared to offer reasonable funding for costs associated with reviewing the report. The report will be part of the Leave to Construct application which is targeted for submission to the OEB on February 22. You are welcomed to send your comments to us directly.

The team is working on plans and logistics for 2019 archeology field work. We will update Megan and Joelle as soon as possible so you may allocate your resources as necessary. The Credit River Valley project is also scheduled to begin shortly, and I will let you know as soon as I have confirmation of a start date.

If you have any questions, let me know.

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Williams, Kelly /C](mailto:Williams_Kelly/C)
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Imperial EA report
Date: Monday, April 22, 2019 8:32:49 AM

From: Malone, Jessie M [<mailto:jessie.m.malone@esso.ca>]
Sent: Thursday, February 21, 2019 4:53 PM
To: Caron Smith
Cc: Mark LaForme; Williams, Kelly /C; Megan DeVries; Fawn Sault
Subject: RE: Imperial EA report

Hi Caron,

Appreciate your time in reviewing the Environmental Report. I will review your questions below and look to get back to you in the next week or so. If you'd like, I'd be happy to set up a phone call or in-person meeting to discuss further.

Thanks,

Jessie Malone, P.Eng
Environmental and Regulatory Advisor
Safety Security Health and Environment, Imperial
505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194
jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491
imperialoil.ca | [Twitter](#) | [YouTube](#)

From: Caron Smith [<mailto:Caron.Smith@mncfn.ca>]
Sent: Thursday, February 21, 2019 1:51 PM
To: Malone, Jessie M <jessie.m.malone@esso.ca>
Cc: Mark LaForme <Mark.LaForme@mncfn.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>; Fawn Sault <Fawn.Sault@mncfn.ca>
Subject: RE: Imperial EA report

Hi Jessie ... about the Imperial Oil Environmental report (ER) ...

The EA report describes actions taken to date to confirm the location or route for the pipeline & related construction. It will form part of Imperial Oil's Leave to Construct (LTC) application.

Here are my preliminary questions ...

Are there any pipeline replacements along the route?

Where the alternative routes look at and compared to preferred?

How will the cumulative impacts to SAR be mitigated?

Were Source water protection plans used in the ER assessment? If so, how?

How is the Credit River & alignment of the line to accommodate the Metrolinx Finch West LRT being dealt with since it is not part of this ER? Will there be opportunities for traditional harvesting if required? Is it possible to have a look at the EPP/EMP's? Thanks for your feedback.

Caron Smith, BES
Environmental & Regulatory Advisor
Department of Consultation & Accommodation
Mississaugas of the Credit First Nation
4065 Hwy 6
Hagersville, ON
N0A1H0
Caron.Smith@mncfn.ca
Tel: 905-768-4260
Fax: 905-768-9751
Cell: 905-979-3862
Web: <http://www.mncfn.ca>
Facebook: Mississaugas of the New Credit First Nation

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-----Original Message-----

From: Williams, Kelly /C [<mailto:kelly.williams@esso.ca>]
Sent: Wednesday, February 13, 2019 10:21 AM
To: Caron Smith
Cc: Mark LaForme; Malone, Jessie M
Subject: RE: Imperial EA report

Hi Caron-Thank you for your response. If you have any technical questions on the report, you can send to Jessie Malone. She is the Environmental and Regulatory Advisor on the project. I have cc'd her on this email.

What is the funding request for the review? I will send to the project manager and upon approval an invoice can be sent to ERM. I will drop off a hard copy of the report to the DOCA office tomorrow. Hopefully road conditions will be improved.

Best,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell

-----Original Message-----

From: Caron Smith [<mailto:Caron.Smith@mncfn.ca>]
Sent: Wednesday, February 13, 2019 9:00 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Mark LaForme <Mark.LaForme@mncfn.ca>
Subject: Imperial EA report

Hi Kelly ... I will have a look at the report next week ... who Can I call if I have questions and who should we send invoice to?

Sent from my iPhone

McArthur, Cheryl

From: Malone, Jessie M <jessie.m.malone@esso.ca>
Sent: March 12, 2019 8:26 AM
To: Caron Smith
Cc: Mark LaForme; Williams, Kelly /C; Megan DeVries; Fawn Sault; Murillo, Breanna
Subject: RE: Imperial EA report

Hi Caron,

Thanks again for taking the time to review Imperial's Environmental Report for the Waterdown to Finch project and for your preliminary questions. I have provided answers below, but as previously discussed, we are looking forward to further discussions at an in-person meeting. Should you have any further questions or clarifications in the meantime, please do not hesitate to reach out to myself or Kelly.

Are there any pipeline replacements along the route?

The Project will replace the existing transportation capacity of a 63 km segment of the Sarnia Products Pipeline (SPPL) between Imperial's Waterdown pump station and the Finch terminal. A new 12 inch pipeline will be constructed largely within existing utility corridors and adjacent to the existing SPPL. Once the replacement pipeline is constructed and safely put into service, the existing pipeline will be cleaned, deactivated and left in place in accordance with all relevant provincial and federal safety and technical requirements. The Credit River Valley and Metrolinx LRT projects are discussed further below.

Were the alternative routes looked at and compared to preferred?

Yes, alternative routes were evaluated in the Environmental Report (refer to Environmental Report Section 2.6). Because the project will be sited within an existing Imperial easement from Kilometer Post (KP) 0 to KP 18.8, an alternative route was considered only within the urban area from KP 18.8 to KP 62.5 (refer to Environmental Report Figure 2.6-1). This alternative route underwent review, but was deemed not feasible because, in comparison to the proposed project route, the alternative route:

- is more than 14 km longer;
- crosses nearly two times as many watercourses;
- crosses three times as many wetlands;
- crosses an additional urban river park;
- crosses five more railroads;
- passes within 100 m of twice as many groundwater supply wells;
- has 450 percent more wildlife species of conservation concern records within 1 km; and
- crosses two additional conservation areas.

How will the cumulative impacts to SAR be mitigated?

Cumulative effects on Species at Risk (SAR) will largely be avoided by:

- routing the pipeline through existing right-of-way (i.e., Imperial's existing pipeline easement and Hydro One's Networks Inc. transmission line corridor)
- installing the pipeline using trenchless methods (e.g., Horizontal Directional Drilling) through SAR regulated habitat where possible
- timing construction within SAR regulated habitat outside of Restricted Activity Periods where possible

For more detail, refer to Environmental Report Table 5.3-5 for Imperial's mitigation commitments to avoid or reduce effects on SAR.

Were Source water protection plans used in the ER assessment? If so, how?

Yes, source water protection plans (SPP) were considered in Environmental Report Section 4.2.3, Section 5.2.3 and Appendix D.

Spatial data was incorporated into project mapping to understand how the project interacts with SPP areas. It was determined that SPP components in close proximity to the project include wellhead protection areas, vulnerable aquifers, recharge areas and event-based areas.

An Environmental Protection Plan will be prepared and implemented during construction to protect these areas and an Emergency Response Plan is currently in place and will continue to be in place during pipeline operations in the unlikely event of a pipeline release/failure.

How is the Credit River & alignment of the line to accommodate the Metrolinx Finch West LRT being dealt with since it is not part of this ER?

Construction of Imperial's Credit River Valley Project is scheduled to begin in early 2019. Due to the timing of this project, it was subject to separate regulatory review and approval. The project has received a new easement and a temporary land use agreement from Infrastructure Ontario, a work permit from the Credit Valley Conservation Authority, a park access permit from the City of Mississauga and archaeology approval from the Ministry of Tourism, Culture and Sport. While the Credit River project did not receive formal delegation of Duty to Consult from the Ministry of Energy, Northern Development and Mines, it has engaged with First Nations in participating as monitors in the field program in support of the Stage 2 Archaeology Assessment.

The Metrolinx Finch West LRT project is currently being completed. In order to accommodate this project, Imperial was required to re-align the segment of the SPPL which crosses the LRT. Imperial obtained a licence for temporary land use on lands owned by Infrastructure Ontario and managed by Hydro One Networks Inc. in order to support this work. The new segment of the pipeline was tied in and brought into service the week of February 25, 2019.

Will there be opportunities for traditional harvesting if required?

Yes, Imperial is open to discussing opportunities for traditional harvesting and identifying how Imperial can support MCFN in facilitating opportunities for traditional harvesting prior to construction.

Is it possible to have a look at the EPP/EMP's?

Yes, once prepared, Imperial can provide MCFN with the Environmental Protection Plan and Environmental Management Plans to be implemented during construction. These will be prepared and available for review in Q4 2019, prior to construction.

Regards,

Jessie Malone, P.Eng

Environmental and Regulatory Advisor

Safety Security Health and Environment, Imperial
505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194
jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491
imperialoil.ca | [Twitter](#) | [YouTube](#)

From: Caron Smith [<mailto:Caron.Smith@mncfn.ca>]

Sent: Friday, February 22, 2019 6:40 AM

To: Malone, Jessie M <jessie.m.malone@esso.ca>

Cc: Mark LaForme <Mark.LaForme@mncfn.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>; Fawn Sault <Fawn.Sault@mncfn.ca>

Subject: RE: Imperial EA report

Good Morning Jessie ... thank you for your feedback.

It would be great to set up a face to face meeting with our DOCA team.

Please coordinate this with Fawn.



ROC2034a Letter (3 pages)

March 19, 2019

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
kelly.williams@esso.ca

Dear Ms. Williams:

Re: Concerns re archaeological work Waterdown to Finch Project and impact on rights of Mississaugas of the Credit

I am writing to raise serious concerns about the unilateral decision of Imperial Oil to dramatically speed up the Stage 2 archaeological assessment for the Waterdown to Finch Project without any consultation with the Mississaugas of the Credit First Nation (MCFN).

According to your email, dated March 15, 2019, Imperial Oil has decided to dramatically increase the pace of the Stage 2 archaeological work, retaining a crew of 40 people to conduct the work commencing on April 2 working in two teams shifts through weekends and statutory holidays.

While we have endeavoured to have a good working relationship with Imperial Oil on this file, this hasty approach to the remaining archaeological work threatens the integrity of the archaeological process. Specifically, we are concerned because of the:

- **Lack of adequate notice:** Given major change in the scope of work, notifying us only two weeks in advance and without prior consultation is completely inadequate for MCFN to adjust to the change and to arrange for monitors for the revised scope of the work. If Imperial Oil had raised this issue with us in February, we might have had enough time to adjust. Two weeks is however simply not enough time.



- **Lack of consideration of MCFN needs and capacity:** Imperial Oil did not consult us in any way prior to making this decision. Imperial Oil did not give any consideration to MCFN's capacity to assemble and provide monitors in the much larger number that will be required and on the accelerated schedule. In addition to the difficulty simply finding enough monitors to do this work, Imperial Oil's approach assumes that MCFN has no other commitments and that we can simply turn on a dime to meet Imperial Oil's new direction. This is not the conduct we expect from a partner and someone intent on making sure the legal obligations to MCFN are met.
- **Adequacy of archaeological training for team:** It is difficult to see how Imperial Oil will be able to guarantee that the 40 people now involved in the Stage 2 process will have the proper archaeological training. Proper Stage 2 fieldwork cannot be carried out by a large field crew with insufficient oversight. Please provide information on the ratio of field directors to field technicians. We also note that lack of training for the crews will mean an extra burden on the First Nation monitors.
- **Unsuitable weather conditions:** While the email suggests that work will be subject to weather delays, Imperial Oil is planning on proceeding on April 2 when there is likely to still be snow on the ground. Muddy or snowy conditions are not appropriate conditions for conducting archaeological work.

While we completely understand that sometimes business imperatives demand quick action, this cannot mean that MCFN's interests are ignored, especially when the necessity is created by Imperial Oil's own failure to adequately plan for the requirements of the project.

Our overall concern is that this rushed approach significantly increases the chance of poor archaeological work and that something will be missed at the Stage 2 level. This change is especially disappointing given that Megan DeVries from our office raised concerns throughout 2018 about the inadequate size of the team doing the archaeological work. It appears that now that Imperial Oil has realized that a larger team is necessary, it is attempting to fix the problem with a last minute rush to the finish line.

Aside from the physical Stage 2 work, MCFN must also be given adequate time to review the Stage 2 report prior to any Stage 3 or Stage 4 work being done. It is simply not possible for MCFN to be meaningfully consulted and accommodated in this process if we are only given a day or two to review the Stage 2 report. It is imperative that we be given adequate time to review the Stage 2 findings, and there be sufficient time for our comments and concerns to be addressed *before* any Stage 3 or Stage 4 work takes place.



Finally, we request that MCFN's template for FLR participation be used to as the means of an agreement between Imperial Oil and MCFN about FLR participation. We have used this template many times with different proponents, and Imperial Oil is free to have its legal counsel review the document. We will circulate the template to you shortly.

We hope that the lack of consultation with MCFN on this issue is merely an oversight that can be remedied quickly. We look forward to hearing from you.

Sincerely,



Mark LaForme
Director
MCFN-DOCA

cc. Megan DeVries, Archaeological Operations Supervisor, MCFN-DOCA
Matt McPherson, OKT LLP, legal counsel MCFN



Imperial Waterdown to Finch Pipeline Replacement Project March 29, 2019 10:00 am MCFN DOCA Office Meeting with MCFN DOCA Summary	
Participants	
<i>MCFN DOCA</i> <ul style="list-style-type: none"> • Megan Devries, Archaeologist • Fawn Sault, Consultation Manager • Peter Epler, Archaeologist • Joelle Williams, Environmental and Archaeology Assistant 	<i>Imperial</i> <ul style="list-style-type: none"> • Kelly Williams, Imperial Community Relations Officer • Curtis Campbell, ERM • Jenna Down, ERM Archaeologist • Brenda Kennett, Past Recovery Archaeologist • Lisa Merritt, ASI Archaeologist • Jessie Malone, Imperial Regulatory Advisor (phone)
Objective(s)	
<ul style="list-style-type: none"> • To discuss questions and issues outlined in MCFN's March 19, 2019 letter to Imperial related to the archaeology program for the project 	
Topic	Discussion
Introductions	<ul style="list-style-type: none"> • Meeting participants introduced themselves and provided background on their roles.
Training credentials for archaeology field crew	<ul style="list-style-type: none"> • ERM with Past Recovery and ASI provided the credentials and training for the field crew. <ul style="list-style-type: none"> • 4 Field Directors (2 Past Recovery and 2 ASI Heritage) <ul style="list-style-type: none"> ○ have Applied Research Licence ○ have a degree in anthropology, archaeology or related discipline ○ are experienced in conducting Stage 1-4 archaeological assessments • 3 Field Assistants (two of which are qualified to be Field Director alternates) <ul style="list-style-type: none"> ○ two with Applied Research Licences, one with Professional Licence • 18 Archaeological Services Inc. (ASI Heritage) Field Technicians <ul style="list-style-type: none"> ○ all have completed, or are in the process of completing, a degree in anthropology, archaeology or another related discipline ○ all will complete an internal training process • 14 Past Recovery Field Technicians <ul style="list-style-type: none"> ○ all have completed, or are in the process of completing, a degree in anthropology, archaeology or another related discipline ○ 13 have previous experience in the field, 1 has Ontario field school experience. • The ratio of staff qualified as field directors to technicians is 1:4, with the ratio of staff designated as field directors for the program to technicians being 1:19. Past Recovery staff will be making all field decisions. MCFN stated that the education and credentials are fine; however, field experience is of great importance. ERM, Past Recovery and ASI staff agreed and discuss the team's field experience.
Schedule and conditions for	<ul style="list-style-type: none"> • The Stage 2 field program will start in the east and move west – this strategy was developed to consider more favorable weather and soil conditions in Toronto

<p>Stage 2 program</p>	<p>(east) in early April and move west as temperatures rise. Weather (along with locates and permissions) are factors in potentially delaying the Stage 2 field program; the program will not begin if conditions are not appropriate.</p> <ul style="list-style-type: none"> • MCFN sees many challenges with the schedule as presented. MCFN emphasized that FLRs are empowered to provide input on state of conditions for testing and pedestrian survey. There were no issues in the field last season. Conversations in the field about conditions were productive. Should there be any escalated issues, Peter Epler is the point of communication. • Topics from last season: <ul style="list-style-type: none"> • Troweling rather than shovel testing will be used in sensitive areas only. • Utility locates/disturbed areas - MCFN indicated that they do not believe archaeological potential is eliminated and areas should be flagged. Imperial negotiates access and is required to follow the conditions of the allowance. Safety is always the priority in these cases. MCFN would like a thorough understanding of any constraints. • <i>Imperial to inform MCFN of reasoning for not testing in the utility locates/disturbed areas regions, when situation arises</i>
<p>Review of reports for Stage 2/3</p>	<ul style="list-style-type: none"> • Imperial will be drafting the Stage 2 report concurrent with Stage 2 field program. MCFN will review draft summaries and provide feedback within an agreed upon timeline. When Imperial receives MCFN Stage 2 report review comments and concerns, Imperial will respond in a timely manner. <i>Imperial and MCFN to discuss appropriate timelines for report reviews</i> • MCFN requested that Imperial provide site-specific summaries for all sites, not only sites flagged for Stage 3 assessment since MCFN may have a different opinion on what requires a Stage 3 evaluation. <i>Imperial to provide information regarding site-specific Stage 3 field work plans to MCFN as early as possible.</i> It was noted that there are a few site-specific Stage 3 plans based on field work completed in 2018 that will be provided to MCFN for review. • MCFN wishes to review Stage 3 plans for Euro-Canadian sites and in Stage 4 for Indigenous sites particularly. • MCFN acknowledges Imperial's commitment to avoidance and non-disturbance; however, HDD is not a preferred method. <i>Imperial and MCFN to discuss HDD further, including for Parson's Site and Lake Medad</i>
<p>Logistics/Communication of field concerns to Imperial</p>	<ul style="list-style-type: none"> • ERM will be in contact with MCFN (Joelle Williams or Megan Devries) to coordinate FLRs, which may be different individuals each day. • Once the confirmed schedule is developed, ERM will identify one or two central meeting locations for FLRs and staff, likely a Tim Hortons or hotel parking lot. • Also, once parking options are confirmed, ERM will provide that information to FLRs, as appropriate. Car-pooling is encouraged. • PPE requirements: <ul style="list-style-type: none"> ○ Green hard hat - if required, ERM will have green hard hats available ○ Safety boots in good condition (certified CSA green triangle patch) ○ High visibility vest ○ Safety glasses ○ Long sleeve shirts, pants and gloves - FLRs will be sent off the field for non-compliance ○ Water and sunscreen

	<ul style="list-style-type: none"> • It must be clear to the FLRs the identity of the Field Director, so that questions and concerns are communicated to the correct person. The Field Director will identify themselves to the FLRs during the tailgate meeting each morning. • Chance find protocol is being developed and refined. Imperial to provide chance find protocol to MCFN • FLRs take field notes and provide to DOCA on regular basis. FLRs are empowered to resolve field issues; however, if an issue is not resolved it will be escalated to the DOCA archaeology staff, and ultimately to the Executive Director. Imperial understands that FLRs are responsible to escalate issues to DOCA and DOCA will address with Imperial, as appropriate and ERM will document any discussions in the field and provide to Imperial.
Other	<ul style="list-style-type: none"> • Imperial to provide Environmental Study schedule MCFN • Imperial committed to further discussion of an agreement as the proponent of the Waterdown-Finch project. Meeting scheduled for April 17. • ERM to ensure MCFN knows the size of the field crew so that they may mobilize their FLRs according to the ratios in the agreement.

Follow-ups

Item #	Follow-up	Responsible	Timeline
1	Imperial to inform MCFN of reasoning for not testing in the utility locates/disturbed areas regions, when situation arises	Kelly/ERM	Ongoing
2	Imperial and MCFN to discuss appropriate timelines for report reviews	Imperial/MCFN	ASAP
3	Imperial to provide information regarding site-specific Stage 3 field work plans to MCFN as early as possible.	Kelly/ERM	ASAP
4	Imperial and MCFN to discuss HDD further, including for Parson's Site and Lake Medad	Imperial/MCFN	ASAP
5	Imperial to provide chance find protocol to MCFN	Kelly/ERM	Fall 2019
6	Imperial to provide Environmental Study schedule MCFN	Kelly/Jessie	ASAP
7	Imperial committed to further discussion of an agreement as the proponent of the Waterdown-Finch project. Meeting scheduled for April 17.	Imperial/MCFN	April 17 - Complete
8	ERM to ensure MCFN knows the size of the field crew so that they may mobilize their FLRs according to the ratios in the agreement.	ERM/MCFN	Ongoing

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Stage 1 Archaeology Report Update-Waterdown-Finch Project -Imperial Oil Ltd
Date: Monday, April 22, 2019 8:46:18 AM

From: Williams, Kelly /C
Sent: Tuesday, April 16, 2019 3:40 PM
To: Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Fawn Sault <Fawn.Sault@mncfn.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Jenna Down <Jenna.Down@erm.com>
Subject: Stage 1 Archaeology Report Update-Waterdown-Finch Project -Imperial Oil Ltd

Hello Megan,

A Stage 1 Archaeology report for the Waterdown-Finch Project was sent to MCFN last fall for review and comment. Since that time, there have been revisions to the report to address minor changes in the project footprint. Imperial will be delivering it to the MCTS in the next few weeks. However, before this submission, Imperial is providing you with the draft report, maps and a memo summarizing the revisions made since your initial review, including revisions made to incorporate your initial feedback.

The link below will provide you with the following information.

- Revised Stage 1 report
- Memo summarizing the changes made to the Stage 1 report since the last version was reviewed
- Stage 1 archaeological assessment redacted maps

URL: <https://onyx.erm.com>

Username: 0460600

Password: 4KQ6Q2Nh

(Password is case-sensitive)

Let me know if you are unable to access these files. If you have any questions or comments on the revisions, please contact me at your earliest convenience.

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5

519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Malone, Jessie M](mailto:Malone.Jessie.M)
To: imperial-isometrix@national.ca
Cc: [Murillo, Breanna](mailto:Murillo.Breanna)
Subject: FW: Waterdown-Finch Project-Imperial Oil-Spring Stage 2 Program
Date: Tuesday, March 19, 2019 8:42:46 AM
Attachments: [2019 March 19 Letter from Mark LaForme re Stage 2 Program.pdf](#)

From: Megan DeVries [<mailto:Megan.DeVries@mncfn.ca>]
Sent: Tuesday, March 19, 2019 7:24 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Mark LaForme <Mark.LaForme@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Jenna Down <Jenna.Down@erm.com>; Fawn Sault <Fawn.Sault@mncfn.ca>; Matt McPherson <MMcPherson@oktlaw.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil-Spring Stage 2 Program

Good morning Kelly,

Please find attached a letter from Mark LaForme detailing MCFN's concerns regarding the substantial change of scope and lack of proper notice for the proposed increase to the Stage 2 archaeological assessment.

It is my hope that with this information Imperial Oil will appreciate the necessity of open, active, and ongoing consultation with the Mississaugas of the Credit First Nation, particularly when contemplating substantial strategy and scope changes to the project and its fieldwork.

Sincerely,
Megan.

Megan DeVries, M.A.
Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
Mississaugas of the Credit First Nation (MCFN)
4065 Highway 6 North, Hagersville, ON N0A 1H0
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From: Williams, Kelly /C [<mailto:kelly.williams@esso.ca>]
Sent: Friday, March 15, 2019 1:59 PM
To: Megan DeVries <Megan.DeVries@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Imperial - Dig 88 and 93
Date: Monday, April 22, 2019 8:47:08 AM
Attachments: [image001.png](#)

From: Peter Epler
Sent: Wednesday, April 17, 2019 10:43 AM
To: Megan DeVries <Megan.DeVries@mncfn.ca>
Subject: RE: Imperial - Dig 88 and 93

While Past Recovery was responsible for the discovery of these finds, it is unclear if they were aware integrity dig work was scheduled here and that a short-term avoidance and protection would be required as the integrity dig program. After touching base with Matt the site is identified as [AiGx-437 \(OP1 FS10\)](#). It consists of 3 finds (2 pottery and 1 biface) found through pedestrian survey by Past Recovery.

I have attached the map from the MTCS sites database for reference.

I will commend Imperial Oil for already having mapped in the no-go and monitoring buffer, suggesting some thought has been given to the interaction between the line replacement and integrity dig projects and the short-term protection requirements. This is confirmed as the OSD has a map uploaded by the archaeologist indicating there was a minimal short-term protection strategy recommended, but these details are not available.

Based on our experience, it seems clear that a detailed site-specific strategy for the integrity dig was not formulated incorporating the matting and fencing that would be required to accommodate the integrity work.

Wood, as the archaeologist contracted to monitor the integrity dig program, is responsible to develop and have approved a specific short-term protection strategy for any sites that they monitor if one does not previously exist. Being that these are specific sites that are being monitored, each site requires a separate Stage 3 monitoring PIF, unless otherwise specified by the MTCS. As per the MTCS S&Gs a site-specific strategy requires:

In section 7.8.5 for Partial clearance without Stage 3 being complete:

1. An appropriate Stage 3 strategy is recommended for the site(s)
2. Showing on the development map:
 - a. A no-go buffer extending 20 m beyond the site limits must be established and no work can occur within this area.
 - b. An additional 50 m monitoring buffer must be included where activities within this area must be monitored.
 - c. A **detailed avoidance strategy and written confirmation of the proponent's commitment to implementing the strategy and confirmation that ground alterations will avoid archaeological sites with outstanding concerns.**
 - d. Construction monitoring schedule and written confirmation from the proponent that a licenced archaeologist will monitor construction work within the 50 m buffer zone and has the power to stop construction if there is a concern for impact to an archaeological site
 - e. Timeline for completing remaining work.

And section 4.1.1 for Stage 4 avoidance and protection if grading or soil disturbance will extend to

edge of area to be avoided:

1. **Erect a temporary barrier** around the area to be avoided.
2. Issue “no go” instructions to all on-site construction crews, engineers, etc, that are involved in day to day decisions
3. **Show location of the area to be avoided on all contract drawings. Include explicit instructions or labelling to avoid that area.**

Again based on our experience with the Wood archaeologist on site, we are not aware of a developed Stage 3 avoidance and protection strategy for this site including the above requirements. The strategy being used was developed in cooperation of the Indigenous communities and Somerville, with the Wood archaeologist only passively agreeing to what was being developed to meet these above requirements.

From: Megan DeVries <Megan.DeVries@mncfn.ca>

Sent: Tuesday, April 16, 2019 4:06 PM

To: Peter Epler <Peter.Epler@mncfn.ca>

Subject: FW: Imperial - Dig 88 and 93

From: Hellinga, Nathan [<mailto:nathan.hellinga@woodplc.com>]

Sent: Thursday, April 11, 2019 10:54 AM

To: Megan DeVries <Megan.DeVries@mncfn.ca>

Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; karin.a.hirooka@esso.ca; kevin.d.flinkman@esso.ca

Subject: Imperial - Dig 88 and 93

Megan,

Last year when we performed the Stage 1 & 2 assessments we found artifacts near Dig 88 and Dig 93 (Dig 93 find was through ERM / Past Recovery). Both site have monitoring recommended during placement of protective matting / excavation. As previously discussed, we would like MCFN to take part in this monitoring.

It appears that our agreement from last year (attached) should still be valid for these dig locations. Can you please confirm that MCFN is okay with providing monitors for these two dig sites under our previous agreement?

Respectfully,

Nathan Hellinga, B.Sc., CAN-CISEC, CPESC
Project Manager; Habitat Restoration Specialist

McArthur, Cheryl

From: Malone, Jessie M <jessie.m.malone@esso.ca>
Sent: April 17, 2019 6:36 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Imperial - Dig 88 and 93
Attachments: 20190416_200911115_iOS.jpg; OP1FS10.jpg; Dig 93 Strategy.pdf

From: Megan DeVries [mailto:Megan.DeVries@mncfn.ca]
Sent: Wednesday, April 17, 2019 2:01 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Fawn Sault <Fawn.Sault@mncfn.ca>; Peter Epler <Peter.Epler@mncfn.ca>
Subject: FW: Imperial - Dig 88 and 93

Good afternoon Kelly,

Thanks to you and Jessie for taking the time to meet with our DOCA team today. One of the identified action items was that I would follow up with you regarding our concerns with the handling of the archaeological site at Integrity Dig #93.

You will find an email from Peter Epler, our Field Archaeologist, below outlining some of the more technical details of the concern. But please allow me to provide a summary and recap.

Wood conducted a Stage 2 assessment of the footprint for Integrity Dig #93. Afterwards, Past Recovery conducted a Stage 2 assessment of this same location as part of the Waterdown to Finch Replacement project. Past Recovery identified an archaeological site (consisting of two ceramic pieces and one biface) in this location. It is unclear if the area surveyed by Past Recovery overlaps with the area surveyed by Wood. This is information which we still require from Wood, as we have the map of Past Recovery's study area.

Fortunately, the archaeological site information was provided to Imperial Oil and as a result was noted prior to the commencement of the integrity dig. Wood, as the licensed archaeologist in charge of the monitoring of the site during the integrity dig, is responsible for ensuring that a proper short-term protection strategy is in place and that a PIF [project information form] is taken out for this activity. We are unaware if a proper short-term protection strategy was developed and enacted by Wood prior to the commencement of construction. In brief, a proper strategy would have included the following which to our knowledge is absent:

1. A **detailed** avoidance and protection strategy, not simply the notation of the site, protection buffer, and monitoring zone on the construction maps.
2. Written confirmation from the proponent committing to implement the strategy and avoid the archaeological site.
3. A visible temporary buffer erected around the area to be avoided.
4. Explicit instructions and labelling on maps and drawings provided to the contractor regarding the protection strategy and no-go areas.

As discussed in our meeting, the avoidance and protection strategy and the obtaining of partial clearance for the remainder of the worksite of Dig #93 should be obtain in advance of any on-the-ground activity, developed in consultation with the Nation, and approved by the Ministry of Tourism, Culture, and Sport. We have no evidence that this was done.

Our experience in the field is what raises this concern from problematic to alarming. It was our experience that the archaeologist on site deployed by Wood made no proactive effort to address the lack of protection strategy or develop a new one on the ground. It was our FLR, and the thankfully helpful and willing personnel of Somerville, who worked cooperatively to develop a strategy which would allow for the protection of the site and for the commencement of ground-disturbing activities. Although rig matting was arranged, there was no communication from Wood as to where they should be placed, and it was our FLR and Somerville who strategized their placement to allow for both goals to be achieved. It was our FLR who insisted that a visual marker be erected to delineate the no-go zone. The Wood archaeologist passively agreed to the proposals, when this discussion should have been their priority. MCFN is very disappointed in our experience with Wood as the licensed archaeologist with the responsibility to ensure the protection of the archaeological site for this integrity dig. This is a stark reminder of why the presence of the FLR is so very necessary and why MCFN is so insistent that, at the end of the day, it falls to us to ensure that our archaeological sites are treated with the respect and dignity they deserve. We are appreciative that Somerville was as careful and responsive as they were in this unfortunate situation as well.

Furthermore, as discussed in our meeting, this demonstrates another of the reasons MCFN holds for requesting that the FLR participation agreement be executed with the proper authority – the proponent in charge of and benefiting from the project. It is impossible for MCFN to adequately address concerns or inadequacies in the contractor's work when we are subcontracted by them and dependent upon them to be paid for our participation. Our relationship is and should be with the proponent, Imperial Oil, and that should be reflected in our agreements related to the project.

For reference, the attached images depict the area surveyed by Past Recovery (OP1FS10.jpg), the mapping that was available to Somerville when they arrived to begin work (20190416_200911115_iOS.jpg), and the mapping that was produced following protection strategy discussions between our FLR and Somerville (Dig 93 Strategy).

Please let me know if you require any further information.

Sincerely,
Megan.

Megan DeVries, M.A.
Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
Mississaugas of the Credit First Nation (MCFN)
4065 Highway 6 North, Hagersville, ON N0A 1H0
P: 905-768-4260 | M: 289-527-2763
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From: Peter Epler
Sent: Wednesday, April 17, 2019 10:43 AM
To: Megan DeVries <Megan.DeVries@mncfn.ca>
Subject: RE: Imperial - Dig 88 and 93

While Past Recovery was responsible for the discovery of these finds, it is unclear if they were aware integrity dig work was scheduled here and that a short-term avoidance and protection would be required as the integrity dig program.

After touching base with Matt the site is identified as AiGx-437 (OP1 FS10). It consists of 3 finds (2 pottery and 1 bone) found through pedestrian survey by Past Recovery.

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I will commend Imperial Oil for already having mapped in the no-go and monitoring buffer, suggesting some thought has been given to the interaction between the line replacement and integrity dig projects and the short-term protection requirements. This is confirmed as the OSD has a map uploaded by the archaeologist indicating there was a minimal short-term protection strategy recommended, but these details are not available.

Based on our experience, it seems clear that a detailed site-specific strategy for the integrity dig was not formulated incorporating the matting and fencing that would be required to accommodate the integrity work.

Wood, as the archaeologist contracted to monitor the integrity dig program, is responsible to develop and have approved a specific short-term protection strategy for any sites that they monitor if one does not previously exist. Being that these are specific sites that are being monitored, each site requires a separate Stage 3 monitoring PIF, unless otherwise specified by the MTCS. As per the MTCS S&Gs a site-specific strategy requires:

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 - c. A **detailed** avoidance strategy and written confirmation of the proponent's commitment to implementing the strategy and confirmation that ground alterations will avoid archaeological sites with outstanding concerns.
 - d. Construction monitoring schedule and written confirmation from the proponent that a licenced archaeologist will monitor construction work within the 50 m buffer zone and has the power to stop construction if there is a concern for impact to an archaeological site
 - e. Timeline for completing remaining work.

And section 4.1.1 for Stage 4 avoidance and protection if grading or soil disturbance will extend to edge of area to be avoided:

1. **Erect a temporary barrier** around the area to be avoided.
2. Issue "no go" instructions to all on-site construction crews, engineers, etc, that are involved in day to day decisions
3. Show location of the area to be avoided on all contract drawings. **Include explicit instructions** or labelling to avoid that area.

Again based on our experience with the Wood archaeologist on site, we are not aware of a developed Stage 3 avoidance and protection strategy for this site including the above requirements. The strategy being used was developed in cooperation of the Indigenous communities and Somerville, with the Wood archaeologist only passively agreeing to what was being developed to meet these above requirements.

From: Megan DeVries <Megan.DeVries@mncfn.ca>

Sent: Tuesday, April 16, 2019 4:06 PM

To: Peter Epler <Peter.Epler@mncfn.ca>

Subject: FW: Imperial - Dig 88 and 93

From: Hellinga, Nathan [<mailto:nathan.hellinga@woodplc.com>]

Sent: Thursday, April 11, 2019 10:54 AM

To: Megan DeVries <Megan.DeVries@mncfn.ca>

Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Williams, Kelly /C

Imperial Waterdown to Finch Pipeline Replacement Project April 17, 2019 10:00am MCFN DOCA Office Meeting Summary	
Participants	
<i>MCFN DOCA</i> <ul style="list-style-type: none"> • Mark Laforme, Director • Megan Devries, Archaeologist • Fawn Sault, Consultation Manager • Peter Epler, Archaeologist • Matt McPherson, Counsel • Caron Smith, Environment & Regulatory • Hillary, Administrator 	<i>Imperial</i> <ul style="list-style-type: none"> • Kelly Williams, Community Relations Officer • Jessie Malone, Regulatory Advisor
Objective(s)	
<ul style="list-style-type: none"> • To discuss the Field Liaison Representatives Agreement and other Project information 	
Topic	Discussion
Environmental Report	<ul style="list-style-type: none"> • MCFN stated that Imperial has provided responses to MCFN’s questions on the Environmental Report. • Imperial stated that it has conducted environmental field surveys this past year, which informed the Environmental Report. The Environmental Management Plans are focused on construction methods and mitigation measures required to minimize impacts to the environment; there are no additional field surveys planned in support of this. • Imperial does not know if field monitors will be a condition of project approval. Imperial is aware of this being a condition on National Energy Board applications, but does not know if it would be a condition that the Ontario Energy Board would require. • Imperial used the source water protection mapping to inform the Environmental Report and the constraints mapping. Constraints maps inform project planning, minimize impacts of the project and support the development of mitigation plans. • <i>Imperial to confirm that recent changes to source water protection do not affect the project.</i> • MCFN stated that the project runs through traditional MCFN territory and MCFN is currently seeking rights to waterbodies. • <i>Imperial to provide watercourse crossing table developed for Conservation Authority permits to MCFN.</i>
Training	<ul style="list-style-type: none"> • MCFN would like Imperial to cover costs for training Field Liaison Representatives in pipeline Horizontal Directional Drilling (e.g., how it's done, how to monitor etc.). Also, MCFN would like DOCA staff to receive the training to help facilitate report review. MCFN has a consultant in mind to deliver the training. • <i>MCFN to provide proposal for HDD monitoring training.</i>
Regulatory Updates	<ul style="list-style-type: none"> • Imperial expects to provide the Leave to Construct application to MCFN the week of April 22.

	<ul style="list-style-type: none"> • MCFN confirmed that digital copies of the LTC application are adequate and hard copies are not necessary. • Imperial explained that there is no formal Environmental Assessment (EA) because the project is not under the NEB. The equivalent to the EA is the ER, which was submitted to the OEB. There will be a public works Class EA submitted to Infrastructure Ontario, but it is much less comprehensive than the ER and it primarily relates to the realty transaction of a new easement. • Imperial to provide a list of all regulatory permits required for the project and how these permits fit into the overall process to Caron Smith.
Credit River Valley Project - Consultation	<ul style="list-style-type: none"> • MCFN stated that it cannot accept the fact that Duty to Consult was not triggered for the Credit River Valley Project. MCFN would like to understand how the Duty to Consult decision for the Credit River Valley Project was provided to Imperial. • MCFN would like Imperial to be aware that MCFN requires consultation for any work conducted on treaty territory. • Imperial to facilitate further discussion re: Duty to Consult for Credit River Valley Project decision. • Imperial to facilitate further discussion re: MCFN's request that Imperial consult MCFN on all development in MCFN traditional territory.
Credit River Valley Project and Integrity Digs – Archaeology	<ul style="list-style-type: none"> • Imperial and MCFN will follow-up to resolve Credit River Valley archaeology matting situation being discussed with Wood currently. • Imperial and MCFN will follow-up to resolve Integrity Digs Dig 93 archaeology situation re: identification of artifacts.
Field Liaison Representative Agreement	<ul style="list-style-type: none"> • MCFN requests a FLR agreement with Imperial directly (instead of with Wood) because it is not appropriate for MCFN to be paid by Wood if they do not agree with how Wood is conducting work. Also, MCFN has concerns about being able to hold Imperial accountable, if the agreement is with Wood and not Imperial. • Imperial prefers that the agreement be between MCFN and the contractor because contractors are prime in the field and there is no Imperial supervision; there are issues with liability that would prevent Imperial from signing an agreement in this form. • Generally, Imperial is open to entering into an agreement with MCFN, but we would need our legal and contracting folks to be involved to ensure that the safety of individuals out in the field is considered and the agreement reflects this appropriately. This could potentially look like an agreement with Imperial's contractors to facilitate payment and a separate agreement or Memorandum of Understanding with Imperial to address other aspects. • Imperial will provide contact information for lawyer and then MCFN legal can reach out and start to work this. • Imperial appreciates MCFN honouring the existing agreement and accommodating Imperial' request to use this agreement until a new one can be finalized.
Other	<ul style="list-style-type: none"> • The pipeline is located within the HONI corridor from KP 18.8 to 62.5.

Follow-ups

Item #	Follow-up	Responsible	Timeline
1	<i>Imperial and MCFN to discuss appropriate timelines for report reviews</i>	Imperial/MCFN	ASAP
2	<i>Imperial to provide information regarding site-specific Stage 3 field work plans to MCFN as early as possible.</i>	Kelly/ERM	ASAP
3	<i>Imperial and MCFN to discuss HDD further, including for Parson's Site and Lake Medad</i>	Imperial/MCFN	ASAP
4	<i>Imperial to provide chance find protocol to MCFN</i>	Kelly/ERM	Fall 2019
5	<i>Imperial to provide Environmental Study schedule MCFN</i>	Kelly/Jessie	ASAP
6	<i>Imperial to confirm that recent changes to source water protection do not affect the project.</i>	Kelly/Jessie	ASAP
7	<i>Imperial to provide watercourse crossing table developed for Conservation Authority permits to MCFN.</i>	Kelly/Jessie	ASAP
8	<i>MCFN to provide proposal for HDD monitoring training.</i>	MCFN	ASAP
9	<i>Imperial to provide a list of all regulatory permits required for the project and how these permits fit into the overall process to Caron Smith.</i>	Kelly/Jessie	ASAP
10	<i>Imperial to facilitate further discussion re: Duty to Consult for Credit River Valley Project decision.</i>	Kelly	ASAP
11	<i>Imperial to facilitate further discussion re: MCFN's request that Imperial consult MCFN on all development in MCFN traditional territory.</i>	Kelly	ASAP
12	<i>Imperial and MCFN will follow-up to resolve Credit River Valley archaeology matting situation being discussed with Wood currently.</i>	Kelly/Megan	Complete
13	<i>Imperial and MCFN will follow-up to resolve Integrity Digs Dig 93 archaeology situation re: identification of artifacts.</i>	Kelly/Megan	Complete

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: April 22, 2019 8:47 AM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Imperial - Dig 88 and 93

From: Williams, Kelly /C
Sent: Thursday, April 18, 2019 10:03 AM
To: Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Fawn Sault <Fawn.Sault@mncfn.ca>; Peter Epler <Peter.Epler@mncfn.ca>
Subject: RE: Imperial - Dig 88 and 93

Good morning Megan,

Thank you for hosting the meeting at DOCA! We enjoyed meeting with the MCFN team and I think the exchange of information was another positive step in our collaboration on this project.

I appreciate you putting together the email below to follow up on our discussion yesterday. The Imperial team will be informed of these concerns. Though the Integrity Program and the CRVP are independent of the Waterdown-Finch project, there is an opportunity to increase collaboration and communication to improve the archaeology over-all.

I went to the CRVP project site yesterday. There was an impromptu meeting with monitors, project managers and myself and it was determined that mats will not be placed on untested areas, in non-emergency situations. It was suggested that the area in question be tested, and that is under consideration.

If you have any questions, let me know. I will be following up on the outstanding items from our last 2 meeting and will be sending MCFN updates and correspondence accordingly.

Have a great holiday weekend!

Sincerely,

Kelly

From: Megan DeVries [<mailto:Megan.DeVries@mncfn.ca>]
Sent: Wednesday, April 17, 2019 4:01 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Fawn Sault <Fawn.Sault@mncfn.ca>; Peter Epler <Peter.Epler@mncfn.ca>
Subject: FW: Imperial - Dig 88 and 93

Good afternoon Kelly,

Thanks to you and Jessie for taking the time to meet with our DOCA team today. One of the identified action items was that I would follow up with you regarding our concerns with the handling of the archaeological site at Integrity Dig #93.

You will find an email from Peter Epler, our Field Archaeologist, below outlining some of the more technical details of the concern. But please allow me to provide a summary and recap.

From: [Williams, Kelly /C](#)
To: [Murillo, Breanna K /C](#)
Cc: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Formal Notice-LTC Submission-Waterdown to Finch-IOL
Date: Thursday, April 25, 2019 7:27:08 AM
Attachments: [Notice_IOL_201904101.pdf](#)

From: Williams, Kelly /C

Sent: Thursday, April 25, 2019 9:27 AM

To: Mark LaForme <Mark.LaForme@mncfn.ca>

Cc: 'Megan DeVries' <Megan.DeVries@mncfn.ca>; Caron Smith <Caron.Smith@mncfn.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Fawn Sault <Fawn.Sault@mncfn.ca>

Subject: Formal Notice-LTC Submission-Waterdown to Finch-IOL

Dear Mark,

Please find enclosed a Notice of Hearing issued by the Ontario Energy Board (OEB) to consider Imperial's Leave to Construct application filing for the Waterdown to Finch Project. On February 25, 2019, the Project submitted a Leave to Construct application to the OEB, the province's energy regulator, who is responsible for ensuring compliance with the province's environmental guidelines for the location, construction and operation of hydrocarbon pipelines and facilities in Ontario. Imperial's application reflects the robust environmental planning, stakeholder engagement, cultural, social and heritage assessment process that has taken place since the Project launched in May 2018.

The Project will replace a 63-kilometre segment of the Sarnia Products Pipeline between Waterdown and North York. Operating safely in the region for many years, this pipeline provides refined products used by businesses and households across the Greater Toronto and Hamilton Area, including a significant portion of jet fuel at Toronto Pearson International Airport. Subject to provincial regulatory review and receipt of all permits, Imperial expects to start construction on the replacement project by the end of 2019.

Imperial is committed to providing timely and accessible information about the Project and its regulatory review. In accordance with OEB requirements, the Waterdown to Finch Project application and evidence for the Leave to Construct and the Environmental Report will be available for download from Imperial's project website at imperialoil.ca/waterdowntofinch as well as on the OEB's regulatory applications page at oeb.ca/industry/applications-oeb.

For more information regarding Imperial's Project application, the public hearing process and how to file a letter or become an intervenor, interested parties may also reference the file number **EB-2019-0007** on the OEB website: www.oeb.ca/participate. A hard copy of the application will be available for review at Imperial's head office in Calgary, Alberta as well as its Finch Terminal in North York, Ontario.

Calgary Office Imperial Oil Limited 505 Quarry Park Blvd Calgary, Alberta T2C 5N1	Finch Terminal Imperial Oil Limited 1150 Finch Ave W North York, Ontario M3J 2E4
--	---

This information will also be sent to the Mississaugas of the Credit Chief and Council and I will deliver a hardcopy of the application to your office. Should you have any questions about the Project, please do not hesitate to contact me.

Sincerely,

Kelly
Kelly Williams
Community Relations Officer
Imperial's Sarnia Products Pipeline, Waterdown to Finch Project
602 Christina Street
Sarnia ON N7T 7M5
Cell 519 328 7405
imperialoil.ca Twitter YouTube

Imperial Oil Limited has applied to the Ontario Energy Board for approval to construct 63 kilometres of pipeline and associated infrastructure to transport refined oil products from its facility in the City of Hamilton to its facility in the City of Toronto.

Learn more. Have your say.

If approved, the proposed pipeline would replace existing transportation capabilities of refined oil products (gasoline, diesel fuel and jet fuel) between Imperial Oil Limited's Waterdown Pump Station in the City of Hamilton to its Finch Terminal in North York in the City of Toronto. The pipeline and associated infrastructure are located in the City of Hamilton, the City of Burlington, the Town of Milton, the Town of Oakville, the City of Mississauga, and the City of Toronto, as shown in the map below.

Imperial Oil Limited is also asking the Ontario Energy Board to approve the form of agreement it offers to landowners to use their land for location and construction of the proposed pipeline.

on the case. We will also hear questions and arguments from individual consumers, municipalities and others whose interests would be affected. At the end of this hearing, the OEB will decide whether to approve the application.

As part of its review of this application, the OEB will assess Imperial Oil Limited's compliance with the OEB's Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario.

The OEB advises Indigenous communities that the OEB's process for this application may serve as a component of the Crown's duty to consult for this project.

The OEB is an independent and impartial public agency. We make decisions that serve the public interest. Our goal is to promote a financially viable and efficient energy sector that provides you with reliable energy services at a reasonable cost.

BE INFORMED AND HAVE YOUR SAY

You have the right to information regarding this application and to be involved in the process.

- You can review the application filed by Imperial Oil Limited on the OEB's website now.
- You can file a letter with your comments, which will be considered during the hearing.
- You can become an active participant (called an intervenor). Apply by **May 6, 2019** or the hearing will go ahead without you and you will not receive any further notice of the proceeding.
- At the end of the process, you can review the OEB's decision and its reasons on our website.

LEARN MORE

Our file number for this case is **EB-2019-0007**. To learn more about this hearing, find instructions on how to file letters or become an intervenor, or to access any document related to this case, please enter the file number **EB-2019-0007** from the list on the OEB website: <http://www.oeb.ca/noticeltc>. You can also phone our Consumer Relations Centre at 1-877-632-2727 with any questions.

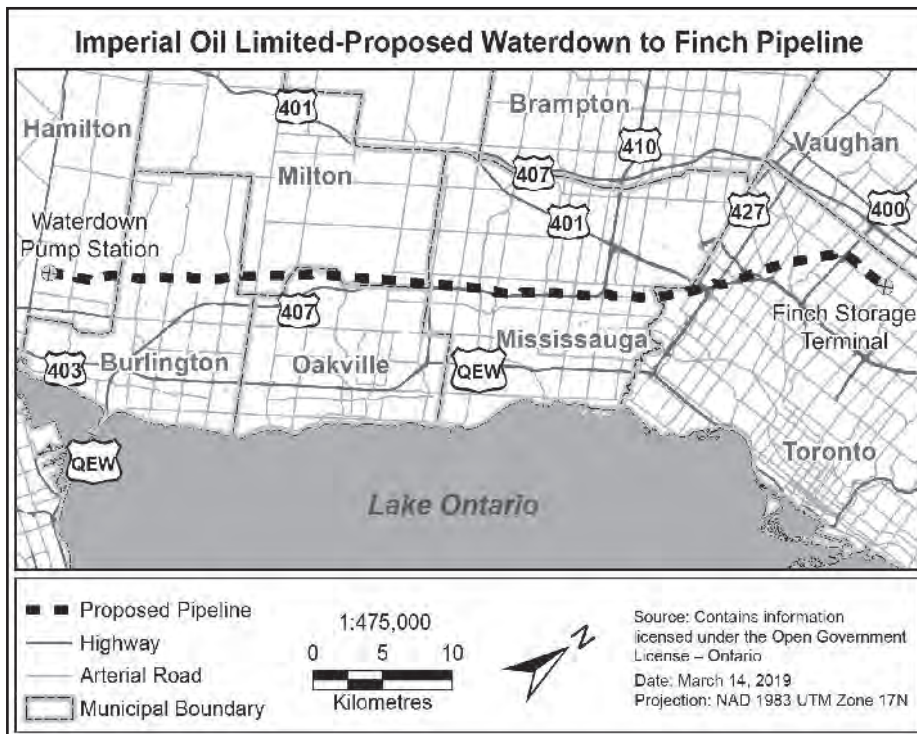
ORAL VS. WRITTEN HEARINGS

There are two types of OEB hearings – oral and written. The OEB intends to proceed with this application by way of a written hearing. If you think an oral hearing is needed, you can write to the OEB to explain why by **May 6, 2019**.

PRIVACY

If you write a letter of comment, your name and the content of your letter will be put on the public record and the OEB website. However, your personal telephone number, home address and email address will be removed. If you are a business, all your information will remain public. If you apply to become an intervenor, all information will be public.

This hearing will be held under sections 90(1) and 97 of the Ontario Energy Board Act, 1998, S.O. 1998, c.15 (Schedule B).



THE ONTARIO ENERGY BOARD IS HOLDING A PUBLIC HEARING

The Ontario Energy Board (OEB) will hold a public hearing to consider the application filed by Imperial Oil Limited. During the hearing, we will question Imperial Oil Limited



Ontario

Ontario Energy Board / Commission de l'énergie de l'Ontario

From: [Williams, Kelly /C](mailto:Williams_Kelly/C)
To: Projectmail - Wood E&I Calgary - Consultation
Cc: [Murillo, Breanna K /C](mailto:Murillo_Breanna K /C)
Subject: FW: Imperial Oil - Stage 2 and FLR Scheduling
Date: Monday, May 6, 2019 8:30:56 AM

From: Megan DeVries [<mailto:Megan.DeVries@mncfn.ca>]
Sent: Friday, May 3, 2019 2:10 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Mark LaForme <Mark.LaForme@mncfn.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>
Subject: Imperial Oil - Stage 2 and FLR Scheduling

Hello Kelly,

I wanted to take the time to connect with you in advance of the full-scale kick-off of the Waterdown to Finch Stage 2 next week. There have been a small number of issues which have been hampering our effective participation in the project and effective coordination of work in the field.

1. Improved Scheduling and Organization
 - a. MCFN appreciates the circulation of the crew scheduler by ERM. It greatly enhances our understanding of the crew deployment. However, ERM has not communicated to us when crew deployment is deviating from what is scheduled. Joelle has repeatedly had to request updated information from ERM, including the postponement and cancellation of crews. DOCA needs to be informed of the day-to-day changes to the schedule, at an appropriate time, via emails from ERM, in order to ensure that our scheduling is accurate. If we do not have this information, we will need to schedule based on the provided schedule.
 - b. DOCA requested at our meeting on March 29th that a handful of consistent meeting locations be selected for day-to-day fieldwork, from which crews can coordinate and depart for the ever-changing survey areas. It is not effective, and actually quite frustrating, to receive late-night, last-minute emails with new deployment information. This is not an unreasonable request, but to date no consistent meeting locations have been identified.
2. Crew Breakdown and Function
 - a. At our meeting on March 29th, DOCA requested information about how the multi-company crews would function on the ground. At the time of the meeting, we were informed that the specific action plan of each crew was still being developed and we would be provided with the plan prior to deployment. We still have received no communication or information on this matter. Our questions are as follows:
 - i. What are the numbers in each crew of personnel from the different firms?
 - ii. What is the confirmed ratio of field directors to field technicians to other participants (e.g. ERM)?
 - iii. What is the contact information (e.g. phone number) for the primary field director of each crew?

- iv. In what way will all three firms be interacting with one another to support effective fieldwork?
 - v. How will the crews be effectively managed to ensure a coordinated and comprehensive assessment within the study areas?
3. ERM and Past Recovery
- a. Based on the fieldwork that has been completed to date, it is DOCA's observation that the representatives from Past Recovery are not operating with the final authority in the field that they should hold as the licensees. Our FLRs have observed on a number of occasions that the Past Recovery field directors have deferred from making decisions that are necessary for them to make because of input and/or implied pressure from the ERM representatives alongside them. This is inappropriate.
 - b. For example, on April 29 Chris from ERM went to another area of the proposed pipeline requiring Stage 2 to check if the site conditions were appropriate, which is a decision that rests with the licensee or the representative of the licensee on site (i.e. the Past Recovery field directors). He did so without inviting our FLRs to accompany him and have input into that determination, which is also inappropriate.

I appreciate your attention in following up on these matters. DOCA wants to pursue a positive, productive working relationship with all parties on this massive project, but there needs to be consideration for the timely and pertinent information that DOCA needs to participate effectively.

Thank you,
Megan.

Megan DeVries, M.A.
Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
Mississaugas of the Credit First Nation (MCFN)
4065 Highway 6 North, Hagersville, ON NOA 1H0
P: 905-768-4260 | M: 289-527-2763
<http://www.mncfn.ca>

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From: [Jenna Down](#)
To: [Joelle Williams](#); [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Joanne Thomas](#); [Williams, Kelly /C](#); [Maxime Picard](#); [Megan DeVries](#); [Todd Williams](#); [Wayne Hill](#)
Cc: [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#)
Subject: RE: Archaeology- May 9
Date: Wednesday, May 8, 2019 8:55:46 AM
Attachments: [image001.jpg](#)
[image002.png](#)

Hi Joelle,

PR and ERM will be making a call at the end of the day in regards to fieldwork tomorrow. I appreciate your patience with unpredictable weather during springtime as well as coordinating the crews.

Regards,
Jenna

From: Joelle Williams <Joelle.Williams@mncfn.ca>
Sent: Wednesday, May 8, 2019 10:21 AM
To: Jenna Down <Jenna.Down@erm.com>; Consultation.calgary@woodplc.com; Dawn LaForme <dlaforme@sixnations.ca>; Joanne Thomas <jthomas@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Maxime Picard <maxime.picard@cnhw.qc.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>; Todd Williams <williams.todde@gmail.com>; Wayne Hill <tworowarchaeology@gmail.com>
Cc: Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>
Subject: RE: Archaeology- May 9

Good morning Jenna,

Please let me know, at your earliest convenience, if you plan to return to site tomorrow and what the crew numbers will be. The FLR on site today reported there was close to 30 people on site today.

Thank you,
Joelle

From: Jenna Down [<mailto:Jenna.Down@erm.com>]
Sent: Friday, May 3, 2019 7:03 PM
To: Consultation.calgary@woodplc.com; Dawn LaForme; Joanne Thomas; Joelle Williams; Williams, Kelly /C; Maxime Picard; Megan DeVries; Todd Williams; Wayne Hill
Cc: Curtis Campbell; Matthew Scoular; Mark Welsh; Daniel Walker
Subject: Archaeology- Wednesday May 8

Hello,

Moving forward, but keeping weather and saturation levels in mind, we would like to continue with one crew on Wednesday, May 8th. We will be replicating the crew size we had last week (20 archaeologists).

From: [Jenna Down](#)
To: [Wayne Hill](#)
Cc: [Williams, Andrea \(MTCS\)](#); <Katherine.Cappella@ontario.ca>; [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Joanne Thomas](#); [Williams, Kelly /C](#); [Maxime Picard](#); [Megan DeVries](#); [Todd Williams](#); [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#); [Joelle Williams](#); [Nicole Bishop](#)
Subject: RE: Archaeology- May 9
Date: Wednesday, May 8, 2019 4:40:13 PM
Attachments: [image001.jpg](#)
[image002.png](#)

Hi Wayne, thank you for your note - Imperial will be sending a response to your concern shortly.

Best,
Jenna

From: Wayne Hill <tworowarchaeology@gmail.com>
Sent: Wednesday, May 8, 2019 11:53 AM
To: Jenna Down <Jenna.Down@erm.com>
Cc: Williams, Andrea (MTCS) <Andrea.Williams@ontario.ca>; <Katherine.Cappella@ontario.ca>
<Katherine.Cappella@ontario.ca>; Consultation.calgary@woodplc.com; Dawn LaForme
<dlaforme@sixnations.ca>; Joanne Thomas <jthomas@sixnations.ca>; Williams, Kelly /C
<kelly.williams@esso.ca>; Maxime Picard <maxime.picard@cnhw.qc.ca>; Megan DeVries
<Megan.DeVries@mncfn.ca>; Todd Williams <williams.todde@gmail.com>; Curtis Campbell
<Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh
<Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>; Joelle Williams
<Joelle.Williams@mncfn.ca>; Nicole Bishop <Nicole.Bishop@erm.com>
Subject: Re: Archaeology- May 9

Hi Jenna,

Thank you the your response. Let me clarify, first of all that is minmally 25 field staff not 20 which was not indicated whatsoever in previous emails. Second of all do they have any type of Ontario archaeological experience, most importantly are they qualified for stage 2 test pitting methodology. This was also not indicated in emails about lack of experience. The HDI will request Ontario archaeological staff 2 years experience in stage 2 test methodology and as previously stated in other emails this is not a training exercise and our Haudenosaunee asserted 1701 Nanfan treaty lands nor our ancestors' archaeological heritage be succumb to subpar minimalist methods or tactics. The archaeology cannot proceed under conditions such as this and is outright wrong for Imperial Oil to force us into doing.

Wayne

On Wed, May 8, 2019 at 11:37 AM Jenna Down <Jenna.Down@erm.com> wrote:

Hi Wayne, thank you for your email. Please allow me to clarify.

Currently there are 17 Past Recovery archaeologists and 8 ASI archaeologists on site. We also have 2 ERM Field Directors - Chris Thorne and Tiffany McLellan. As it is Tiffany's first day she is shadowing Dan Walker to ensure she effectively trained on this very complex project. Cortney Blackburn is also on site with TGH (safety consultants) to ensure safety around locates as well as field personnel. Please note, all archaeologists on site are qualified to excavate and are either in

the process of completing a degree in Archaeology or are in possession of an Archaeology degree. As we have only been in the field for one short block of 6 days, and beginning our second block with unpredictable weather coupled with scheduling complexities, we appreciate your patience and understanding as we work hard to find the best solutions to meet the expectations of all First Nation communities, Imperial, UPI, archaeologists as well as the ERM team.

Thank you again and I hope I have resolved your concerns. Speak soon,
Jenna

From: Wayne Hill <tworowarchaeology@gmail.com>

Sent: Wednesday, May 8, 2019 10:47 AM

To: Jenna Down <Jenna.Down@erm.com>; Williams, Andrea (MTCS) <Andrea.Williams@ontario.ca>; <Katherine.Cappella@ontario.ca> <Katherine.Cappella@ontario.ca>

Cc: Consultation.calgary@woodplc.com; Dawn LaForme <dlaforme@sixnations.ca>; Joanne Thomas <jthomas@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Maxime Picard <maxime.picard@cnhw.qc.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>; Todd Williams <williams.todde@gmail.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>; Joelle Williams <Joelle.Williams@mncfn.ca>

Subject: Re: Archaeology- May 9

Good morning,

The HDI has also learned there is 30 field staff on site. This was not indicated in previous emails or memos provided. I respectfully ask to cease and desist archaeological excavations and furthermore the extra people are not qualified field staff lacking archaeological field experience. This is unacceptable considering the sensitivity and importance for this project since there has already been raised questions and concerns about the efficiency of stage 2 test pitting for identifying archaeological potential.

This will not used as an archaeological training exercise especially considering there has been no engagement.

Thanks Wayne,

On Wed, May 8, 2019 at 10:20 AM Joelle Williams <Joelle.Williams@mncfn.ca> wrote:

Good morning Jenna,

Please let me know, at you earliest convenience, if you plan to return to site tomorrow and what the crew numbers will be. The FLR on site today reported their was close to 30 people on site today.

Thank you,
Joelle

From: Jenna Down [mailto:Jenna.Down@erm.com]

Sent: Friday, May 3, 2019 7:03 PM

To: Consultation.calgary@woodplc.com; Dawn LaForme; Joanne Thomas ; Joelle Williams; Williams, Kelly /C; Maxime Picard ; Megan DeVries; Todd Williams ; Wayne Hill

Cc: Curtis Campbell; Matthew Scoular; Mark Welsh; Daniel Walker

Subject: Archaeology- Wednesday May 8

Hello,

From: [Jenna Down](#)
To: [Joanne Thomas](#); Joelle.Williams@mncfn.ca; [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Williams, Kelly /C](#); maxime.picard@cnhw.qc.ca; Megan.DeVries@mncfn.ca; williams.todde@gmail.com; [Wayne Hill](#)
Cc: [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#); [Nicole Bishop](#); [Williams, Kelly /C](#); [Murillo, Breanna K /C](#)
Subject: RE: Archaeology- May 9
Date: Wednesday, May 8, 2019 4:53:43 PM
Attachments: [image001.jpg](#)
[image002.png](#)

Hi Joanne, sorry for the delay and thank you for your note.

Imperial will be sending a response to your concern shortly.

Best,
Jenna

From: Joanne Thomas <jthomas@sixnations.ca>
Sent: Wednesday, May 8, 2019 11:48 AM
To: Jenna Down <Jenna.Down@erm.com>; Joelle.Williams@mncfn.ca; Consultation.calgary@woodplc.com; Dawn LaForme <dlaforme@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; maxime.picard@cnhw.qc.ca; Megan.DeVries@mncfn.ca; williams.todde@gmail.com; Wayne Hill <tworowarchaeology@gmail.com>
Cc: Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>; tworowarchaeology@gmail.com; Williams, Kelly /C <kelly.williams@esso.ca>
Subject: RE: Archaeology- May 9

Hi jenna

My monitor has just informed me of the issue of the amount of people on site and how they are inexperienced because a show and tell session was held after the tailgate meeting.

I am concerned about the ratio of field crew to my monitor. 30 to 1 is quite a difference. New credit and the HDI have their own different process of monitoring and we do not represent each other in any way.

So in the near future I will be using this site to train my new monitors one at a time along with my experienced monitor. I will ensure they have the right online safety. This issue needs to be addressed with all.

JT

Sent with BlackBerry Work
(<https://clicktime.symantec.com/3QaWhAtZhyfiJiTJZibaTcf6H2?u=www.blackberry.com>)

From: Jenna Down <Jenna.Down@erm.com>

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: May 16, 2019 7:44 AM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

From: Megan DeVries [<mailto:Megan.DeVries@mncfn.ca>]
Sent: Wednesday, May 15, 2019 4:03 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; b.kennett@pastrecovery.com; Malone, Jessie M <jessie.m.malone@esso.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>
Subject: RE: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

Hi Kelly,

We await your additional information and will reserve further comments until that time.

In the interim, can you please provide us with the letter from Brenda of Past Recovery delegating her licensee responsibility to the ASI field director?

Thank you,
Megan.

Megan DeVries, M.A.
Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
Mississaugas of the Credit First Nation (MCFN)
4065 Highway 6 North, Hagersville, ON NOA 1H0
P: 905-768-4260 | M: 289-527-2763
<http://www.mncfn.ca>

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From: Williams, Kelly /C [<mailto:kelly.williams@esso.ca>]
Sent: Wednesday, May 15, 2019 3:48 PM
To: Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; b.kennett@pastrecovery.com; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

Good afternoon Megan,

I hope you are well and are finding some time to enjoy the nicer weather. Moving forward, Past Recovery is implementing some changes to the field crew for the Stage 2 Program and has provided the following explanation. I will also be sending you Imperial's responses to your recent concerns and the March and April meeting summaries. Let me know if you have any questions on the information below. Thanks!

To date, Past Recovery and ASI archaeologists have been working together as a single crew. This single crew has allowed Past Recovery's Field Directors (and upper management) to evaluate the skills and technical expertise of ASI's Field Directors. Through assessing ASI's field Directors, Past Recovery ensures consistency in adhering to MTCS S&Gs, while including First Nation monitors and FLRs in discussions regarding appropriate fieldwork conditions, the assessment of archaeological potential, and testing methodology.

Going forward, there will be a dedicated ASI field crew, led by an ASI Field Director in addition to a dedicated Past Recovery field crew, led by a Past Recovery Field Director. The ASI field crew will work Monday to Friday and the Past Recovery field crew will work 10 on 4 off. ERM Field Leads will continue to accompany both crews. Past Recovery will maintain control over the Stage 2 archaeology program, including all supervision of the fieldwork. All ASI field staff have completed, or are in the process of completing, a degree in anthropology, archaeology or another related discipline and include two First Nation archaeologists.

Past Recovery's Field Directors will be checking in with ASI Field Directors on a regular basis and will be visiting the ASI crew often. If issues arise during fieldwork that cannot be resolved, these locations will be deferred until a Past Recovery Field Director can be present to assess the situation in person. Past Recovery's Field Directors will be reviewing all of ASI's field notes, field photographs and fieldwork mapping to ensure that these meet Past Recovery's standards for the project. Past Recovery will maintain full responsibility of the Stage 2 reporting including the analysis of artifacts and the development of recommendations. First Nation communities will continue to be involved in the development of appropriate recommendations for any sites documented during the Stage 2 fieldwork and will be provided with a draft of the Stage 2 report for review.

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

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Imperial Oil Limited
602 Christina Street
Sarnia ON N7T 7M5

Kelly Williams
Community Relations Officer
Waterdown to Finch Project
Cell: (519) 328-8681
Email: kelly.williams@esso.ca

May 16, 2019

Mark LaForme
Executive Director
Department of Consultation and Accommodation
Mississaugas of the Credit First Nation
4065 Hwy 6 North, Hagersville ON N0A 1H0

Via email

Re: Response to March 19, 2019 letter from MCFN to Imperial

Dear Mark,

Thank you for your March 19, 2019 letter.

Imperial has reviewed your letter and would like to take this opportunity to respond to the concerns raised by Mississaugas of the Credit First Nation (“MCFN”).

1. Lack of adequate notice and lack of consideration of MCFN needs and capacity

In terms of general plans, the Stage 2 archaeological field program remains the same as what was communicated to MCFN at the July 19, 2018 meeting. The detailed Stage 2 field program plans shared with MCFN on March 15, 2019 identified the fact that Stage 2 fieldwork would adhere to the Standards and Guidelines for Consultant Archaeologists (MTCS 2011), which includes Standard 2.1.3 related to surveys occurring when conditions are appropriate. In all cases, Imperial would proceed with archaeological field work only when conditions are appropriate. Thus, there is always potential for start dates to change.

2. Adequacy of archaeological training for team

As per the Ministry of Tourism, Culture and Sport (MTCS) Standards and Guidelines for Consultant Archaeologists, Imperial’s archaeological team is fully qualified to complete the Stage 2 field program. Below is a summary of the qualifications of the archaeology team. The ratio of staff qualified as field directors to technicians is 1:4, with the ratio of staff designated as field directors for the program to technicians being 1:19.

- 4 Field Directors (2 Past Recovery and 2 ASI Heritage)
 - have Applied Research Licence



- have a degree in anthropology, archaeology or related discipline
- are experienced in conducting Stage 1-4 archaeological assessments
- 3 Field Assistants (two of which are qualified to be Field Director alternates)
 - two with Applied Research Licences, one with Professional Licence
- 18 Archaeological Services Inc. (ASI Heritage) Field Technicians
 - all have completed, or are in the process of completing, a degree in anthropology, archaeology or another related discipline
 - all will complete an internal training process prior to going out in the field
- 14 Past Recovery Field Technicians
 - 13 have previous experience in the field, 1 has Ontario field school experience

3. Unsuitable weather conditions

The Stage 2 field program started in the east and is moving west – this strategy was developed to consider more favourable weather and soil conditions in Toronto (east) and move west as temperatures rise. Weather (along with locates and permissions) are factors in potentially delaying the Stage 2 field program; the program will proceed as conditions are appropriate.

Imperial will follow MTCS guidelines and recognizes that MCFN has empowered their FLRs to offer their input into the suitability of field conditions.

4. Overall concern re: increased chance of poor archaeological work and that something will be missed at the Stage 2 level

As outlined above, Imperial's archaeological field program team is fully qualified and will follow MTCS guidelines. Fully qualified staff and strict adherence to MTCS guidelines, including an appropriate amount of time to complete all the work in accordance with the guidelines, will ensure quality archaeological field work and decrease the risk that anything will be missed during the Stage 2 archaeological field program. Additionally, Imperial will be developing a chance find protocol during construction and can share that protocol with MCFN once it is developed.

5. Adequate time to review Stage 2 report and Stage 2 report review comments and concerns addressed before Stage 3 work occurs

Imperial will be drafting the Stage 2 report on an ongoing basis while completing the Stage 2 field program. If MCFN prefers to review drafts of the Stage 2 report at specific milestones, as opposed to waiting for the final draft, Imperial is open to discussing this option. When Imperial receives MCFN Stage 2 report review comments and concerns, Imperial will respond in a timely manner. However, given Project timelines and field work scheduling, Stage 3 field work will likely occur before the Stage 2 report has been fully compiled and reviewed. Thus, Imperial will provide MCFN with information regarding site-specific Stage 3 field work plans as early as possible. When additional artifacts are located, Imperial will develop a site-specific avoidance or Stage 3 strategy to be reviewed with MCFN prior to field work. Additionally, if MCFN identifies



any issues during the Stage 2 field work, Imperial will work with MCFN to address those issues and to consider them in Stage 3 field work planning.

6. MCFN's template for Field Liaison Representative (FLR) participation

With respect to the consultation relationship and responsibility for the Project, Imperial is open to discussing an appropriate agreement between MCFN and Imperial. MCFN and Imperial legal counsel are currently progressing this option.

Imperial is committed to ongoing engagement with MCFN. If you have any questions or concerns regarding this response, please contact me at (519) 328-8681 or kelly.williams@esso.ca.

Sincerely,

Kelly Williams
Community Relations Officer

Cc by email: Megan DeVries, Archaeological Operations Supervisor, MCFN-DOCA
Matt McPherson, OKT LLP, legal counsel MCFN
Jessie Malone, Environment and Regulatory Advisor, Imperial Oil Limited
Joel Wiens, Counsel, Imperial Oil Limited

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: May 17, 2019 10:28 AM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles
Attachments: 2019.03.19 MCFN letter response final draft-.docx; 2019.03.29 MCFN watfin mtg sum final draft.DOCX; 2019.04.17 MCFN watfin mtg sum final draft.docx

From: Williams, Kelly /C
Sent: Friday, May 17, 2019 12:28 PM
To: 'Megan DeVries' <Megan.DeVries@mncfn.ca>
Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Curtis Campbell <Curtis.Campbell@erm.com>
Subject: RE: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

Good afternoon Megan,

In response to your May 3rd email, I wanted to let you know that your concerns were heard. There are challenges with a program this extensive; however, Imperial is committed to transparency and to conducting a comprehensive archaeology program.

Additionally, Imperial would like to take this opportunity to provide the summaries from our March 29th and April 17th meetings and a written response to MCFN's March 19th letter, the content of which was discussed at the March 29th meeting and is relevant to your May 3rd email.

Regarding your request on May 15, Past Recovery is not delegating responsibility to ASI; Past Recovery will maintain responsibility to ensure MTCS Standards, as well as internal Past Recovery standards, are met. This will be enforced on the project through the mechanisms described by Past Recovery in my last email.

Imperial and our project contractors recognize that efforts to remain consistent with the assurances provided at our meetings are key to building and maintaining a positive relationship with MCFN. As a routine is established and fieldwork conditions improve, there should be less logistical issues. Keeping this in mind, please continue to provide your feedback and concerns as the program progresses.

Imperial's responses to the specific concerns identified in your May 3rd email are listed below.

Please call me if you have any questions, and have an enjoyable and safe holiday weekend! -kelly

1. *Improved Scheduling and Organization*

- a. *MCFN appreciates the circulation of the crew scheduler by ERM. It greatly enhances our understanding of the crew deployment. However, ERM has not communicated to us when crew deployment is deviating from what is scheduled. Joelle has repeatedly had to request updated information from ERM, including the postponement and cancellation of crews. DOCA needs to be informed of the day-to-day changes to the schedule, at an appropriate time, via emails from ERM, in order to ensure that our scheduling is accurate. If we do not have this information, we will need to schedule based on the provided schedule.*

Imperial response: As the weather improves, ERM's ability to efficiently plan and coordinate logistics should improve. ERM will endeavor to provide logistics information as early as possible, including changes to scheduled plans and this information will be provided by ERM via email at before the end of the business day on the day prior to the work.

- b. DOCA requested at our meeting on March 29th that a handful of consistent meeting locations be selected for day-to-day fieldwork, from which crews can coordinate and depart for the ever-changing survey areas. It is not effective, and actually quite frustrating, to receive late-night, last-minute emails with new deployment information. This is not an unreasonable request, but to date no consistent meeting locations have been identified.*

Imperial response: ERM will provide morning meeting locations.

2. Crew Breakdown and Function

- a. At our meeting on March 29th, DOCA requested information about how the multi-company crews would function on the ground. At the time of the meeting, we were informed that the specific action plan of each crew was still being developed and we would be provided with the plan prior to deployment. We still have received no communication or information on this matter. Our questions are as follows:*
 - i. What are the numbers in each crew of personnel from the different firms?*

Imperial response: Each archaeology field crew will include 1 PR/ASI Field Director, 1 ERM Field Lead and 19 archaeologists.

- ii. What is the confirmed ratio of field directors to field technicians to other participants (e.g. ERM)?*

Imperial response: The ratio of staff qualified as field directors to technicians is 1:4, with the ratio of staff designated as field directors for the program to technicians being 1:19. There are no other participants in the archaeology field crews; other staff on site will include 1 ERM field lead, 1 ERM subsurface clearance specialist and 1 TGH safety lead.

- iii. What is the contact information (e.g. phone number) for the primary field director of each crew?*

Imperial response: The contact information for the archaeology field directors and ERM field leads:

- PR: Caitlyn Howard, 613-390-1193
- PR: Jessalyn Miller, 519-998-4851
- ASI: Emily Meikle, 416-859-3340
- ASI: Andrew Sparling, 416-453-3806
- ERM: Chris Thorne, 647-391-9430
- ERM: Tiffany McLellan, 705-868-8256

- iv. In what way will all three firms be interacting with one another to support effective fieldwork?*

Imperial response: Past Recovery and ASI are subcontracting to ERM. Past Recovery's P-Licence holder will have overall responsibility for the archaeological assessment aided by field director and staff from Past Recovery and ASI. ERM will provide a field lead for each crew to help with coordination and communication back to the ERM office. ERM Field Leads will be digging and screening. Tiffany and Chris from ERM are both fully qualified at the Field Director level and have numerous years of experience to participate at this level. **They are not field directing.** Field Leads will not be influencing the Field Directors in determining archaeological potential, CHVI or make the final decisions on if conditions are appropriate.

- v. How will the crews be effectively managed to ensure a coordinated and comprehensive assessment within the study areas?*

Imperial response: Past Recovery is responsible for the comprehensiveness of the assessment and ERM will provide overall coordination keeping track of land access permissions, OneCalls, Pipeline locates and effects to overall schedule.

3. *ERM and Past Recovery*

- a. *Based on the fieldwork that has been completed to date, it is DOCA's observation that the representatives from Past Recovery are not operating with the final authority in the field that they should hold as the licensees. Our FLRs have observed on a number of occasions that the Past Recovery field directors have deferred from making decisions that are necessary for them to make because of input and/or implied pressure from the ERM representatives alongside them. This is inappropriate.*

Imperial response: Past Recovery has the authority on all decisions related to the execution of the archaeological assessment. ERM's role is to aid them in this effort by taking responsibility for dealing with landowner permissions, subsurface clearance issues and health and safety concerns. The role of the ERM field lead is to work with Past Recovery and ASI to effectively deliver this work and to report on progress and issues.

- b. *For example, on April 29 Chris from ERM went to another area of the proposed pipeline requiring Stage 2 to check if the site conditions were appropriate, which is a decision that rests with the licensee or the representative of the licensee on site (i.e. the Past Recovery field directors). He did so without inviting our FLRs to accompany him and have input into that determination, which is also inappropriate.*

Imperial response: Due to the wet conditions encountered in one work area Chris was asked by the archaeology crew field director to move ahead and identify other areas where work could be conducted. This was not a final determination of the viability of the area, but an initial assessment to determine if it was worth moving the entire crew. As with other locations, the final determination was up to Past Recovery who agreed with Chris' assessment that a small area was able to be tested, while the majority need to be left until conditions had improved. FLRs should always feel free to raise concerns.

From: Megan DeVries [<mailto:Megan.DeVries@mncfn.ca>]

Sent: Wednesday, May 15, 2019 4:03 PM

To: Williams, Kelly /C <kelly.williams@esso.ca>

Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; b.kennett@pastrecovery.com; Malone, Jessie M <jessie.m.malone@esso.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>

Subject: RE: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

Hi Kelly,

We await your additional information and will reserve further comments until that time.

In the interim, can you please provide us with the letter from Brenda of Past Recovery delegating her licensee responsibility to the ASI field director?

Thank you,
Megan.

Megan DeVries, M.A.
Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
Mississaugas of the Credit First Nation (MCFN)

McArthur, Cheryl

From: Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Sent: June 14, 2019 12:26 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

From: Megan DeVries [<mailto:Megan.DeVries@mncfn.ca>]
Sent: Tuesday, May 28, 2019 3:15 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Curtis Campbell <Curtis.Campbell@erm.com>; b.kennett@pastrecovery.com
Subject: RE: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

Hello Kelly,

Thank you for taking the time to respond to our questions and concerns. As can be expected with a project of this size, there are a number of ongoing issues that still need to be addressed.

1. WFP Logistics
 - a. We acknowledge the work that has been done by Jenna Down of ERM to provide the DOCA office with advance notice of the meeting locations. We continue to strongly encourage ERM to consider consistent meeting locations for all personnel, from which crews can then travel to their work site.
 - b. There was a small incident over the weekend, communicated in a separate email, wherein one of the ERM crew leads unilaterally altered the meeting location for the following day without notifying the DOCA office. We understand that the issue has been addressed with the field lead in question and will not happen again.
2. ASI Field Crew
 - a. At the Spring 2019 WFP meeting, Imperial Oil introduced ASI and communicated their intention to MCFN to utilize ASI field technicians to bolster crew numbers under Past Recovery supervision. It was our understanding, based on this conversation and the answers given in response to the concerns raised by DOCA staff at the time, that ASI field technicians would be working under the supervision of Past Recovery field directors. We were surprised, therefore, when notice was circulated to us that a stand-alone ASI field crew would be operating independently of any in-field Past Recovery supervision. We did not agree to this distribution of personnel.
 - b. Furthermore, our FLRs have reported to DOCA staff a general lack of training and knowledge exhibited by field technicians over the past month of fieldwork, particular those staff supplied by ASI. "In the process of completing an archaeological or related degree" does not provide the same level of expertise as years of field experience, especially in difficult field conditions like those encountered on the WFP. This reinforces our justification for requiring an appropriate ratio of FLRs to field crew to ensure that no mistakes are made in the field due to a lack of experience and oversight. We will continue to monitor this moving forward.
3. ERM Interference in Past Recovery's Decision Making
 - a. Thank you for providing information on the roles and relationships of the many consultants interacting in the field and on this project. While we appreciate Imperial Oil reiterating that Past Recovery has the authority on all decisions related to the execution of the archaeological assessment, our FLRs continue to report that Past Recovery and ASI field directors exhibit a reluctance to make necessary project-

related decisions when ERM crew leads are present, particularly those that could potentially impact project timelines. We will continue to monitor this moving forward.

4. Past Recovery's Delegation of Licensee Obligations
 - a. We understand that Imperial Oil does not believe that Past Recovery needs to delegate its licensee responsibilities to ASI, who is operating a stand-alone field crew. We will be following up with the MTCS to clarify the requirements for this action.
5. **New Issue:** Up-to-date Field Maps and Methodology
 - a. We are requesting weekly updates from Past Recovery summarizing the activities and progress for the WFP at the conclusion of each week. This will allow us to better understand and monitor the fieldwork associated with the project, and communicate changes to the FLRs.
 - b. We are once again requesting specific corridor mapping accurately representing the areas to be surveyed as part of the Stage 2. Please ensure that this mapping illustrates the proposed survey methodology for each section of the corridor.
6. **New Issue:** Interpersonal Field Relations
 - a. There was an unfortunate incident last week wherein a Past Recovery field director excluded MCFN FLRs from her decision-making process. In order not to complicate the current discussion, I will follow up in a separate email specific to that issue.

As always, thank you for your time and attention to these matters.

Sincerely,
Megan.

Megan DeVries, M.A.
Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
Mississaugas of the Credit First Nation (MCFN)
4065 Highway 6 North, Hagersville, ON NOA 1H0
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<http://www.mncfn.ca>

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From: Williams, Kelly /C [<mailto:kelly.williams@esso.ca>]
Sent: Friday, May 17, 2019 12:28 PM
To: Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Curtis Campbell <Curtis.Campbell@erm.com>
Subject: RE: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

Good afternoon Megan,

In response to your May 3rd email, I wanted to let you know that your concerns were heard. There are challenges with a program this extensive; however, Imperial is committed to transparency and to conducting a comprehensive archaeology program.

From: [Murillo, Breanna K /C](mailto:Murillo.Breanna.K/C)
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Licensee Delegation of Obligations
Date: Thursday, July 4, 2019 10:25:15 AM

From: Megan DeVries [<mailto:Megan.DeVries@mncfn.ca>]
Sent: Tuesday, May 28, 2019 3:24 PM
To: Bryant, Kathryn (MTCS) <Kathryn.Bryant@ontario.ca>
Cc: Mark LaForme <Mark.LaForme@mncfn.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; b.kennett@pastrecovery.com
Subject: Licensee Delegation of Obligations

Good afternoon Katie,

I am writing to you seeking clarification regarding a licensee's obligations to delegate their in-field responsibility in the event that they themselves are not conducting the fieldwork for which they have PIF. In general, MCFN expects and accepts that field directors from the same archaeological firm will carry out fieldwork on behalf of the principals of that firm who hold the PIF and have intentionally hired them to act on their behalf. We do not ask for a letter of delegation because the decision-making authority and lines of communication are clear and consistent within the same company in regards to chain of command and authority over the employee.

In this case, however, Imperial Oil has notified MCFN that for the Waterdown to Finch project that Brenda Kennett of Past Recovery is the professional licensee for the Stage 2 archaeological assessment. Last year, a Past Recovery field crew conducted part of the assessment on her behalf and under her immediate, though not-in-field, supervision. This year, a second crew has been added to supplement the Stage 2 field program and that crew is entirely staffed by employees of ASI. There is no representative of Past Recovery – P-licensee or field director – on site with them.

We have requested through and from Imperial Oil, the proponent for the project, a letter from Past Recovery delegating Brenda Kennett's day-to-day responsibilities to the ASI field director. It is our understanding that this is a requirement of the terms and conditions of an archaeological licensee in Ontario when the PIF-holder is not on site themselves conducting the assessment. Imperial Oil, via their representative Kelly Williams, has informed us of the following: "Regarding your request on May 15, Past Recovery is not delegating responsibility to ASI; Past Recovery will maintain responsibility to ensure MTCS Standards, as well as internal Past Recovery standards, are met. This will be enforced on the project through the mechanisms described by Past Recovery in my last email." Additionally, Kelly Williams communicated via phone call that she had been informed that this was not without precedence, having previously been allowed by MTCS without official delegation, though I do not know for which project.

It is our understanding of the regulations that without this letter of delegation that any fieldwork conducted by an individual who is not the licensee nor has been delegated these responsibilities by the licensee is invalid. Can you please clarify our interpretation of that requirement and/or confirm if that is correct? We have separate concerns regarding the use of a secondary archaeological firm without direct in-field supervision by the primary licensee's firm, but we are requesting clarification

of whether it is necessary to delegate licensee responsibilities in this way first and foremost.

Thank you for your time.

Sincerely,
Megan.

Megan DeVries, M.A.
Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
Mississaugas of the Credit First Nation (MCFN)
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McArthur, Cheryl

From: Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Sent: June 14, 2019 12:26 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

From: Williams, Kelly /C [<mailto:kelly.williams@esso.ca>]
Sent: Monday, June 10, 2019 11:05 AM
To: Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Curtis Campbell <Curtis.Campbell@erm.com>; b.kennett@pastrecovery.com
Subject: RE: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

Hi Megan,

Thank you for outlining the archaeology field program items that we have been working to address.

With respect to the items that have been raised previously, Imperial understands that these items have been addressed (Past Recovery decision making), are addressed on an ongoing basis (logistics and field crew) or are in the process of being addressed (Delegation of Licensee).

With respect to field maps and methodology, the updated field maps have been provided. Please let us know if you have any questions. ERM is providing a weekly update summary every Friday. Are you looking for a further level of detail? If so, please let me know what details you would like to receive.

With respect to the interpersonal field relations item, I understand that our recent telephone conversation has addressed this item. Looking forward to seeing the DOCA team at the Open House on the 20th. -kelly

From: Megan DeVries [<mailto:Megan.DeVries@mncfn.ca>]
Sent: Tuesday, May 28, 2019 3:15 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Curtis Campbell <Curtis.Campbell@erm.com>; b.kennett@pastrecovery.com
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As always, thank you for your time and attention to these matters.

Sincerely,
Megan.

Megan DeVries, M.A.

McArthur, Cheryl

From: Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Sent: June 14, 2019 12:26 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

From: Megan DeVries [<mailto:Megan.DeVries@mncfn.ca>]
Sent: Friday, June 14, 2019 10:55 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Curtis Campbell <Curtis.Campbell@erm.com>; b.kennett@pastrecovery.com
Subject: RE: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

Hi Kelly,

In addition to general update information, DOCA is specifically looking for:

1. Comprehensive tracking of project parcels and assessment progress for each.
2. Preliminary in-field results detailing identified artifacts, findspots, and/or sites for each parcel.
3. Record of pertinent in-field discussions between crew leads and FLRs/Indigenous monitors.

Thank you,
Megan.

Megan DeVries, M.A.
Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
Mississaugas of the Credit First Nation (MCFN)
4065 Highway 6 North, Hagersville, ON N0A 1H0
P: 905-768-4260 | M: 289-527-2763
<http://www.mncfn.ca>

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From: Williams, Kelly /C [<mailto:kelly.williams@esso.ca>]
Sent: Monday, June 10, 2019 11:05 AM
To: Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Joelle Williams <Joelle.Williams@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Jenna Down <Jenna.Down@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; Curtis Campbell <Curtis.Campbell@erm.com>;

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Permitting and Procedural Order
Date: Monday, June 17, 2019 2:19:04 PM
Attachments: [190617 Environmental Permitting Overview.pptx](#)
[PO2 Imperial LTC 20190610.pdf](#)

From: Williams, Kelly /C

Sent: Monday, June 17, 2019 12:45 PM

To: Caron Smith <Caron.Smith@mncfn.ca>

Cc: 'Megan DeVries' <Megan.DeVries@mncfn.ca>; Mark LaForme <Mark.LaForme@mncfn.ca>; 'Fawn Sault' <Fawn.Sault@mncfn.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Nicole Bishop <Nicole.Bishop@erm.com>

Subject: Waterdown-Finch Project-Imperial Oil Ltd-Permitting and Procedural Order

Hi Caron,

Thanks again for the discussion on Imperial's Environmental Report for the Waterdown to Finch Project and for your questions related to the overall environmental permitting process. An overview of the environmental permitting process, as well as permit-specific details required for the Project is attached.

I also wanted to provide you with an update on the Leave to Construct Application progress for the Project with the Ontario Energy Board. The OEB issued a Procedural Order on May 31, 2019, confirming intervenors and procedural dates. A revision to the Procedural Order (No.2) was issued on June 10, 2019, in response to an extension request from the City of Mississauga and details the following procedural dates:

July 15 – OEB/intervenors to issue list of Information Requests (IRs) to Imperial

August 6 – Imperial responses (electronic and hard copy) are required

August 16 – Imperial to receive written hearing submission from OEB and intervenors

August 26 – Imperial to provide written hearing responses to OEB

A copy of PO No.2 is also attached. Additional documentation related to the hearing process can be found on the OEB's website [HERE](#).

With regard to your question about recent updates to the Source Water Protection Plans, Imperial was not required to make any updates to the Environmental Report. The Source Water Protection Regions are currently completing updates to their models and risk assessments and have reached out to Imperial to request updated information on the new pipeline which will help to more accurately reflect risk of operation.

Let me know if your or other staff have any questions, the Project team would be happy to meet to discuss in further detail. I will be attending the Open House on Thursday and look forward to seeing everyone!

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-2019 Environmental Field Program
Date: Thursday, June 20, 2019 2:16:06 PM
Attachments: [watfin env field scope - final draftkw.DOCX](#)

From: Williams, Kelly /C

Sent: Thursday, June 20, 2019 3:34 PM

To: Caron Smith <Caron.Smith@mncfn.ca>

Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Nicole Bishop <Nicole.Bishop@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>; 'Fawn Sault' <Fawn.Sault@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>

Subject: Waterdown-Finch Project-Imperial Oil Ltd-2019 Environmental Field Program

Hi Caron,

Please see the attached information regarding the 2019 Field Program for the Waterdown-Finch Project. It is my understanding that a monitor was present for much of the fieldwork in 2018. ERM will be the contact to provide logistics if MCFN would like to engage in this manner once again.

Please review and let me know if you have any questions.

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Williams, Kelly /C](mailto:Williams_Kelly_C)
To: Projectmail - Wood E&I Calgary - Consultation
Cc: [Murillo, Breanna K /C](mailto:Murillo_Breanna_K_C)
Subject: FW: WFP Stage 2 Field Testing WTFN4030
Date: Monday, July 29, 2019 8:06:54 AM
Attachments: [ERM_Eastgate Pwky and Dixie Rd WTFN4030.pdf](#)
[WFP Stage 2 in Disturbed areas.pdf](#)

From: Brenda Kennett [<mailto:b.kennett@pastrecovery.com>]
Sent: Friday, June 21, 2019 9:09 AM
To: b.kennett@pastrecovery.com
Cc: 'Daniel Walker' <Daniel.Walker@erm.com>; 'Jenna Down' <Jenna.Down@erm.com>; 'Lisa Merritt' <LMerritt@asiheritage.ca>
Subject: WFP Stage 2 Field Testing WTFN4030

Good morning,

As we work through and up-date protocols for the Stage 2 field program we are attempting to respond to your requests for timely documentation related to fieldwork. Going forward, Past Recovery will aim to provide your offices with information in support of fieldwork discussions, decisions and progress at regular intervals. While we develop a more comprehensive reporting protocol, we wanted to address specific issues related WTFN4030 that arose this week.

On the WFP project, we have many locations where extensive areas of disturbance and/or deep fill are presenting challenges for the Stage 2 field testing program as standard shovel test pits on a 5 m grid is not an effective or appropriate assessment methodology. As such, we have prepared a general methodology for how we propose to test these areas (WFP Stage 2 in Disturbed areas – attached). This protocol is in compliance with the MTCS Standards and Guidelines (2011).

With specific reference to WTFN4030, where the ASI crew was working on June 19, a more detailed review of background information has been prepared (ERM_Eastgate Pkwy and Dixie Rd WTFN4030 - attached) in support of the Stage 2 testing methodology for this parcel. We hope that this document addresses any concerns raised in the field on Wednesday and will permit the testing of this parcel to proceed accordingly.

If there are any questions or comments related to either the general methodology or the specific information for WTFN4030, please do not hesitate to contact me.

We join you in recognizing and celebrating National Indigenous Peoples Day today!

With thanks,

Brenda

Brenda Kennett, M.A.
Principal
Past Recovery Archaeological Services Inc.

99C Dufferin Street
Perth, ON K7H 3A5

Phone: 613-267-7028

Mobile : 613-331-2544

Email: b.kennett@pastrecovery.com

Six Nations of the Grand River

From: [Williams, Kelly /C](#)
To: imperial-isometrix@national.ca
Subject: FW: Waterdown-Finch Project-Imperial Oil Limited
Date: Friday, February 8, 2019 9:24:14 AM

From: Williams, Kelly /C
Sent: Friday, February 8, 2019 11:24 AM
To: 'jthomas@sixnations.ca' <jthomas@sixnations.ca>
Cc: 'pgeneral@sixnations.ca' <pgeneral@sixnations.ca>; 'rm1.miller@hotmail.com' <rm1.miller@hotmail.com>; 'Matthew Jocko' <mjocko@sixnations.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: Waterdown-Finch Project-Imperial Oil Limited

Good morning Joanne,

Earlier in the week I sent your team a link to the draft Environmental Report for the Waterdown-Finch project. Let me know if you have any issues with accessing this file. I will be at Six Nations on Wednesday February 13, and will deliver a hard copy of the report to your office.

Imperial is prepared to offer reasonable funding for costs associated with reviewing the report. The report will be part of the Leave to Construct application which is targeted for submission to the OEB on February 22. You are welcomed to send your comments to us directly.

The team is working on plans and logistics for 2019 archeology field work. We will update you as soon as possible so you may allocate your resources as necessary. The Credit River Valley project is also scheduled to begin shortly, and I will let you know as soon as I have confirmation of a start date.

If you have any questions, let me know.

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Stage 1 Archaeology Report Update-Waterdown-Finch Project-Imperial Oil Ltd
Date: Monday, April 22, 2019 8:46:55 AM

From: Williams, Kelly /C

Sent: Tuesday, April 16, 2019 3:57 PM

To: Joanne Thomas <jthomas@sixnations.ca>

Cc: Dawn LaForme <dlaforme@sixnations.ca>; Lonny Bomberry <lonnybomberry@sixnations.ca>; Matthew Jocko <mjocko@sixnations.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Jenna Down <Jenna.Down@erm.com>

Subject: Stage 1 Archaeology Report Update-Waterdown-Finch Project-Imperial Oil Ltd

The Stage 1 Archaeology report for the Waterdown-Finch Project was sent to Six Nations last fall for review and comment. Since that time, there have been revisions to the report to address minor changes in the project footprint. Imperial will be delivering it to the MCTS in the next few weeks. However, before this submission, Imperial is providing you with the draft report, maps and a memo summarizing the revisions made since your initial review. Review of project reports does require an allocation of your department resources. Imperial is prepared to provide reasonable funding for your department to do this work if you wish.

The link below will provide you with the following information.

- Revised Stage 1 report
- Memo summarizing the changes made to the Stage 1 report since the last version was reviewed
- Stage 1 archaeological assessment redacted maps

URL: <https://onyx.erm.com>

Username: 0460600

Password: 4KQ6Q2Nh

(Password is case-sensitive)

Let me know if you are unable to access these files. If you have any questions or comments on the report/revisions, please contact me at your earliest convenience.

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: [Williams, Kelly /C](mailto:Williams_Kelly/C)
To: [Murillo, Breanna K /C](mailto:Murillo_Breanna K /C)
Cc: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch Project-Imperial Oil-Stage 2 start date
Date: Thursday, April 25, 2019 7:59:33 AM
Attachments: [A.0 2019 SN-W2FArchaeological Monitoring Agreement.pdf](#)

From: Jenna Down [<mailto:Jenna.Down@erm.com>]
Sent: April 23, 2019 4:38 PM
To: Joanne Thomas <jthomas@sixnations.ca>
Subject: RE: Waterdown-Finch Project-Imperial Oil-Stage 2 start date

Hi Joanne, would you be around for a call at 5pm? Just have a quick question about the 2019 agreement.

Jenna

From: Joanne Thomas <jthomas@sixnations.ca>
Sent: Tuesday, April 23, 2019 2:24 PM
To: Jenna Down <Jenna.Down@erm.com>; Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Dawn LaForme <dlaforme@sixnations.ca>; Curtis Campbell <Curtis.Campbell@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil-Stage 2 start date

Hi Jenna,

The \$100 fee includes: monitor wage, mileage, per diem if 100 km away from home, hotel room if necessary, administrative fee and for time spent reviewing and commenting on all reports such as the archaeological assessment (AA) for MTCS, any work strategies, mapping, etc. if you think about it, it does take quite a bit of time to read the archaeological assessments. It has become common practice to send the AA to the First Nations (FN) for review and comment. Lately the ministry has been asking if the FN has signed off on the AA. So I am having to read every AA and comment on it. Its very time consuming and can be complicated to someone with no archaeological background. At one point over the winter I had 15 to 20 AA to read and comment.

I hope this explanation helps.

JT

Joanne Thomas

Consulltation Supervisor
Six Nations of the Grand River

Phone: 519-753-0665
Fax: 519-753-3449
Email: jthomas@sixnations.ca

From: Jenna Down [<mailto:Jenna.Down@erm.com>]
Sent: April 23, 2019 2:10 PM
To: Joanne Thomas <jthomas@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Dawn LaForme <dlaforme@sixnations.ca>; Curtis Campbell <Curtis.Campbell@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil-Stage 2 start date

Hi Joanne,

Back in March, Six Nations sent a 2019 Field Agreement to Kelly which included Term #4 - '...and a fee for reviewing and commenting on the Archaeological Assessments being sent to Ministry of Tourism Culture and Sports (MTCS)'.

Would you mind clarifying the review fee amount please?

Thank you,
Jenna

From: Joanne Thomas <jthomas@sixnations.ca>
Sent: Tuesday, April 23, 2019 2:07 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Dawn LaForme <dlaforme@sixnations.ca>; Jenna Down <Jenna.Down@erm.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil-Stage 2 start date

Yes I am ok with the agreement with the new rates. If we can get a signature on your end and then send to us and we will sign. And send back to you for your files.

Thanks.

Joanne Thomas

Consultation Supervisor
Six Nations of the Grand River
Phone: 519-753-0665
Fax: 519-753-3449
Email: jthomas@sixnations.ca

From: Williams, Kelly /C [<mailto:kelly.williams@esso.ca>]
Sent: April 23, 2019 1:36 PM

To: Joanne Thomas <jthomas@sixnations.ca>
Cc: Dawn LaForme <dlaforme@sixnations.ca>; Jenna Down <Jenna.Down@erm.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil-Stage 2 start date

No problem, it's a good opportunity for me to keep straight for myself where things are at too.

Are you ok with moving forward with the agreement with the new rates? ERM will draft the same as the current agreement. I can have Jenna send to you for review today. Thanks!

-kelly

From: Joanne Thomas [<mailto:jthomas@sixnations.ca>]
Sent: Tuesday, April 23, 2019 12:40 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>; Dawn LaForme <dlaforme@sixnations.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Jenna Down <Jenna.Down@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Hellinga, Nathan <nathan.hellinga@woodplc.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil-Stage 2 start date

Thank you Kelly for the update.

I was aware of 3 projects happening.

At first I was a bit confused but went back through my emails to straighten out what I didn't understand.

Joanne Thomas

Consultation Supervisor
Six Nations of the Grand River
Phone: 519-753-0665
Fax: 519-753-3449
Email: jthomas@sixnations.ca

From: Williams, Kelly /C [<mailto:kelly.williams@esso.ca>]
Sent: April 23, 2019 12:35 PM
To: Joanne Thomas <jthomas@sixnations.ca>; Dawn LaForme <dlaforme@sixnations.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Jenna Down <Jenna.Down@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Hellinga, Nathan <nathan.hellinga@woodplc.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil-Stage 2 start date

Hi Joanne and Dawn,

Hope you had an enjoyable holiday weekend! I think there is some confusion regarding the agreements for monitoring on Imperial Oil projects. To clarify, we have 3 separate projects happening concurrently and are engaging Six Nation monitors to participate.

1. Integrity Program Digs-the current and up to date agreement is with Wood and Nathan Hellinga in the coordinating contact for Wood. Archaeology for 2019 program is beginning and monitors are participating.
2. Credit River Valley Project-the agreement is with Wood and Nathan Hellinga is the project contact. This HDD pipeline replacement project (600m) taking place in the Credit River Valley in Mississauga. Monitoring of mat placement is the most recent activity and Six Nations monitors did participate in the archaeology program last year.
3. Waterdown to Finch Project-the agreement is with ERM. The coordination contact is Jenna Down. This is the large 63 KM pipeline replacement project. Upon approval construction may start later in the year. The LTC application has been submitted. I will be delivering a copy of the Notice to your office on Friday. The archaeology program will begin on Thursday. We do have a current agreement in place, however it was Imperial/ERMs understanding that the rates for 2019 were to be increased and a new updated agreement reflecting these changes was to be signed. Dawn sent that to us a few weeks ago.

Let me know if you have any questions or if I can provide any assistance with the Waterdown-Finch agreement. I will be sending more project communication in the next few days. Thanks!

Best,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

From: Joanne Thomas [<mailto:jthomas@sixnations.ca>]

Sent: Tuesday, March 26, 2019 1:11 PM

To: Williams, Kelly /C <kelly.williams@esso.ca>; Dawn LaForme <dlaforme@sixnations.ca>

Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Jenna Down <Jenna.Down@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>

Subject: RE: Waterdown-Finch Project-Imperial Oil-Stage 2 start date

Hi Kelly,

That's great you have a later start date. We need to set up an agreement. I will have my assistant

From: [Williams, Kelly /C](#)
To: [Murillo, Breanna K /C](#)
Cc: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Formal Notice-LTC Submission-Waterdown to Finch-IOL
Date: Thursday, April 25, 2019 7:31:21 AM
Attachments: [Notice_IOL_201904101.pdf](#)

From: Williams, Kelly /C

Sent: Thursday, April 25, 2019 9:31 AM

To: 'Lonny Bomberry' <lonnybomberry@sixnations.ca>

Cc: 'Paul General' <pgeneral@sixnations.ca>; 'Matthew Jocko' <mjocko@sixnations.ca>; 'Joanne Thomas' <jthomas@sixnations.ca>; Dawn LaForme <dlaforme@sixnations.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>

Subject: Formal Notice-LTC Submission-Waterdown to Finch-IOL

Dear Lonny,

Please find enclosed a Notice of Hearing issued by the Ontario Energy Board (OEB) to consider Imperial’s Leave to Construct application filing for the Waterdown to Finch Project. On February 25, 2019, the Project submitted a Leave to Construct application to the OEB, the province’s energy regulator, who is responsible for ensuring compliance with the province’s environmental guidelines for the location, construction and operation of hydrocarbon pipelines and facilities in Ontario. Imperial’s application reflects the robust environmental planning, stakeholder engagement, cultural, social and heritage assessment process that has taken place since the Project launched in May 2018.

The Project will replace a 63-kilometre segment of the Sarnia Products Pipeline between Waterdown and North York. Operating safely in the region for many years, this pipeline provides refined products used by businesses and households across the Greater Toronto and Hamilton Area, including a significant portion of jet fuel at Toronto Pearson International Airport. Subject to provincial regulatory review and receipt of all permits, Imperial expects to start construction on the replacement project by the end of 2019.

Imperial is committed to providing timely and accessible information about the Project and its regulatory review. In accordance with OEB requirements, the Waterdown to Finch Project application and evidence for the Leave to Construct and the Environmental Report will be available for download from Imperial’s project website at imperialoil.ca/waterdowntofinch as well as on the OEB’s regulatory applications page at oeb.ca/industry/applications-oeb.

For more information regarding Imperial’s Project application, the public hearing process and how to file a letter or become an intervenor, interested parties may also reference the file number **EB-2019-0007** on the OEB website: www.oeb.ca/participate. A hard copy of the application will be available for review at Imperial’s head office in Calgary, Alberta as well as its Finch Terminal in North York, Ontario.

Calgary Office Imperial Oil Limited 505 Quarry Park Blvd Calgary, Alberta T2C 5N1	Finch Terminal Imperial Oil Limited 1150 Finch Ave W North York, Ontario M3J 2E4
--	---

This information will also be sent to the Six Nations Chief and Council and I will deliver a hardcopy of the application to your office. Should you have any questions about the Project, please do not hesitate to contact me.

Sincerely,

Kelly
Kelly Williams
Community Relations Officer
Imperial's Sarnia Products Pipeline, Waterdown to Finch Project
602 Christina Street
Sarnia ON N7T 7M5
Cell 519 328 7405
imperialoil.ca Twitter YouTube

From: [Jenna Down](#)
To: [Joelle Williams](#); [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Joanne Thomas](#); [Williams, Kelly /C](#); [Maxime Picard](#); [Megan DeVries](#); [Todd Williams](#); [Wayne Hill](#)
Cc: [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#)
Subject: RE: Archaeology- May 9
Date: Wednesday, May 8, 2019 8:55:46 AM
Attachments: [image001.jpg](#)
[image002.png](#)

Hi Joelle,

PR and ERM will be making a call at the end of the day in regards to fieldwork tomorrow. I appreciate your patience with unpredictable weather during springtime as well as coordinating the crews.

Regards,
Jenna

From: Joelle Williams <Joelle.Williams@mncfn.ca>
Sent: Wednesday, May 8, 2019 10:21 AM
To: Jenna Down <Jenna.Down@erm.com>; Consultation.calgary@woodplc.com; Dawn LaForme <dlaforme@sixnations.ca>; Joanne Thomas <jthomas@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Maxime Picard <maxime.picard@cnhw.qc.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>; Todd Williams <williams.todde@gmail.com>; Wayne Hill <tworowarchaeology@gmail.com>
Cc: Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>
Subject: RE: Archaeology- May 9

Good morning Jenna,

Please let me know, at your earliest convenience, if you plan to return to site tomorrow and what the crew numbers will be. The FLR on site today reported there was close to 30 people on site today.

Thank you,
Joelle

From: Jenna Down [<mailto:Jenna.Down@erm.com>]
Sent: Friday, May 3, 2019 7:03 PM
To: Consultation.calgary@woodplc.com; Dawn LaForme; Joanne Thomas; Joelle Williams; Williams, Kelly /C; Maxime Picard; Megan DeVries; Todd Williams; Wayne Hill
Cc: Curtis Campbell; Matthew Scoular; Mark Welsh; Daniel Walker
Subject: Archaeology- Wednesday May 8

Hello,

Moving forward, but keeping weather and saturation levels in mind, we would like to continue with one crew on Wednesday, May 8th. We will be replicating the crew size we had last week (20 archaeologists).

From: [Jenna Down](#)
To: [Wayne Hill](#)
Cc: [Williams, Andrea \(MTCS\)](#); <Katherine.Cappella@ontario.ca>; [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Joanne Thomas](#); [Williams, Kelly /C](#); [Maxime Picard](#); [Megan DeVries](#); [Todd Williams](#); [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#); [Joelle Williams](#); [Nicole Bishop](#)
Subject: RE: Archaeology- May 9
Date: Wednesday, May 8, 2019 4:40:13 PM
Attachments: [image001.jpg](#)
[image002.png](#)

Hi Wayne, thank you for your note - Imperial will be sending a response to your concern shortly.

Best,
Jenna

From: Wayne Hill <tworowarchaeology@gmail.com>
Sent: Wednesday, May 8, 2019 11:53 AM
To: Jenna Down <Jenna.Down@erm.com>
Cc: Williams, Andrea (MTCS) <Andrea.Williams@ontario.ca>; <Katherine.Cappella@ontario.ca>
<Katherine.Cappella@ontario.ca>; Consultation.calgary@woodplc.com; Dawn LaForme
<dlaforme@sixnations.ca>; Joanne Thomas <jthomas@sixnations.ca>; Williams, Kelly /C
<kelly.williams@esso.ca>; Maxime Picard <maxime.picard@cnhw.qc.ca>; Megan DeVries
<Megan.DeVries@mncfn.ca>; Todd Williams <williams.todde@gmail.com>; Curtis Campbell
<Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh
<Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>; Joelle Williams
<Joelle.Williams@mncfn.ca>; Nicole Bishop <Nicole.Bishop@erm.com>
Subject: Re: Archaeology- May 9

Hi Jenna,

Thank you the your response. Let me clarify, first of all that is minmally 25 field staff not 20 which was not indicated whatsoever in previous emails. Second of all do they have any type of Ontario archaeological experience, most importantly are they qualified for stage 2 test pitting methodology. This was also not indicated in emails about lack of experience. The HDI will request Ontario archaeological staff 2 years experience in stage 2 test methodology and as previously stated in other emails this is not a training exercise and our Haudenosaunee asserted 1701 Nanfan treaty lands nor our ancestors' archaeological heritage be succumb to subpar minimalist methods or tactics. The archaeology cannot proceed under conditions such as this and is outright wrong for Imperial Oil to force us into doing.

Wayne

On Wed, May 8, 2019 at 11:37 AM Jenna Down <Jenna.Down@erm.com> wrote:

Hi Wayne, thank you for your email. Please allow me to clarify.
Currently there are 17 Past Recovery archaeologists and 8 ASI archaeologists on site. We also have 2 ERM Field Directors - Chris Thorne and Tiffany McLellan. As it is Tiffany's first day she is shadowing Dan Walker to ensure she effectively trained on this very complex project. Cortney Blackburn is also on site with TGH (safety consultants) to ensure safety around locates as well as field personnel. Please note, all archaeologists on site are qualified to excavate and are either in

the process of completing a degree in Archaeology or are in possession of an Archaeology degree. As we have only been in the field for one short block of 6 days, and beginning our second block with unpredictable weather coupled with scheduling complexities, we appreciate your patience and understanding as we work hard to find the best solutions to meet the expectations of all First Nation communities, Imperial, UPI, archaeologists as well as the ERM team.

Thank you again and I hope I have resolved your concerns. Speak soon,
Jenna

From: Wayne Hill <tworowarchaeology@gmail.com>

Sent: Wednesday, May 8, 2019 10:47 AM

To: Jenna Down <Jenna.Down@erm.com>; Williams, Andrea (MTCS) <Andrea.Williams@ontario.ca>; <Katherine.Cappella@ontario.ca> <Katherine.Cappella@ontario.ca>

Cc: Consultation.calgary@woodplc.com; Dawn LaForme <dlaforme@sixnations.ca>; Joanne Thomas <jthomas@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Maxime Picard <maxime.picard@cnhw.qc.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>; Todd Williams <williams.todde@gmail.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>; Joelle Williams <Joelle.Williams@mncfn.ca>

Subject: Re: Archaeology- May 9

Good morning,

The HDI has also learned there is 30 field staff on site. This was not indicated in previous emails or memos provided. I respectfully ask to cease and desist archaeological excavations and furthermore the extra people are not qualified field staff lacking archaeological field experience. This is unacceptable considering the sensitivity and importance for this project since there has already been raised questions and concerns about the efficiency of stage 2 test pitting for identifying archaeological potential.

This will not used as an archaeological training exercise especially considering there has been no engagement.

Thanks Wayne,

On Wed, May 8, 2019 at 10:20 AM Joelle Williams <Joelle.Williams@mncfn.ca> wrote:

Good morning Jenna,

Please let me know, at you earliest convenience, if you plan to return to site tomorrow and what the crew numbers will be. The FLR on site today reported their was close to 30 people on site today.

Thank you,
Joelle

From: Jenna Down [mailto:Jenna.Down@erm.com]

Sent: Friday, May 3, 2019 7:03 PM

To: Consultation.calgary@woodplc.com; Dawn LaForme; Joanne Thomas ; Joelle Williams; Williams, Kelly /C; Maxime Picard ; Megan DeVries; Todd Williams ; Wayne Hill

Cc: Curtis Campbell; Matthew Scoular; Mark Welsh; Daniel Walker

Subject: Archaeology- Wednesday May 8

Hello,

From: [Jenna Down](#)
To: [Joanne Thomas](#); Joelle.Williams@mncfn.ca; [Projectmail - Wood E&I Calgary - Consultation](#); [Dawn LaForme](#); [Williams, Kelly /C](#); maxime.picard@cnhw.qc.ca; Megan.DeVries@mncfn.ca; williams.todde@gmail.com; [Wayne Hill](#)
Cc: [Curtis Campbell](#); [Matthew Scoular](#); [Mark Welsh](#); [Daniel Walker](#); [Nicole Bishop](#); [Williams, Kelly /C](#); [Murillo, Breanna K /C](#)
Subject: RE: Archaeology- May 9
Date: Wednesday, May 8, 2019 4:53:43 PM
Attachments: [image001.jpg](#)
[image002.png](#)

Hi Joanne, sorry for the delay and thank you for your note.

Imperial will be sending a response to your concern shortly.

Best,
Jenna

From: Joanne Thomas <jthomas@sixnations.ca>
Sent: Wednesday, May 8, 2019 11:48 AM
To: Jenna Down <Jenna.Down@erm.com>; Joelle.Williams@mncfn.ca; Consultation.calgary@woodplc.com; Dawn LaForme <dlaforme@sixnations.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; maxime.picard@cnhw.qc.ca; Megan.DeVries@mncfn.ca; williams.todde@gmail.com; Wayne Hill <tworowarchaeology@gmail.com>
Cc: Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Mark Welsh <Mark.Welsh@erm.com>; Daniel Walker <Daniel.Walker@erm.com>; tworowarchaeology@gmail.com; Williams, Kelly /C <kelly.williams@esso.ca>
Subject: RE: Archaeology- May 9

Hi jenna

My monitor has just informed me of the issue of the amount of people on site and how they are inexperienced because a show and tell session was held after the tailgate meeting.

I am concerned about the ratio of field crew to my monitor. 30 to 1 is quite a difference. New credit and the HDI have their own different process of monitoring and we do not represent each other in any way.

So in the near future I will be using this site to train my new monitors one at a time along with my experienced monitor. I will ensure they have the right online safety. This issue needs to be addressed with all.

JT

Sent with BlackBerry Work
(<https://clicktime.symantec.com/3QaWhAtZhyfiJiTJZibaTcf6H2?u=www.blackberry.com>)

From: Jenna Down <Jenna.Down@erm.com>

From: [Williams, Kelly /C](#)
To: [Jenna Down](#); [Malone, Jessie M](#); [Murillo, Breanna K /C](#); b.kennett@pastrecovery.com
Cc: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles -Imperial Oil Limited
Date: Wednesday, May 15, 2019 1:51:59 PM

My apologies-I forgot to cc. -klw

From: Williams, Kelly /C
Sent: Wednesday, May 15, 2019 3:51 PM
To: Joanne Thomas <jthomas@sixnations.ca>
Cc: 'Lonny Bomberry' <lonnybomberry@sixnations.ca>; 'Dawn LaForme' <dlaforme@sixnations.ca>
Subject: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles -Imperial Oil Limited

Dear Joanne,

I hope you are doing well. There has been quite a lot of activity on Imperial projects and I appreciate the time and effort you have spent working with our team to ensure monitor participation. Moving forward, Past Recovery is implementing some changes to the field crew for the Stage 2 Program and has provided the following explanation. Let me know if you have any questions. Thanks!

To date, Past Recovery and ASI archaeologists have been working together as a single crew. This single crew has allowed Past Recovery's Field Directors (and upper management) to evaluate the skills and technical expertise of ASI's Field Directors. Through assessing ASI's field Directors, Past Recovery ensures consistency in adhering to MTCS S&Gs, while including First Nation monitors and FLRs in discussions regarding appropriate fieldwork conditions, the assessment of archaeological potential, and testing methodology.

Going forward, there will be a dedicated ASI field crew, led by an ASI Field Director in addition to a dedicated Past Recovery field crew, led by a Past Recovery Field Director. The ASI field crew will work Monday to Friday and the Past Recovery field crew will work 10 on 4 off. ERM Field Leads will continue to accompany both crews. Past Recovery will maintain control over the Stage 2 archaeology program, including all supervision of the fieldwork. All ASI field staff have completed, or are in the process of completing, a degree in anthropology, archaeology or another related discipline and include two First Nation archaeologists.

Past Recovery's Field Directors will be checking in with ASI Field Directors on a regular basis and will be visiting the ASI crew often. If issues arise during fieldwork that cannot be resolved, these locations will be deferred until a Past Recovery Field Director can be present to assess the situation in person.

Past Recovery's Field Directors will be reviewing all of ASI's field notes, field photographs and fieldwork mapping to ensure that these meet Past Recovery's standards for the project. Past Recovery will maintain full responsibility of the Stage 2 reporting including the analysis of artifacts and the development of recommendations. First Nation communities will continue to be involved in the development of appropriate recommendations for any sites documented during the Stage 2 fieldwork and will be provided with a draft of the Stage 2 report for review.

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell

McArthur, Cheryl

From: Jenna Down <Jenna.Down@erm.com>
Sent: May 30, 2019 5:08 PM
To: Joanne Thomas
Cc: Kelly Williams; Daniel Walker
Subject: RE: Meeting location - Urban Court, Etobicoke

Hi Joanne, would love to chat to you, give me a call when you're free.

Today was a difficult one. First thing this morning the crews encountered a parcel where utility flags were removed by a lawn mower. This was the Redwater Drive meeting location. Since the crews could not assess the parcel without flags they went to the second parcel. This was the 50 Ronson Road meeting location. Unfortunately this lot was only open to employees (the aerial image did not share this information!). During the move some monitors drove over to 200 Ronson Road. However, ERM was given a stern talking-to about parking at this lot as we do not have land access permission. As a result, we had to find a third location. This was the Urban Court meeting location. The crew stayed here for the rest of the afternoon.

As you can imagine the logistics of a crew this size combined with finding a safe and large enough lot for 40 cars (with access permissions!) has been challenging. I appreciate your patience and I apologize for the back and forth this morning - some days are more difficult than others.

In regards to Past Recovery working with Monitors, yes they have worked with monitors before – however there appears to be some personality conflicts on the PR crew. I am truly disappointed that your monitor experienced a comment from the Field Director. I was made aware of this situation on Friday and called each of the Field Directors personally to express how disrespectful the language was. As we move forward I hope this will be the last instance of staff being condescending to all FN monitors.

I echo your point when you say, I hope we can work together to communicate in a very positive manner.

Have a nice evening Joanne.

Jenna

From: Joanne Thomas <jthomas@sixnations.ca>
Sent: Thursday, May 30, 2019 3:02 PM
To: Jenna Down <Jenna.Down@erm.com>
Cc: Kelly Williams <kellywilliams@sixnations.ca>
Subject: RE: Meeting location - Urban Court, Etobicoke

Jenna,

I was told by my monitor that he was at 50 Ronson with the rest of the crew and all of a sudden they all pulled out. He was left there and decided to drive by the site and only New Credit monitors were there. He decided to stay together and wait. The first he heard of the move to Urban Street Etobicoke was from me after I got your email. Tiffany did apologize for the "severe MIA communication". What is going on? Is it an in-office thing or is it occurring out in the field?

Has Past Recovery ever worked with archaeological monitors before? I noticed your company specializes in Eastern Ontario Archaeology. From your website I noted that Past Recovery had a relationship with the Algonkians and the Mohawks from Akwesasne. But you must realize that all First Nations peoples are not the same. Each are distinctive in

their own ways. My Monitors are very educated and have many years of experience in working with all archaeological companies from Southern Ontario. I have personally run this monitor program since 2007.

I find there is so much confusion out there regarding instructions of sites. Do we know what the problem is? Also, the treatment of your field directors (FD) are not appropriate when discussing issues on site such as Caitlyn Howard telling the monitors that they are “overthinking” the issues. I did find this not proper and the FD judging the competence of my monitors.

I hope we can work together to communicate in a very positive manner.

JT

Joanne Thomas

Consultation Supervisor
Six Nations of the Grand River
Phone: 519-753-0665
Fax: 519-753-3449
Email: jthomas@sixnations.ca

From: Jenna Down [mailto:Jenna.Down@erm.com]
Sent: May 30, 2019 11:16 AM
To: Jenna Down <Jenna.Down@erm.com>
Subject: Meeting location - Urban Court, Etobicoke

Hi, we are moving the crew to Urban Court, Etobicoke. For Directions, please click [HERE](#)

Overflow parking will be in Newlove Court (northeast of Urban Court) – Click [HERE](#)

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Permitting and Procedural Order
Date: Tuesday, June 18, 2019 8:11:26 AM
Attachments: [190617 Environmental Permitting Overview.pptx](#)
[PO2 Imperial LTC 20190610.pdf](#)

From: Williams, Kelly /C

Sent: Tuesday, June 18, 2019 10:08 AM

To: 'Joanne Thomas' <jthomas@sixnations.ca>

Cc: 'Lonny Bomberry' <lonnybomberry@sixnations.ca>; 'Paul General' <pgeneral@sixnations.ca>; 'Matthew Jocko' <mjocko@sixnations.ca>; Dawn LaForme <dlaforme@sixnations.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Nicole Bishop <Nicole.Bishop@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>

Subject: Waterdown-Finch Project-Imperial Oil Ltd-Permitting and Procedural Order

Hi Joanne,

The Leave to Construct Application is progressing with the Ontario Energy Board for Imperial's Waterdown to Finch Project. The OEB issued a Procedural Order on May 31, 2019, which confirmed intervenors and procedural dates. A revision to the Procedural Order (No.2) was issued on June 10, 2019, in response to an extension request from the City of Mississauga and details the following procedural dates:

July 15 – OEB/intervenors to issue list of Information Requests (IRs) to Imperial

August 6 – Imperial responses (electronic and hard copy) are required

August 16 – Imperial to receive written hearing submission from OEB and intervenors

August 26 – Imperial to provide written hearing responses to OEB

Please see copy of PO No.2 attached. Additional documentation related to the hearing process can be found on the OEB's website [HERE](#).

Also attached is information regarding the Project's overall environmental permitting process, as well as permit-specific details required for the Project.

Let me know if you have any immediate questions about this information. If you would like to have a meeting with the project team, please provide a few dates and we would be happy to meet in person to discuss any aspects of the Project that may be of concern to the Six Nations of the Grand First Nation.

Best regards,

Kelly Williams

Community Relations Officer

602 Christina Street

Sarnia, ON Canada N7T 7M5

519-328-8681 Cell

kelly.williams@esso.ca

Imperialoil.ca

From: [Williams, Kelly /C](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Waterdown-Finch-Imperial Oil Ltd-2019 Environmental Field Program
Date: Thursday, June 20, 2019 2:15:35 PM
Attachments: [watfin env field scope - final draftkw.DOCX](#)

From: Williams, Kelly /C

Sent: Thursday, June 20, 2019 4:06 PM

To: 'Joanne Thomas' <jthomas@sixnations.ca>

Cc: Dawn LaForme <dlaforme@sixnations.ca>; 'Matthew Jocko' <mjocko@sixnations.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Nicole Bishop <Nicole.Bishop@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>

Subject: Waterdown-Finch-Imperial Oil Ltd-2019 Environmental Field Program

Hi Joanne,

Please see the attached information regarding the 2019 Field Program for the Waterdown-Finch Project. If you would like to have a monitor from Six Nations participate in the field work, ERM will be the contact for logistics. Please review and let me know how you would like to proceed and if you have any questions.

Best regards,

Kelly Williams

Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: July 29, 2019 8:07 AM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Murillo, Breanna K /C
Subject: FW: WFP Stage 2 Field Testing WTFN4030
Attachments: ERM_Eastgate Pwky and Dixie Rd WTFN4030.pdf; WFP Stage 2 in Disturbed areas.pdf

From: Brenda Kennett [<mailto:b.kennett@pastrecovery.com>]
Sent: Friday, June 21, 2019 9:09 AM
To: b.kennett@pastrecovery.com
Cc: 'Daniel Walker' <Daniel.Walker@erm.com>; 'Jenna Down' <Jenna.Down@erm.com>; 'Lisa Merritt' <LMerritt@asiheritage.ca>
Subject: WFP Stage 2 Field Testing WTFN4030

Good morning,

As we work through and up-date protocols for the Stage 2 field program we are attempting to respond to your requests for timely documentation related to fieldwork. Going forward, Past Recovery will aim to provide your offices with information in support of fieldwork discussions, decisions and progress at regular intervals. While we develop a more comprehensive reporting protocol, we wanted to address specific issues related WTFN4030 that arose this week.

On the WFP project, we have many locations where extensive areas of disturbance and/or deep fill are presenting challenges for the Stage 2 field testing program as standard shovel test pits on a 5 m grid is not an effective or appropriate assessment methodology. As such, we have prepared a general methodology for how we propose to test these areas (WFP Stage 2 in Disturbed areas – attached). This protocol is in compliance with the MTCS Standards and Guidelines (2011).

With specific reference to WTFN4030, where the ASI crew was working on June 19, a more detailed review of background information has been prepared (ERM_Eastgate Pkwy and Dixie Rd WTFN4030 - attached) in support of the Stage 2 testing methodology for this parcel. We hope that this document addresses any concerns raised in the field on Wednesday and will permit the testing of this parcel to proceed accordingly.

If there are any questions or comments related to either the general methodology or the specific information for WTFN4030, please do not hesitate to contact me.

We join you in recognizing and celebrating National Indigenous Peoples Day today!

With thanks,

Brenda

Brenda Kennett, M.A.
Principal
Past Recovery Archaeological Services Inc.
99C Dufferin Street
Perth, ON K7H 3A5

Phone: 613-267-7028
Mobile : 613-331-2544

Métis Nation of Ontario

Imperial Waterdown to Finch Pipeline Replacement Project April 6, 2019 10:00am Métis Nation of Ontario Office Meeting Summary	
Participants	
<i>Métis Nation of Ontario</i> <ul style="list-style-type: none"> • Ted Cousins, Consultation Assessment Coordinator • Todd Ross, Chair Toronto and York Region Métis Council • Karen Derocher, Consultation Committee • Marcel, Métis Nation of Ontario member 	<i>Imperial</i> <ul style="list-style-type: none"> • Kelly Williams, Community Relations Officer • Corinne Thiessen, Stakeholder Relations • Jessie Malone, Environment and Regulatory Advisor (phone)
Objective(s)	
<ul style="list-style-type: none"> • To inform the Métis Nation of Ontario Consultation Committee about the Waterdown-Finch Project 	
Topic	Discussion
Project Presentation	<p>Imperial provided a presentation on the project, which included maps of the pipeline path, methods of construction, regulatory process and permitting, and projected schedule. Questions and comments were addressed during the presentation and included the following:</p> <ol style="list-style-type: none"> 1. How does the unrefined product reach the Sarnia refinery? Post-meeting update: <i>Product reaches the Sarnia refinery by pipeline, barge and rail.</i> 2. Who operates the line from Sarnia to Waterdown? <i>Enbridge.</i> 3. How much will the new line deviate from the current path? <i>The plan is to stay within the current right of way and optimize the path to improve the safety and operation of the line.</i> 4. What will be done to the existing line? <i>The existing line will be left in place, filled with nitrogen gas and continuously monitored.</i> 5. What is the in situ strategy for the existing line? Post-meeting update: <i>The deactivated pipe will be removed from service, cleaned, filled with nitrogen (like what we put in our car tires), and left in place. Deactivation is undertaken to reduce environmental impacts (soil stability, slope stabilization and settlement issues), avoid short and long-term community construction impacts and minimize safety risk for other pipelines sharing the right-of-way. Imperial deactivates pipeline segments in accordance with industry best practices (Canadian Standards Association’s Oil and Gas Pipeline Systems Code) and provincial regulations (Technical Standards and Safety Act). Imperial is responsible for paying for the maintenance and monitoring of this segment of deactivated pipeline. Imperial remains responsible for</i>

ongoing monitoring, line identification and crossing management of the deactivated line.


6. Can you provide information on the coating and any environmental impacts?

Post-meeting update:

- *The coating life will be the same as the design life of the pipeline: > 50 years.*
- *The Fusion Bonded Epoxy (FBE) and three layer polyethylene (3LPE) are thermosetting epoxy/polymers that adheres firmly to pipe during the extrusion process and being extremely resistant, ensures it does not decompose under varied soil conditions or attacked by micro-organisms.*
- *The coating will undergo stringent QA/QC tests, including adhesion and disbondment tests, during manufacture in accordance to industry and company standards.*
- *Any coated joint of pipe exhibiting partial or complete failure of the coating will be rejected.*
- *Post pipe mill, the coated pipe will be transported and stored onsite under proper weather conditions and with separators to eliminate frictional damage to pipe coating.*
- *All coating will be holiday tested in the field to detect and repair any pinhole defects before pipe is installed.*
- *Pipe will be protected from corrosion by its own coating and cathodic protection using external impressed currents.*
- *In the extremely rare event that there is coating degradation, the coating performance will be reduced leading to an increase in the monitored value of impressed current. The affected pipe section will be traced and defective coating removed and replaced.*
- *In addition, monitoring wells are installed in the vicinity of the pipe route and samples will be analyzed to determine if there are any contaminants from coating degradation.*

7. What are the potential impacts of the various construction methods on ground water?

The replacement pipeline will be built using two construction methods: trenched and trenchless. For trenched construction, a trench will be dug in which to lay the pipe, which in some areas may be below the groundwater level. In these areas, the water will need to be removed from the trench in order to safely install the pipeline. Imperial is working with the Ministry of Environment, Conservation and Parks to obtain a Water Taking Permit that will allow this water to be removed from the trench and safely discharged to the environment. Trenchless construction will be used in sensitive areas (e.g. watercourses and wetlands) to avoid surface disturbance. Dewatering of groundwater related to trenchless construction will mostly be limited to removal of any water that may build up on the workspace. Additionally, Imperial has reviewed groundwater wells in proximity to the construction footprint and has evaluated potential impact to these wells. A potential impact may include a temporary reduction in groundwater supply in wells with a shallow water level (less than 4 metres below ground surface). The Water Taking Permit application includes a detailed assessment of potential impacts to groundwater and details planned

	<p><i>mitigation measures, including monitoring of groundwater quality and quantity pre-, during and post-construction.</i></p> <p>8. Is there a plan to add more valves to the line? <i>The plan is to match the existing number and locations of the valves and then to conduct a study to optimize the number and placement of the valves. This study will follow the established safety code and will be reviewed and approved by the regulator to ensure all safety requirements are met.</i></p> <p>9. Do you have a report of all potential waterways near the project, including buried rivers? The MNO would like a copy of the maps if they are readily available. <i>A recording of this information is provided in the Environmental Report that was prepared for the project application. It will be publically available. Post-meeting update: Imperial provided access information for the Environmental Report to the MNO.</i></p> <p>Further discussion:</p> <p>10. The MNO would like further information on Imperial's position on Carbon Pricing and reducing environmental impact.</p> <div style="text-align: center;">  energy_carbon_summary.pdf </div> <p>Post-meeting update:</p> <p>11. MNO would also like to the opportunity to participate in Imperial's community investment programs. Particularly in the areas of employment and training of its members and working with Metis owned companies. Imperial to provide information on potential community investment opportunities for MNO participation. Imperial to inform MNO about potential project construction opportunities for MNO membership.</p>
MNO Presentation	<ul style="list-style-type: none"> Ted Cousin provided a presentation on the history and evolution of the Métis Nation of Ontario.

Follow-ups

Item #	Follow-up	Responsible	Timeline
1	Imperial to provide information on potential community investment opportunities for MNO participation.	Kelly/Corinne	ASAP
2	Imperial to inform MNO about potential project construction opportunities for MNO membership.	Kelly	As avail.

Imperial Oil Limited has applied to the Ontario Energy Board for approval to construct 63 kilometres of pipeline and associated infrastructure to transport refined oil products from its facility in the City of Hamilton to its facility in the City of Toronto.

Learn more. Have your say.

If approved, the proposed pipeline would replace existing transportation capabilities of refined oil products (gasoline, diesel fuel and jet fuel) between Imperial Oil Limited's Waterdown Pump Station in the City of Hamilton to its Finch Terminal in North York in the City of Toronto. The pipeline and associated infrastructure are located in the City of Hamilton, the City of Burlington, the Town of Milton, the Town of Oakville, the City of Mississauga, and the City of Toronto, as shown in the map below.

Imperial Oil Limited is also asking the Ontario Energy Board to approve the form of agreement it offers to landowners to use their land for location and construction of the proposed pipeline.

on the case. We will also hear questions and arguments from individual consumers, municipalities and others whose interests would be affected. At the end of this hearing, the OEB will decide whether to approve the application.

As part of its review of this application, the OEB will assess Imperial Oil Limited's compliance with the OEB's Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario.

The OEB advises Indigenous communities that the OEB's process for this application may serve as a component of the Crown's duty to consult for this project.

The OEB is an independent and impartial public agency. We make decisions that serve the public interest. Our goal is to promote a financially viable and efficient energy sector that provides you with reliable energy services at a reasonable cost.

BE INFORMED AND HAVE YOUR SAY

You have the right to information regarding this application and to be involved in the process.

- You can review the application filed by Imperial Oil Limited on the OEB's website now.
- You can file a letter with your comments, which will be considered during the hearing.
- You can become an active participant (called an intervenor). Apply by **May 6, 2019** or the hearing will go ahead without you and you will not receive any further notice of the proceeding.
- At the end of the process, you can review the OEB's decision and its reasons on our website.

LEARN MORE

Our file number for this case is **EB-2019-0007**. To learn more about this hearing, find instructions on how to file letters or become an intervenor, or to access any document related to this case, please enter the file number **EB-2019-0007** from the list on the OEB website: <http://www.oeb.ca/noticeltc>. You can also phone our Consumer Relations Centre at 1-877-632-2727 with any questions.

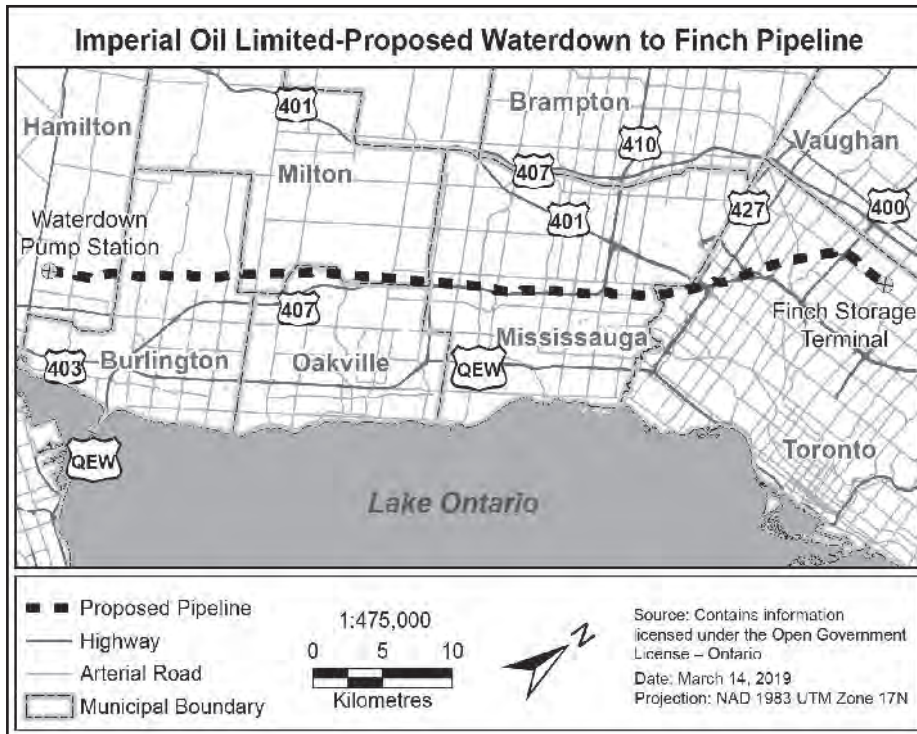
ORAL VS. WRITTEN HEARINGS

There are two types of OEB hearings – oral and written. The OEB intends to proceed with this application by way of a written hearing. If you think an oral hearing is needed, you can write to the OEB to explain why by **May 6, 2019**.

PRIVACY

If you write a letter of comment, your name and the content of your letter will be put on the public record and the OEB website. However, your personal telephone number, home address and email address will be removed. If you are a business, all your information will remain public. If you apply to become an intervenor, all information will be public.

This hearing will be held under sections 90(1) and 97 of the Ontario Energy Board Act, 1998, S.O. 1998, c.15 (Schedule B).



THE ONTARIO ENERGY BOARD IS HOLDING A PUBLIC HEARING

The Ontario Energy Board (OEB) will hold a public hearing to consider the application filed by Imperial Oil Limited. During the hearing, we will question Imperial Oil Limited



Ontario

Ontario Energy Board / Commission de l'énergie de l'Ontario

Appendix B – Part 2

Supporting Documents for Regulatory Agencies and Stakeholders

(documents are organized by Record of Contact (ROC) number)

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- At the end of the process, you can review the OEB's decision and its reasons on our website.

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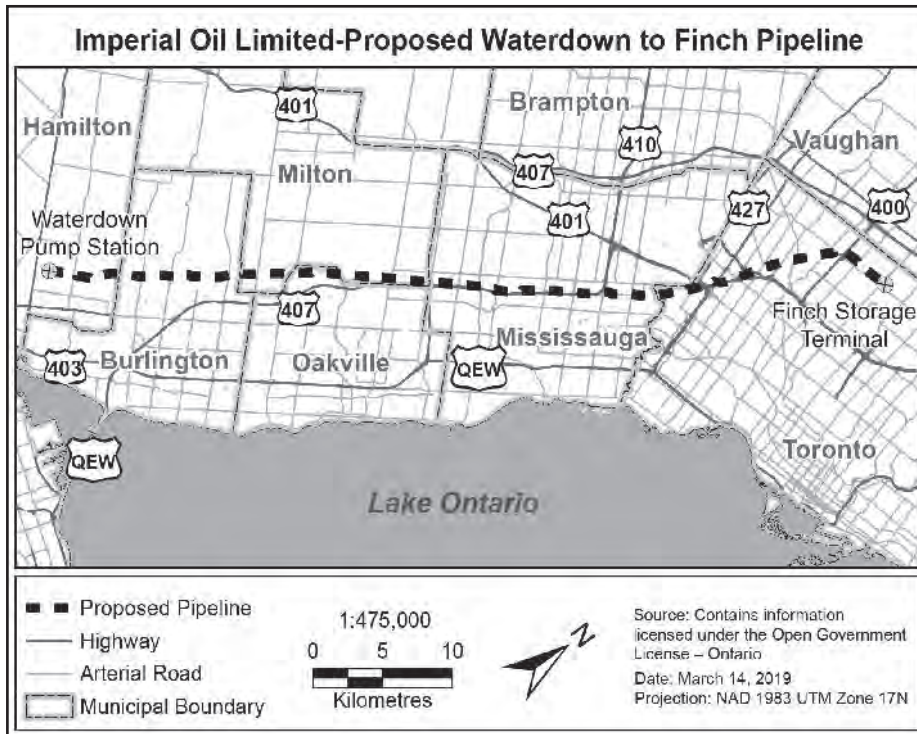
ORAL VS. WRITTEN HEARINGS

There are two types of OEB hearings – oral and written. The OEB intends to proceed with this application by way of a written hearing. If you think an oral hearing is needed, you can write to the OEB to explain why by **May 6, 2019**.

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THE ONTARIO ENERGY BOARD IS HOLDING A PUBLIC HEARING

The Ontario Energy Board (OEB) will hold a public hearing to consider the application filed by Imperial Oil Limited. During the hearing, we will question Imperial Oil Limited



Ontario

Ontario Energy Board / Commission de l'énergie de l'Ontario

From: [Imperial in Ontario](#)
To: "Bryne Emeneau"
Subject: RE: Follow up, Pipeline Patrol Activities Re: HDD Precaution Planning, Re: Sarnia Petroleum Products Pipeline Replacement, Waterdown to Finch
Date: Monday, February 11, 2019 9:26:03 AM

From: Bryne Emeneau <bemeneau@sympatico.ca>
Sent: February 4, 2019 3:04 PM
To: Imperial in Ontario <questions@imperialon.ca>
Subject: Re: Follow up, Pipeline Patrol Activities Re: HDD Precaution Planning, Re: Sarnia Petroleum Products Pipeline Replacement, Waterdown to Finch

Hi Corinne:

Thank you for the email and answers to the questions; all good info, and progressive stance on Imperial's part for pipeline integrity. On the SPPL, is/was there an integrity situation at the Credit River crossing, that led to a contingency plan? I read a local newspaper article suggesting that a petroleum product pipeline situation had occurred creating a need for immediate corrective actions. I'll connect with you in early April regarding the future meeting.

Thanks, Bryne
289-795-2635

On Feb 4, 2019, at 11:43 AM, Imperial in Ontario <questions@imperialon.ca> wrote:

Bryne,

I hope you are doing well. We have compiled responses to your questions, and look forward to meeting in person when you are back in April to continue the conversation.

As mentioned, Imperial anticipates filing a Leave to Construct application for the Waterdown to Finch Project with the Ontario Energy Board (OEB) in the first quarter of 2019. The Leave to Construct includes an Environmental Report and will be posted on the OEB applications website and Imperial's website. In addition to the OEB process, multiple permit applications will be filed with regulatory agencies.

In regards to integrity, the Sarnia Products Pipeline (SPPL) segment between Waterdown Station and Finch Terminal, has operated safely since it was installed. The Waterdown to Finch Project is a proactive initiative to construct and operate a new pipeline that will replace the existing SPPL segment to support continued safe, reliable, and environmentally responsible transportation of products. To provide the critical supply of products to the Greater Toronto and Hamilton Area, the existing SPPL segment will continue to operate until the new line is installed, tested and commissioned. Our monitoring and maintenance programs are part of how we keep our pipelines safe and are compliant with TSSA requirements. Our monitoring and maintenance programs are in place for the existing line and will extend to the new line. This includes regular pipeline inspection tool runs, such as the use of Smart Balls, ground patrols by vehicle, weekly aerial flyovers and 24 hour pressure monitoring. Anomalies identified by any of these activities are taken very seriously and further inspection is done, which may include an integrity dig if needed. Imperial is responsible for the integrity of all of its pipelines and will continue to be responsible for the existing line even after deactivation.

You asked about the Humber River location near Albion Road. Imperial has conducted a Phase 1 Environmental Site Assessment (ESA) through a review of targeted Environmental

Risk Information Services (ERIS) reports and site visits. The ESA is intended to meet the requirements of the *Infrastructure Ontario Class Environmental Assessment for Public Works* for the Project within the Hydro One Networks Inc. corridor (HONI). The scope of the ESA considered the sites within the HONI corridor where the line will be installed, including the planned pipeline crossing of the Humber River. Although no impacts were flagged in this area, it does not preclude the presence of or potential for impact discovery and Imperial is taking proactive measures to be prepared in the event that contaminated material is encountered during construction. Prior to construction, Imperial will develop a Contaminated Material Management and Handling Plan. This plan will include details around identification, management, and disposal of impacted material. This plan will be implemented if evidence of potential contamination is found during construction activities.

From a design perspective, Horizontal Directional Drilling (HDD) will be used for sensitive areas, like major watercourses, and the drill paths are being designed to an appropriate depth below the watercourse. The HDD designs are based on a desktop geomorphology and scour assessment for watercourse crossings. The final design will include the results of a geotechnical investigation.

Thank you for making us aware that Bronte Creek at Lowville Park is a TUC National Demonstration Project.

We appreciate your interest in the Waterdown to Finch Project, as well as the questions and comments. More information is available on our project website at www.imperialoil.ca/waterdowntofinch

Please let us know when you are available to coordinate a meeting with our project team.

Best regards,

Corinne Thiessen

Stakeholder Engagement Regional Lead

Canada Fuels Operations, Imperial

imperialoil.ca | [Twitter](#) | [YouTube](#)

From: Bryne Emeneau <bemeneau@sympatico.ca>

Sent: January 4, 2019 1:25 PM

To: Imperial in Ontario <questions@imperialon.ca>

Subject: Follow up, Pipeline Patrol Activities Re: HDD Precaution Planning, Re: Sarnia Petroleum Products Pipeline Replacement, Waterdown to Finch

Hi Corinne:

Thanks for your reply and indication of how the pipeline replacement process will transpire. It is inspiring to read of Imperial's shared priorities including environmental protection for watersheds which the SPPP operates in, including the Humber River, a Canadian Heritage river.

One of the pipeline integrity management areas where Imperial may consider review required, is Pipeline Patrol Activities. This matter arose following a 2014 May 31 petroleum product spill event at the multi pipeline ROW Albion Road crossing of the Humber River tributaries. That event, with unidentifiable source, was investigated by the NEB due to involvement of an Imperial associated pipeline: TNPI; TNPI's pipeline operation at the time, was found to be satisfactory by NEB staff, regarding that event. But since that time, NEB has found TNPI's pipeline patrols to be less than satisfactory.

From: [Malone, Jessie M](#)
To: [Roger Goulet](#)
Cc: [Thiessen, Corinne E](#)
Subject: RE: Imperial Pipeline Replacement Project Waterdown to Finch
Date: Thursday, February 14, 2019 12:06:15 PM

Roger,

I hope you are doing well. We have compiled responses to your questions below as well as provided a link to the FTP website where the Environmental Report (ER) is available for download. The ER was submitted as part of the Leave to Construct pre-application filing to the OEB on February 1st. Imperial anticipates filing the full Leave to Construct application for the Waterdown to Finch Project in the next few weeks.

1. Pipeline Depth:

The depth of the pipeline will vary depending on which installation method is used (i.e., trenched or trenchless). The minimum depth of installation will be 1.2 metres (trenched) and will be greater using trenchless methods. Bores are typically 2 metres in depth and horizontal directional drills vary in depth from 10 to 50 metres.

There may be areas in which the trenched construction of the pipeline will encounter bedrock, in which case the bedrock will be excavated to achieve the designed burial depth. The trenchless construction is expected to encounter and will drill through bedrock in many areas.

2. Trenching:

The time frame that a particular location of a pipeline trench is open is dependent on many factors, with an estimated range of 15 to 30 days. Soil compaction and, if needed, trench breakers such as sandbags, foam or compacted clay can be installed in the trench to control potential water flow.

3. Monitoring of PSWs and salamander breeding ponds:

Imperial remains actively engaged with the Ministry of Natural Resources and Forestry (MNRF) regarding Project activities that may occur within and adjacent to Jefferson Salamander Regulated Habitat, and any monitoring that will be required before and during construction. Many of the areas identified as Jefferson Salamander Regulated Habitat will be avoided by constructing the pipeline using trenchless methods. Further, within proximity to the areas identified as Jefferson Salamander Regulated Habitat, construction will occur in the late fall or winter (contingent on permit approvals) to avoid potential impacts on individuals.

Impacts on water levels in many PSWs will be avoided by constructing the pipeline using trenchless methods. Permits will be obtained from the respective Conservation Authorities for work that may affect wetlands, and Imperial will complete all required monitoring.

4. Permit to Take Water:

Imperial will prepare and implement a Water Management Plan that will include management and contingency measures to avoid or minimize effects on surface water and groundwater. Imperial has consulted with the Ministry of the Environment, Conservation and Parks (MECP) and a Water Taking Permit will be required and obtained for the Project.

5. Jefferson Salamander Regulated Habitat:

Construction will be required within Jefferson Salamander Regulated Habitat, however there will be no direct impact on known vernal pool breeding areas. Construction within these areas will occur during the late fall or winter (contingent on permit approvals) to avoid disruption of Jefferson Salamander breeding.

6. Proximity to Enbridge:

Typically, the Imperial pipeline will be 15 to 20 metres from the Enbridge pipeline within the Niagara Escarpment. Imperial is in communication with Enbridge regarding the Project.

7. Temporary Workspace and Deactivation:

Typically, the work area for trenched construction will be 25 metres, and the endpoints of trenchless construction (entry and exit areas) will require additional workspace ranging from 15 to 35 metres wide and 30 to 60 metres long. The temporary workspace will vary based on the method of construction. Refer to the Environmental Report, particularly Appendix A for typical drawings.

Deactivation of the existing pipeline will take place after the new pipeline is safely installed and in service. An application and a schedule for the deactivation will be developed.

8. Niagara Escarpment / Mount Nemo Plateau:

Construction within these areas is planned for the late fall or winter (contingent on permit approvals).

9. Natural Heritage Areas:

Natural heritage features are discussed in Section 4.3 of the Environmental Report, and mitigation measures to be implemented to avoid or minimize the potential negative effects of the Project on natural heritage features, functions and their protected species are discussed in Section 5.3 of the Environmental Report.

10. Grindstone Creek Headwaters Complex PSW:

Environmental Report Appendix D: Environmental Features Map and an earlier version of this map provided to PERL by Imperial, is based on Ontario's Land Information (LIO) dataset. Imperial has confirmed with the MNRF that the LIO dataset identifies the wetlands around the Mount Nemo Tributary 2 as being a component of the Grindstone Creek Headwaters Complex Provincially Significant Wetland (PSW). The pipeline crossing of Mount Nemo Tributary 2 is planned for trenchless construction. The riparian wetlands crossed by the Project around Mount Nemo Tributary 1 are not identified as PSW in the LIO dataset, and the MNRF has confirmed that the mapping used in the Environmental Report, which is based on the LIO dataset, is accurate. The pipeline crossing of Mount Nemo Tributary 1 is planned

for trenched construction.

11. Mount Nemo Trib 2A & Species at Risk:

The bore method to be used to cross Mount Nemo Trib 2A (8+000) is conventional, by which pits are excavated on each side of the crossing to accommodate the boring equipment, then a hole is bored between the pits and the pipeline is pulled through the bored hole. If necessary, the pits will be protected with shoring.

Imperial has and continues to consult with the MNRF regarding compliance with the Ontario Endangered Species Act during construction of the Project. Imperial will implement mitigation measures to avoid or minimize effects on Species at Risk and Regulated Habitat (refer to Section 4.3.4 and 5.3.4 of the Environmental Report), and maintain compliance with the Endangered Species Act.

12. Horizontal Direction Drill:

There may be areas in which the trenchless construction is expected to encounter bedrock, although it is not known at this time if this will include limestone rock formations. Geotechnical investigations are ongoing to determine the bedrock formations and to design the depth of the horizontal drills and other trenchless construction methods.

13. Drilling Fluids:

During trenchless construction of the pipeline, fresh water from municipal sources and a non-hazardous drilling additive (typically bentonite clay) will be used.

14. Niagara Escarpment Development Permit:

Imperial consulted with the Niagara Escarpment Commission (NEC) and a Development Permit is required for the Project. Imperial will prepare a Development Permit application and submit it to the NEC for review and approval prior to commencing Project construction in the Niagara Escarpment Planning Area.

The Sarnia Products Pipeline is important infrastructure that provides products used by households and businesses across the Greater Toronto and Hamilton Area. This proactive replacement will support the continued safe and reliable supply of the fuels that keep people, goods and services moving throughout our region. Imperial has the same concerns as people everywhere – how to provide the world with the energy it needs while reducing greenhouse gas emissions. We are committed to positive action on climate change and dedicated to reducing the risk in the most efficient way for society. Please visit imperialoil.ca/climatechange to learn more.

We appreciate your interest in the Waterdown to Finch Project, and welcome any further questions and comments. Please let us know when you are available and we would be happy to coordinate a meeting with our project team at your earliest convenience.

Link to Environmental Report:

URL: <https://onyx.erm.com>

Username: 0460600-0005-0003

Password: 22786P7z

Regards,

Jessie Malone, P.Eng

Environmental and Regulatory Advisor

Safety Security Health and Environment, Imperial

505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194

jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491

imperialoil.ca | [Twitter](#) | [YouTube](#)

From: Roger Goulet [<mailto:rigoulet1@gmail.com>]

Sent: Thursday, January 17, 2019 12:44 PM

To: Malone, Jessie M <jessie.m.malone@esso.ca>; Thiessen, Corinne E
<corinne.e.thiessen@esso.ca>

Subject: Imperial Pipeline Replacement Project Waterdown to Finch

Dear Jessie Malone,
Imperial Oil Canada,

Thank you for keeping the lines of communication with the community open.
Please see attached Word document with a number of preliminary questions we respectfully
ask that Imperial respond to at earliest date.

We do want to get a copy of the pre-application Environmental Report.

Once we have both of these, and had time to review, we would be interested in meeting with
Imperial to discuss these and other areas of concern with the proposed Imperial pipeline
project through the environmentally sensitive Lake Medad and Mount Nemo Plateau, part of
the Niagara Escarpment in north Burlington.

Yours truly,
Roger Goulet
Protecting Escarpment Rural Land (PERL)

From: [Ryo Kikuchi](#)
To: [Stewart, Nathan](#)
Subject: FW: Waterdown to Finch Project: Draft Environmental Report
Date: Friday, February 8, 2019 3:57:00 PM
Attachments: [image001.png](#)

From: Ryo Kikuchi
Sent: February-01-19 3:30 PM
To: Fletcher, Ryan <Ryan.Fletcher@halton.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: Waterdown to Finch Project: Draft Environmental Report

Dear Ryan,

Imperial's Sarnia Products Pipeline (SPPL) is important infrastructure that provides products used by households and businesses across the Greater Toronto and Hamilton Area (GTHA). This includes a significant portion of jet fuel for Toronto Pearson International Airport, as well as gasoline and diesel fuel that keeps people, goods and services moving throughout the GTHA region.

To support continued safe, reliable, and environmentally responsible transportation of products, Imperial is planning to construct and operate a new pipeline that will replace the transportation capabilities of the existing SPPL. The Waterdown to Finch Project is the proposed installation of approximately 63-kilometres of pipeline between the company's pump station in rural Hamilton (Waterdown Station) and its terminal storage facility in Toronto's North York area (Finch Terminal).

Imperial anticipates filing a Leave to Construct application for the Waterdown to Finch Project with the Ontario Energy Board (OEB) in the first quarter of 2019. In preparation for the Leave to Construct, a pre-application filing of the draft Environmental Report has been submitted to the OEB for preliminary review. **Please see the ERM FTP site below to download the draft Environmental Report.**

URL: <https://onyx.erm.com>

Username: 0460600-0005-0003

Password: 22786P7z

Imperial is committed to regular and frequent communication as updates become available. The draft Environmental Report has been provided for early review to representatives of the Ontario Pipeline Coordinating Committee, as well as other interested stakeholders, including Conservation Authorities, Niagara Escarpment Commission, Indigenous communities, and technical contacts at municipalities along the pipeline right-of-way.

We welcome direct feedback on the Waterdown to Finch Project draft Environmental Report in advance of the regulatory application. Additionally, Imperial will provide notification when the Leave to Construct is submitted to the OEB, which will include an updated Environmental Report considering comments received to date. The company will continue to accept feedback on the

Environmental Report once the Leave to Construct application is filed, and there will be further opportunities to participate more formally throughout the regulatory process.

To learn more about the Waterdown to Finch Project, please visit our website (www.imperialoil.ca/waterdowntofinch). We can be contacted directly by email at questions@imperialon.ca or by phone at 416-586-1915.

Best regards,

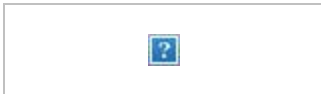
Ryo Kikuchi

Planner, Planning and Permitting
CanACRE

T: 416-548-8602 x2150

F: 416-352-0707

www.canacre.com



From: [Malone, Jessie M](mailto:Malone.Jessie.M)
To: Auryn.Soaes@mississauga.ca
Cc: questions@imperialon.ca; [Thiessen, Corinne E](mailto:Thiessen.Corinne.E)
Subject: Re: Waterdown to Finch Project: Draft Environmental Report
Date: Tuesday, February 19, 2019 10:43:05 AM

Hi Auryn,

I hope you are doing well. In follow-up to our last update, **Imperial's Waterdown to Finch Project is now on track to submit its leave to construct application to the Ontario Energy Board (OEB)** in the first quarter of 2019. The leave to construct process is an important milestone for the Project as it reflects a robust environmental planning, stakeholder engagement, cultural, social and heritage assessment and engineering process.

With our leave to construct application approaching, we wanted to confirm whether you will continue to be our main point of contact for the City throughout our review process? We also intend on circulating a leave to construct notification letter to City Manager Baker, as we did with our original project notification letter. Any advice to ensure a smooth submission and comment process would be greatly appreciated.

As a pre-application filing, an environmental report was recently submitted to the OEB and Ontario Pipeline Coordination Committee members and shared with a number of stakeholders including Credit Valley Conservation Authority, you and Bill Moffat at the City of Mississauga. Just a reminder that you can view by visiting ERM's FTP site below.

URL: <https://onyx.erm.com>

Username: 0460600-0005-0003

Password: 22786P7z

Many thanks,

Jessie Malone, P.Eng

Environmental and Regulatory Advisor

Safety Security Health and Environment, Imperial
505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194
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imperialoil.ca | [Twitter](#) | [YouTube](#)

ROC2189a (Letter 6 pages)



March 8, 2019

CFN 59834
XREF CFN 60867.16

BY E-MAIL ONLY (jessie.m.malone@esso.ca)

Jessie Malone
Environment and Regulatory Lead
Imperial Oil Limited
505 Quarry Park Boulevard SE
Calgary, AB T2C 5N1

Dear Ms. Malone:

**Re: Response to Draft Environmental Report
Waterdown to Finch Pipeline Replacement Project
Ontario Energy Board Leave to Construct Application
Etobicoke Creek, Mimico Creek and Humber River Watersheds; City of Mississauga, Regional
Municipality of Peel; Etobicoke York and North York Community Council Areas, City of Toronto**

Toronto and Region Conservation Authority (TRCA) staff received the draft Environmental Report (ER) dated January 2019 for the above noted project on February 1, 2019.

PROJECT OVERVIEW

Staff understands that the draft ER involves the replacement of approximately 63 km of the existing Sarnia Products Pipeline (SPPL) from the Waterdown pump station in Hamilton, to a terminal storage facility in Toronto. It is understood that this segment of the existing pipeline is reaching its end-of-life, and that Imperial Oil is proactively replacing this pipeline to continue safe and reliable delivery of refined fuel product to service the movement of people, goods and services throughout the region, including the Toronto Pearson International Airport. It is further understood that the existing pipeline will continue to operate until the new pipeline has been installed, at which point the transmission of fuel will be transferred from the existing to the new pipeline. The existing pipeline will then be deactivated, removed from service, cleaned and left in place.

It is understood that most of the pipeline replacement work will take place in close vicinity to the existing pipeline through an existing utility corridor via both open cut trench and trenchless technology methods. In addition to areas regulated by TRCA, the proposed pipeline will also run through the jurisdictions of Hamilton Conservation Authority (HCA), Conservation Halton (CH) and Credit Valley Conservation (CVC).

PROJECT REVIEW

While staff has no objection in principle to the preferred alternative, staff has some concerns that should be addressed in the final ER document. However, as insufficient time has been provided to TRCA staff to review the draft ER, it is understood that comments will not be integrated into the final ER to be submitted as part of the Ontario Energy Board (OEB) Leave to Construct application. As such, it is staff expectation that all TRCA staff concerns will be addressed at the detailed design and permitting stage of the project.

Staff acknowledges that the ER document contains high-level information with coarse-level mapping of the preferred horizontal alignment of the pipeline. Please note that refinement of both the horizontal and vertical alignment of the pipeline, as well as installation method, may be required at the detailed design stage to ensure that impacts to natural features and hazards are minimized to the extent feasible.

Detailed comments to be addressed at the detailed design and permitting stage of the project are provided in **Appendix A**. These comments should be included as an appendix in the final EA report.

SUBMISSION REQUIREMENTS

Please ensure TRCA receives a copy of the Notice of Study Completion, as well as one (1) hard copy and one (1) digital copy of the final ER. The final ER document should be accompanied by a covering letter which uses the numbering scheme provided in Appendix A and identifies how these comments have been or will be addressed. Digital materials must be submitted in PDF format, with drawings pre-scaled to print on 11"x17" pages. Materials may be submitted on discs, via e-mail (if less than 2.5 MB), or through file transfer protocol (FTP) sites (if posted for a minimum of two weeks).

Permits under Ontario Regulation 166/06

As noted in the ER, permits in accordance with Ontario Regulation 166/06 are required from TRCA prior to project construction. In advance of permit submissions, a Pre-Design Brief summarizing all TRCA requirements and commitments made during the EA stage should be completed and submitted to TRCA staff for review. The Pre-Design Brief should include reference to comments in Appendix A of this letter.

At detailed design, the project will be divided into the following separate permits:

1. Edge of TRCA jurisdiction to east of Fieldgate Drive
2. East of Fieldgate Drive to Renforth Drive
3. Renforth Drive to south of Highway 409
4. South of Highway 409 to east of Islington Avenue
5. East of Islington Avenue to Finch Avenue
6. Finch Avenue to Finch Terminal

In addition to the Pre-Design Brief, please submit for each of the above permits:

- Completed and signed [TRCA permit application](#)
- Requirements listed within the [Initial Submission Checklist for Infrastructure Projects](#) and New or [Realigned Feeder mains and Forcemains Complete Submission Checklist for Infrastructure Projects](#)
- Relevant [Standard Notes for Environmental Assessment/ Infrastructure Permit Applications](#)
- Fee will be provided after initial submission of each permit application, in accordance with the [2018 Fee Schedule](#)

REVIEW FEES

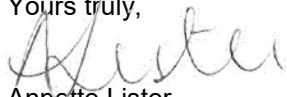
Please be advised that this application is subject to a **\$24,120.00** review fee as per our [2018 Fee Schedule](#).

Please note:

1. **To ensure accurate processing of your fee, please ensure your accounting department references CFN 59834 when making any payments.**
2. Payment method and timing must be noted in your covering letter response.
3. Payments can be made by:
 - a. Cheque: please attach the cheque to your resubmission. Alternatively, if sending separately through your accounting department, please request your accounting department submit the cheque to the attention of Rina Bhagat - Administrative Assistant, Environmental Assessment Planning, TRCA.
 - b. Credit Card: please contact Rina Bhagat at extension 5681 for payments made over the phone.
 - c. Electronic Fund Transfer: this option may be available through your accounting department.

Should you have any questions please contact me at extension 5266 or at alister@trca.on.ca.

Yours truly,



Annette Lister
Planner, Infrastructure Planning and Permits
Development and Engineering Services

BY E-MAIL

cc:

Imperial Oil: Corinne Thiessen, Stakeholder Engagement Regional Lead (corinne.e.thiessen@esso.ca)
ERM: Matthew Scoular, Project Manager (matthew.scoular@erm.com)
City of Toronto: Bill Snodgrass, Senior Engineer (bill.snodgrass@toronto.ca)
HCA: Darren Kenny, Watershed Officer (darren.kenny@conservationhamilton.ca)
CH: Ben Davis, Regulations Officer (bdavis@hrca.on.ca)
CVC: Liam Marray, Manager Planning Ecology (lmarray@creditvalley.ca)
Jakub Kilis, Senior Planner, Environmental Assessment (jkilis@creditvalley.ca)
TRCA: Beth Williston, Senior Manager, Infrastructure Planning and Permits
Sharon Lingertat, Senior Planner, Infrastructure Planning and Permits
Renee Afoom-Boateng, Senior Planner, Infrastructure Planning and Permits
Edlyn Wong, Property Agent, Property and Risk Management
Ralph Toniger, Associate Director, Resource Management Projects
Chandra Sharma, Director, Community Engagement and Outreach
Victoria Kramkowski, Government and Community Relations Specialist, Peel Watersheds
Sonia Dhir, Senior Program Manager, Humber and Urban Agriculture Program Lead

APPENDIX A: TRCA COMMENTS

TRCA Property

1. The pipeline is proposed within an existing utility corridor that is located in part within the Natural System and traverses across a number of valleys, watercourses, wetlands and other environmentally sensitive areas within the Humber River Watershed. Large swathes of TRCA property also abuts this section of the utility corridor on both sides. TRCA staff is interested in initiating a partnership with Imperial Oil to develop an integrated trail strategy with connections into TRCA property and through the utility corridor. It is staff opinion that the implementation of an integrated trail strategy will serve to provide many public realm benefits through the provision of under-utilized space for public use. Furthermore, if permanent access routes are needed for the monitoring, maintenance or operation of the pipeline, these access routes may be integrated as a part of the trail system.

Please note that discussions pertaining to the development of an integrated trail strategy in this area was initiated between TRCA and Imperial Oil staff at the Imperial Oil Emergency Response Exercise in October 2018. Please contact TRCA staff to arrange a kick-off meeting to begin the mapping and planning process for an integrated trail strategy, which will include consultation with landowners and other relevant stakeholders.

2. Please note that TRCA properties are located adjacent to the existing utility corridor on both sides within the City of Toronto. Although the proposed pipeline is located entirely within the utility corridor, please contact TRCA staff as early as possible if TRCA property is impacted by the need for permanent easements, temporary working space or access. Please note that compensation and mitigation requirements will need to be agreed upon prior to any TRCA property or access agreements, including for both permanent and temporary easements. Please also note that there are archaeological requirements associated with permanent easements, temporary working space or access on TRCA property which must be undertaken by in-house TRCA staff archaeologists. Staff is currently in consultation with Imperial Oil staff regarding a permanent and temporary easement on TRCA property located just west of Albion Road. Please continue to consult with TRCA staff regarding any property requirements.

Watercourse, Wetland and Natural Feature or Hazard Crossings

3. Staff acknowledges that the identification and characterization of environmental features has been undertaken at a coarse-level as identified in maps in Appendices C and D. At detailed design, site-specific delineation and characterization of natural features and hazards should be provided to ensure that they are not impacted by pipeline alignment or installation method, which includes location and size of temporary work spaces, access routes and bore pits. Proper characterization of features and hazards along with appropriate pipeline alignment will also mitigate the new pipeline from being exposed overtime. Please clearly identify all natural features and hazards, and depth of cover along the entire pipeline alignment on the drawings at detailed design.

Please note that site visits with TRCA staff may be required at certain locations along the pipeline. Please contact TRCA staff to identify and arrange for site visits prior to detailed design.

4. Ideally, linear infrastructure should avoid crossing environmental features. Where there is no other alternative and a watercourse crossing is required, linear infrastructure should be installed perpendicular and not parallel to a watercourse, while maintaining depth of cover not only under the watercourse but along the entire valley wall. As a minimum, the proposed pipeline should be located beyond the meander belt, 100-year erosion limit and long-term stable top of slope, with at least 2.0 m depth of cover between the obvert of the pipeline and the invert of the crossing. Should the distance be less than 2.0 m, a fluvial geomorphology report may be required to ensure stream bed erosion will not impact the pipeline. A long-term slope stability assessment may also be required in some areas to ensure that there is sufficient depth of cover away from valley slopes to prevent future pipeline

exposure. At detailed design, please provide all appropriate studies to support the horizontal and vertical alignment of the pipeline, along with the detailed design drawings.

5. Please note that it is TRCA staff's preference that all watercourse crossings (not only Class 1 Streams) be installed with trenchless methods and drill sites be accessed from either side of the watercourse to the extent feasible. Where open cut installation is proposed or where a temporary crossing is required, please provide justification as to why trenchless installation or access from either side of the watercourse is not feasible.
6. Please note that it is TRCA staff's preference that all wetlands (not only Provincially Significant Wetland (PSW)) crossings be installed with trenchless methods. However, where trenchless methods are not feasible, staff support the use of timber matting adjacent to open cut as well as appropriate timing of installation (i.e. during dormant periods) as noted in the mitigation measures table. Staff expect these mitigation methods be carried out during detailed design.
7. Staff supports the use of trenchless methods to reduce impact on watercourses, wetlands and other sensitive features. It is understood that long horizontal direction drill (HDD) segments are proposed in some areas, including at Humber River and Emery Creek.
 - a. It is staff experience that long HDD installations often require relief pits, as well as access to relief pits. Please identify the location of potential relief pit areas as well as access routes. Moreover, please ensure that relief pits are set back from the watercourse, out of the floodplain, and in areas that do not pose a risk to erosion. Any temporary work space for the relief pits and required access within the Natural System will need to be restored and compensated.
 - b. Please consider the amount of temporary work space required to accommodate the pull back of a long HDD drill, and how this may impact adjacent and nearby watercourse and road crossings.
8. Please note that all required above-surface infrastructure in support of the pipeline (i.e. valves) should be sited appropriately and set back from natural hazards and features to the extent possible.
9. Staff understands that operation of the new pipeline will involve 24/7 monitoring from Imperial Oil's dedicated control centre, augmented by routine aerial and ground visual inspections for the pipeline right-of-way (ROW) (Section 2.8). At detailed design, please provide details in regards to a post-construction ongoing geohazard risk assessment and monitoring program of both the existing and new pipeline to enable early detection of slope and channel erosion hazards. Details should include thresholds at which remedial action is required, as well as the nature of remedial action should an erosion hazard be detected.
10. Please include Wetland and Watercourse Crossing IDs identified within Appendix F in mapping provided within Appendices C and D.

Environmental Protection, Management and Contingency Plans

11. At detailed design, please provide identified environmental protection, management and contingency plans for staff review. In particular, staff are interested in seeing the Environmental Protection Plan (EPP), Erosion and Sediment Control Plan (ESCP), Water Management Plan, Reclamation Plan, Spill Prevention and Response Plan, and Inadvertent Returns during HDD Plan.
12. In regards to the ESCP, please note that mitigation measures should conform to the [Erosion and Sediment Control Guidelines for Urban Construction](#) (2006). At detailed design, please provide an ESCP with details, locations and supporting calculations for the proposed measures.
13. In regards to the Water Management Plan, please note that where dewatering is required the flow from the dewatering pump should be treated prior to flowing to the watercourse. A filter bag or temporary sediment trap should be utilized to treat the discharged flows. The discharge from dewatering must be dispersed from the filter bag or trap through a vegetated area a minimum of 30 m away from the

watercourse. At detailed design, please provide the expected pumping rate, duration and estimated amount of water to be discharged into receiving waters.

14. In regards to the Reclamation Plan, please note that although TRCA staff appreciates the effort to restore temporary work spaces and disturbed areas within the Natural System with sediment, the removal of woody vegetation (trees and shrubs) as well as the lag time associated with replacing this stock in the landscape will also need to be considered. Please ensure that compensation for the temporary and permanent removal of vegetation within the Natural System is completed in accordance with the [Guideline for Determining Ecosystem Compensation](#) (2018). Please note that restoration and compensation opportunities may be sought with the TRCA Restoration Projects group.

Construction Typical Drawings

15. Due to insufficient time provided to staff to review the draft ER, it is staff expectation that details within the construction typical drawings will be refined at detailed design. These refinements may include, but are not limited to:
 - a. Size and location of temporary work spaces. These appear to be excessively large in the typical drawings for isolated open cut and HDD. Please note that staff expects that temporary work spaces will be minimized to the extent feasible within TRCA regulated areas.
 - b. Stabilization and restoration associated with watercourses. Please note that TRCA staff does not support the use of rip rap for watercourse restoration. At detailed design, staff expects that watercourse restoration will be completed in accordance with the TRCA [Channel Modification Design and Submission Requirements](#) (2007).

McArthur, Cheryl

From: Malone, Jessie M <jessie.m.malone@esso.ca>
Sent: March 8, 2019 5:14 PM
To: Sarah Gagne
Cc: Matthew Scoular; Mark Welsh; imperial-isometrix@national.ca
Subject: FW: CFN 59834 WatFinch Pipeline Replacement Draft Environmental Report - TRCA Comments
Attachments: CFN 59834 Imperial Oil WatFinch Pipeline Draft ER Response Letter - Mar 8, 2019.pdf

From: Annette Lister [<mailto:annette.lister@trca.on.ca>]
Sent: Friday, March 8, 2019 1:49 PM
To: Malone, Jessie M <jessie.m.malone@esso.ca>
Cc: Thiessen, Corinne E <corinne.e.thiessen@esso.ca>; Matthew Scoular <Matthew.Scoular@erm.com>; Bill Snodgrass <Bill.Snodgrass@toronto.ca>; Kenny, Darren <Darren.Kenny@conservationhamilton.ca>; bdavis@hrca.on.ca; Marray, Liam <lmarray@creditvalleyca.ca>; Kilis, Jakub <Jakub.Kilis@cvc.ca>; Beth Williston <bwilliston@trca.on.ca>; Sharon Lingertat <sharon.lingertat@trca.on.ca>; Renee Afoom-Boateng <rafoom-boateng@trca.on.ca>; Edlyn Wong <ewong@trca.on.ca>; Ralph Toninger <rtoninger@trca.on.ca>; Chandra Sharma <csharma@trca.on.ca>; Victoria Kramkowski <Victoria.Kramkowski@trca.on.ca>; Sonia Dhir <sdhir@trca.on.ca>
Subject: CFN 59834 WatFinch Pipeline Replacement Draft Environmental Report - TRCA Comments

Hello Jessie,

TRCA staff received the draft Environmental Report for the above-named project on February 1, 2019. Please see the attached letter for TRCA staff response and comments.

Should you have any questions, please do not hesitate to contact me.

Thank you,
Annette

Annette Lister, M.A.Sc.
Planner
Infrastructure Planning and Permits | Development and Engineering Services

T: 416.661.6600 ext. 5266
E: alister@trca.on.ca
A: 101 Exchange Avenue, Vaughan ON L4K 5R6

Toronto and Region Conservation Authority (TRCA) | trca.ca

From: [Malone, Jessie M](#)
To: [Annette Lister](#)
Cc: [Thiessen, Corinne E](#); [Matthew Scoular](#); [Bill Snodgrass](#); [Kenny, Darren](#); bdavis@hrca.on.ca; [Murray, Liam](#); [Kilis, Jakub](#); [Beth Williston](#); [Sharon Lingertat](#); [Renee Afoom-Boateng](#); [Edlyn Wong](#); [Ralph Toning](#); [Chandra Sharma](#); [Victoria Kramkowski](#); [Sonia Dhir](#)
Subject: RE: CFN 59834 WatFinch Pipeline Replacement Draft Environmental Report - TRCA Comments
Date: Friday, March 8, 2019 5:11:14 PM

Hi Annette,

Thank you for your review of the Environmental Report and for your comments. We will review and reach out should we have any questions.

Thanks,

Jessie Malone, P.Eng
Environmental and Regulatory Advisor
Safety Security Health and Environment, Imperial
505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194
jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491
imperialoil.ca | [Twitter](#) | [YouTube](#)

From: Annette Lister [<mailto:annette.lister@trca.on.ca>]
Sent: Friday, March 8, 2019 1:49 PM
To: Malone, Jessie M <jessie.m.malone@esso.ca>
Cc: Thiessen, Corinne E <corinne.e.thiessen@esso.ca>; Matthew Scoular <Matthew.Scoular@erm.com>; Bill Snodgrass <Bill.Snodgrass@toronto.ca>; Kenny, Darren <Darren.Kenny@conservationhamilton.ca>; bdavis@hrca.on.ca; Marray, Liam <lmarray@creditvalleyca.ca>; Kilis, Jakub <Jakub.Kilis@cvc.ca>; Beth Williston <bwilliston@trca.on.ca>; Sharon Lingertat <sharon.lingertat@trca.on.ca>; Renee Afoom-Boateng <rafoom-boateng@trca.on.ca>; Edlyn Wong <ewong@trca.on.ca>; Ralph Toning <rtoninger@trca.on.ca>; Chandra Sharma <csharma@trca.on.ca>; Victoria Kramkowski <Victoria.Kramkowski@trca.on.ca>; Sonia Dhir <sdhir@trca.on.ca>
Subject: CFN 59834 WatFinch Pipeline Replacement Draft Environmental Report - TRCA Comments

Hello Jessie,

TRCA staff received the draft Environmental Report for the above-named project on February 1, 2019. Please see the attached letter for TRCA staff response and comments.

Should you have any questions, please do not hesitate to contact me.

Thank you,
Annette

Annette Lister, M.A.Sc.
Planner
Infrastructure Planning and Permits | Development and Engineering Services

T: 416.661.6600 ext. 5266
E: alister@trca.on.ca

From: [Malone, Jessie M](#)
To: [Matthew Scoular](#); [Mark Welsh](#)
Cc: imperial-isometrix@national.ca
Subject: FW: Waterdown to Finch ER Report CH Comments
Date: Tuesday, March 19, 2019 5:13:55 PM
Attachments: [MPR 729 - Imperial Oil Waterdown to Finch Pipeline ReplacementFinal.pdf](#)

From: Charles Priddle [<mailto:cpriddle@hrca.on.ca>]
Sent: Tuesday, March 19, 2019 1:29 PM
To: Malone, Jessie M <jessie.m.malone@esso.ca>
Cc: Janette Brenner <jbrenner@hrca.on.ca>; Lesley Matich <lmatic@hrca.on.ca>; Jacek Strakowski <jstrakowski@hrca.on.ca>; Thiessen, Corinne E <corinne.e.thiessen@esso.ca>; matthew.scoular@erm.com; bill.snodgrass@toronto.ca; Kenny, Darren <Darren.Kenny@conservationhamilton.ca>; jkilis@creditvalley.ca; anette.lister@trca.on.ca
Subject: Waterdown to Finch ER Report CH Comments

Hi Jessie:

Please find attached Conservation Halton's comments related to the Draft Environmental Report. Should you have any questions, please feel free to contact me directly.

With regards,

Charles Priddle, Ph.D.

Coordinator, Regulations Program

Conservation Halton

2596 Britannia Road West, Burlington, ON L7P 0G3
905.336.1158 ext. 2276 | Fax 905.336.6684 | cpriddle@hrca.on.ca
conservationhalton.ca

From: [Tourigny, Ron](mailto:Tourigny_Ron)
To: carrie.gordon@bell.ca
Cc: rowcentre@bell.ca
Subject: FW: Imperial submits Leave to Construct application to the Ontario Energy Board for the Waterdown to Finch Project
Date: Wednesday, April 24, 2019 3:57:16 PM
Attachments: [Notice_IOL_201904101.pdf](#)

Dear Carrie Gordon

Please find enclosed a Notice of Hearing issued by the Ontario Energy Board (OEB) to consider Imperial's Leave to Construct application filing for the Waterdown to Finch Project. On February 25, 2019, the Project submitted a Leave to Construct application to the OEB, the province's energy regulator, who is responsible for ensuring compliance with the province's environmental guidelines for the location, construction and operation of hydrocarbon pipelines and facilities in Ontario. Imperial's application reflects the robust environmental planning, stakeholder engagement, cultural, social and heritage assessment process that has taken place since the Project launched in May 2018.

The Project will replace a 63-kilometre segment of the Sarnia Products Pipeline between Waterdown and North York. Operating safely in the region for many years, this pipeline provides refined products used by businesses and households across the Greater Toronto and Hamilton Area, including a significant portion of jet fuel at Toronto Pearson International Airport. Subject to provincial regulatory review and receipt of all permits, Imperial expects to start construction on the replacement project by the end of 2019.

Imperial is committed to providing timely and accessible information about the Project and its regulatory review. In accordance with OEB requirements, the Waterdown to Finch Project application and evidence for the Leave to Construct and the Environmental Report will be available for download from Imperial's project website at **imperialoil.ca/waterdowntofinch** as well as on the OEB's regulatory applications page at **oeb.ca/industry/applications-oeb**.

For more information regarding Imperial's Project application, the public hearing process and how to file a letter or become an intervenor, interested parties may also reference the file number **EB-2019-0007** on the OEB website: www.oeb.ca/participate. A hard copy of the application will be available for review at Imperial's head office in Calgary, Alberta as well as its Finch Terminal in North York, Ontario.

Calgary Office Imperial Oil Limited 505 Quarry Park Blvd Calgary, Alberta T2C 5N1	Finch Terminal Imperial Oil Limited 1150 Finch Ave W North York, Ontario M3J 2E4
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Should you have any questions about the Project, please do not hesitate to contact me.

Sincerely,

Ron
 Ron Tourigny
 Right of Way & Claims Coordinator
 Imperial's Sarnia Products Pipeline, Waterdown to Finch Project
 100 Concession 5 East
 Waterdown ON L8B 1K5
ron.tourigny@esso.ca P 289-391-0117 C 905-730-8818 F 905-689-3553

From: [Malone, Jessie M](#)
To: diana.rusnov@mississauga.ca
Subject: Imperial submits Leave to Construct application to the Ontario Energy Board for the Waterdown to Finch Project
Date: Wednesday, April 24, 2019 2:59:07 PM
Attachments: [Notice_IOL_201904101.pdf](#)

Dear Diana Rusnov,

Please find enclosed a Notice of Hearing issued by the Ontario Energy Board (OEB) to consider Imperial’s Leave to Construct application filing for the Waterdown to Finch Project. On February 25, 2019, the Project submitted a Leave to Construct application to the OEB, the province’s energy regulator, who is responsible for ensuring compliance with the province’s environmental guidelines for the location, construction and operation of hydrocarbon pipelines and facilities in Ontario. Imperial’s application reflects the robust environmental planning, stakeholder engagement, cultural, social and heritage assessment process that has taken place since the Project launched in May 2018.

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Calgary Office Imperial Oil Limited 505 Quarry Park Blvd Calgary, Alberta T2C 5N1	Finch Terminal Imperial Oil Limited 1150 Finch Ave W North York, Ontario M3J 2E4
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Should you have any questions about the Project, please do not hesitate to contact me.

Sincerely,

Jessie Malone, P.Eng
 Environmental and Regulatory Advisor
 Safety Security Health and Environment, Imperial
 505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194
jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491
imperialoil.ca | [Twitter](#) | [YouTube](#)

From: [Malone, Jessie M](#)
To: clerk@toronto.ca
Subject: Imperial submits Leave to Construct application to the Ontario Energy Board for the Waterdown to Finch Project
Date: Wednesday, April 24, 2019 2:56:58 PM
Attachments: [Notice_IOL_201904101.pdf](#)

Dear Ulli S. Watkiss,

Please find enclosed a Notice of Hearing issued by the Ontario Energy Board (OEB) to consider Imperial’s Leave to Construct application filing for the Waterdown to Finch Project. On February 25, 2019, the Project submitted a Leave to Construct application to the OEB, the province’s energy regulator, who is responsible for ensuring compliance with the province’s environmental guidelines for the location, construction and operation of hydrocarbon pipelines and facilities in Ontario. Imperial’s application reflects the robust environmental planning, stakeholder engagement, cultural, social and heritage assessment process that has taken place since the Project launched in May 2018.

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Calgary Office Imperial Oil Limited 505 Quarry Park Blvd Calgary, Alberta T2C 5N1	Finch Terminal Imperial Oil Limited 1150 Finch Ave W North York, Ontario M3J 2E4
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Should you have any questions about the Project, please do not hesitate to contact me.

Sincerely,

Jessie Malone, P.Eng
Environmental and Regulatory Advisor
Safety Security Health and Environment, Imperial
505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194
jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491
imperialoil.ca | [Twitter](#) | [YouTube](#)

From: [Tourigny, Ron](#)
To: jim.arnott@enbridge.com; mark-ups@enbridge.com
Subject: FW: Imperial submits Leave to Construct application to the Ontario Energy Board for the Waterdown to Finch Project
Date: Wednesday, April 24, 2019 3:16:28 PM
Attachments: [Notice_IOL_201904101.pdf](#)

Dear Jim Arnott

Please find enclosed a Notice of Hearing issued by the Ontario Energy Board (OEB) to consider Imperial’s Leave to Construct application filing for the Waterdown to Finch Project. On February 25, 2019, the Project submitted a Leave to Construct application to the OEB, the province’s energy regulator, who is responsible for ensuring compliance with the province’s environmental guidelines for the location, construction and operation of hydrocarbon pipelines and facilities in Ontario. Imperial’s application reflects the robust environmental planning, stakeholder engagement, cultural, social and heritage assessment process that has taken place since the Project launched in May 2018.

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For more information regarding Imperial’s Project application, the public hearing process and how to file a letter or become an intervenor, interested parties may also reference the file number **EB-2019-0007** on the OEB website: www.oeb.ca/participate. A hard copy of the application will be available for review at Imperial’s head office in Calgary, Alberta as well as its Finch Terminal in North York, Ontario.

Calgary Office Imperial Oil Limited 505 Quarry Park Blvd Calgary, Alberta T2C 5N1	Finch Terminal Imperial Oil Limited 1150 Finch Ave W North York, Ontario M3J 2E4
--	---

Should you have any questions about the Project, please do not hesitate to contact me.

Sincerely,

Ron
 Ron Tourigny
 Right of Way & Claims Coordinator
 Imperial’s Sarnia Products Pipeline, Waterdown to Finch Project
 100 Concession 5 East
 Waterdown ON L8B 1K5
ron.tourigny@esso.ca P 289-391-0117 C 905-730-8818 F 905-689-3553
imperialoil.ca Twitter YouTube

From: [Tourigny, Ron](#)
To: Roman.Dorfman@HydroOne.com
Subject: FW: Imperial submits Leave to Construct application to the Ontario Energy Board for the Waterdown to Finch Project
Date: Wednesday, April 24, 2019 3:05:09 PM
Attachments: [Notice_IOL_201904101.pdf](#)

Dear Roman Dorfman

Please find enclosed a Notice of Hearing issued by the Ontario Energy Board (OEB) to consider Imperial’s Leave to Construct application filing for the Waterdown to Finch Project. On February 25, 2019, the Project submitted a Leave to Construct application to the OEB, the province’s energy regulator, who is responsible for ensuring compliance with the province’s environmental guidelines for the location, construction and operation of hydrocarbon pipelines and facilities in Ontario. Imperial’s application reflects the robust environmental planning, stakeholder engagement, cultural, social and heritage assessment process that has taken place since the Project launched in May 2018.

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Should you have any questions about the Project, please do not hesitate to contact me.

Sincerely,

Ron
Ron Tourigny
Right of Way & Claims Coordinator
Imperial’s Sarnia Products Pipeline, Waterdown to Finch Project
100 Concession 5 East
Waterdown ON L8B 1K5
ron.tourigny@esso.ca P 289-391-0117 C 905-730-8818 F 905-689-3553
imperialoil.ca Twitter YouTube

From: [Malone, Jessie M](#)
To: Graham.Milne@halton.ca
Subject: Imperial submits Leave to Construct application to the Ontario Energy Board for the Waterdown to Finch Project
Date: Wednesday, April 24, 2019 2:57:56 PM
Attachments: [Notice_IOL_201904101.pdf](#)

Dear Graham Milne,

Please find enclosed a Notice of Hearing issued by the Ontario Energy Board (OEB) to consider Imperial’s Leave to Construct application filing for the Waterdown to Finch Project. On February 25, 2019, the Project submitted a Leave to Construct application to the OEB, the province’s energy regulator, who is responsible for ensuring compliance with the province’s environmental guidelines for the location, construction and operation of hydrocarbon pipelines and facilities in Ontario. Imperial’s application reflects the robust environmental planning, stakeholder engagement, cultural, social and heritage assessment process that has taken place since the Project launched in May 2018.

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Calgary Office Imperial Oil Limited 505 Quarry Park Blvd Calgary, Alberta T2C 5N1	Finch Terminal Imperial Oil Limited 1150 Finch Ave W North York, Ontario M3J 2E4
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Should you have any questions about the Project, please do not hesitate to contact me.

Sincerely,

Jessie Malone, P.Eng
 Environmental and Regulatory Advisor
 Safety Security Health and Environment, Imperial
 505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194
jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491
imperialoil.ca | [Twitter](#) | [YouTube](#)

From: [Malone, Jessie M](#)
To: [Lamont, David](#); [Paparella, Guy](#)
Cc: [Cole, Darlene](#); [Tourigny, Ron](#)
Subject: RE: Imperial submits Leave to Construct application to the Ontario Energy Board for the Waterdown to Finch Project
Date: Thursday, April 25, 2019 11:17:34 AM

Hello David,

Thank you for reaching out. The Sarnia Products Pipeline is important infrastructure that supports businesses and households throughout the Greater Toronto and Hamilton Area. To ensure continued reliable supply of essential fuels like gasoline, diesel and jet fuel, Imperial will continue to operate the existing pipeline throughout construction of the new line. However, once the new pipeline successfully installed, the existing line will be safely deactivated and will no longer be in use. Leaving the existing line in place will cause the least disturbance to the local environment and minimize our construction footprint.

As stated in the Ontario Energy Board's Notice of Application, Imperial is replacing the existing transportation capabilities of refined oil products between its Waterdown Pump Station and Finch Terminal.

Please let me know if you have any further questions and comments.

Thank you,

Jessie Malone, P.Eng
Environmental and Regulatory Advisor
Safety Security Health and Environment, Imperial
505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194
jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491
imperialoil.ca | [Twitter](#) | [YouTube](#)

From: Lamont, David [<mailto:David.Lamont@hamilton.ca>]
Sent: Thursday, April 25, 2019 8:39 AM
To: Malone, Jessie M <jessie.m.malone@esso.ca>; Paparella, Guy <Guy.Paparella@hamilton.ca>
Cc: Cole, Darlene <Darlene.Cole@hamilton.ca>; Tourigny, Ron <ron.tourigny@esso.ca>
Subject: Re: Imperial submits Leave to Construct application to the Ontario Energy Board for the Waterdown to Finch Project

Hello Jessie,

It is my understanding that this project is installing a new line and the old line will remain in place. Calling this a **replacement** is somewhat misleading. Can you please confirm?

Regards

David Lamont, O.L.S., B.Sc.

support could include:

- The GTAA manages, operates and maintains Toronto Pearson International Airport (Toronto Pearson) — Canada's largest airport that saw more than 465,000 flights and 47 million passengers in 2017. The availability of reliable aviation fuel for carriers is critical to GTAA's management and operation of Toronto Pearson.
- In recent years, the GTAA has expanded its jet fuel infrastructure due to increasing demand.
- The GTAA has also built an on-site co-generation plant to contend with potential power outages similar to the province-wide blackout that took place in 2003. Reliable energy resources are integral to our day-to-day operations.
- A limitation or interruption of fuel supplies would have an immediate and critical operational and financial impact on the GTAA, its customers and Ontario's economy.
- Imperial's Sarnia Products Pipeline and the Waterdown to Finch Project are central to ensuring continued energy and fuel reliability and capacity for the GTAA at Toronto Pearson.
- The nature and scope of your intended participation;
 - Support Imperial's regulatory application with additional evidence to substantiate the need for the Waterdown to Finch Project as it will ensure continued reliability and capacity for aviation fuel to meet the increasing demand at Toronto Pearson.
 - Provide an overview of the economic impact of having a reliable supply of fuel to support Toronto Pearson.
- Whether you intend to seek an award of costs and the grounds for your eligibility; this is often awarded to organizations that represent members or interested parties (consumers groups, ratepayer associations, environmental organizations on the basis that their members could be affected by the outcome of the decision).

- You may also want to include that the GTAA is satisfied if the Board conducts the review of this Application using a written hearing process

Additional Links:

- GTAA Letter of Support – note: as mentioned, the letter was submitted as part of our Leave to Construct application which is now available on the OEB website, [OEB Regulatory Application Page](#).
- [NACC Letter of Support](#) – as mentioned during our meeting.

OEB filing address

Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4
Attn: Ms. Kirsten Walli
Board Secretary
Tel: 1-888-632-6273 (toll free)
Fax: 416-440-7656
E-mail: Registrar@oeb.ca

Understanding this is a lot of information, please let me know if you want to have a call to discuss further.

Thank you,

Corinne Thiessen

Stakeholder Engagement Regional Lead

From: [Thiessen, Corinne E](#)
To: [Auryn Soares](#)
Cc: [Malone, Jessie M](#); [Bill Moffatt](#); [Lincoln Kan](#); [Jeff Smylie](#); [Tourigny, Ron](#); [Eric Mark](#)
Subject: RE: Waterdown to Finch Project: Draft Environmental Report - Mississauga Comments
Date: Friday, May 3, 2019 3:58:10 PM
Attachments: [image002.png](#)

From: Eric Mark [<mailto:emark@canacre.com>]
Sent: February 1, 2019 3:16 PM
To: Auryn Soares; Bill Moffatt
Cc: jessie.m.malone@esso.ca
Subject: Waterdown to Finch Project: Draft Environmental Report

Dear Bill, Auryn,

Imperial's Sarnia Products Pipeline (SPPL) is important infrastructure that provides products used by households and businesses across the Greater Toronto and Hamilton Area (GTHA). This includes a significant portion of jet fuel for Toronto Pearson International Airport, as well as gasoline and diesel fuel that keeps people, goods and services moving throughout the GTHA region.

To support continued safe, reliable, and environmentally responsible transportation of products, Imperial is planning to construct and operate a new pipeline that will replace the transportation capabilities of the existing SPPL. The Waterdown to Finch Project is the proposed installation of approximately 63-kilometres of pipeline between the company's pump station in rural Hamilton (Waterdown Station) and its terminal storage facility in Toronto's North York area (Finch Terminal).

Imperial anticipates filing a Leave to Construct application for the Waterdown to Finch Project with the Ontario Energy Board (OEB) in the first quarter of 2019. In preparation for the Leave to Construct, a pre-application filing of the draft Environmental Report has been submitted to the OEB for preliminary review. **Please see the ERM FTP site below to download the draft Environmental Report.**

URL: <https://onyx.erm.com>

Username: 0460600-0005-0003

Password: 22786P7z

Imperial is committed to regular and frequent communication as updates become available. The draft Environmental Report has been provided for early review to representatives of the Ontario Pipeline Coordinating Committee, as well as other interested stakeholders, including Conservation Authorities, Niagara Escarpment Commission, Indigenous communities, and technical contacts at municipalities along the pipeline right-of-way.

We welcome direct feedback on the Waterdown to Finch Project draft Environmental Report in advance of the regulatory application. Additionally, Imperial will provide notification when the Leave to Construct is submitted to the OEB, which will include an updated Environmental Report considering comments received to date. The company will continue to accept feedback on the Environmental Report once the Leave to Construct application is filed, and there will be further opportunities to participate more formally throughout the regulatory process.

To learn more about the Waterdown to Finch Project, please visit our website (www.imperialoil.ca/waterdowntofinch). We can be contacted directly by email at questions@imperialon.ca or by phone at 416-586-1915.

Thanks,

Eric

From: Malone, Jessie M
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown to Finch Project: Draft Environmental Report - Mississauga Comments
Date: Saturday, July 20, 2019 3:52:40 PM
Attachments: [image004.png](#)
[image003.jpg](#)
[Imperial Oil WatFin Pipeline Draft Environmental Report-City of Mississa....pdf](#)

From: Auryn Soares [mailto:Auryn.Soares@mississauga.ca]

Sent: Wednesday, April 3, 2019 1:02 PM

To: Eric Mark <emark@canacre.com>

Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Bill Moffatt <Bill.Moffatt@mississauga.ca>; Lincoln Kan <Lincoln.Kan@mississauga.ca>; Jeff Smylie <Jeff.Smylie@mississauga.ca>

Subject: RE: Waterdown to Finch Project: Draft Environmental Report - Mississauga Comments

Hello Eric,

We appreciated the opportunity to review the draft Environmental Report. The document had been circulated to staff at the City of Mississauga and our comments have been consolidated in the attached letter for your consideration.

We look forward to the updated Environmental Report and to continue to actively participate in the project.



Auryn Soares

Storm Drainage Coordinator, Environmental Services

T 905-615-3200 ext.3363

auryn.soares@mississauga.ca

[City of Mississauga](#) | Transportation & Works Department,
Infrastructure Planning & Engineering Services Division

From: Eric Mark [<mailto:emark@canacre.com>]

Sent: February 1, 2019 3:16 PM

To: Auryn Soares; Bill Moffatt

Cc: jessie.m.malone@esso.ca

Subject: Waterdown to Finch Project: Draft Environmental Report

Dear Bill, Auryn,

Imperial's Sarnia Products Pipeline (SPPL) is important infrastructure that provides products used by households and businesses across the Greater Toronto and Hamilton Area (GTHA). This includes a significant portion of jet fuel for Toronto Pearson International Airport, as well as gasoline and diesel fuel that keeps people, goods and services moving throughout the GTHA region.

To support continued safe, reliable, and environmentally responsible transportation of products, Imperial is planning to construct and operate a new pipeline that will replace the transportation capabilities of the existing SPPL. The Waterdown to Finch Project is the proposed installation of approximately 63-kilometres of pipeline between the company's pump station in rural Hamilton (Waterdown Station) and its terminal storage facility in Toronto's North York area (Finch Terminal).

Imperial anticipates filing a Leave to Construct application for the Waterdown to Finch Project with the Ontario Energy Board (OEB) in the first quarter of 2019. In preparation for the Leave to Construct, a pre-application filing of the draft Environmental Report has been submitted to the OEB for preliminary review.

Please see the ERM FTP site below to download the draft Environmental Report.

URL: <https://onyx.erm.com>

Username: 0460600-0005-0003

Password: 22786P7z

Imperial is committed to regular and frequent communication as updates become available. The draft

Environmental Report has been provided for early review to representatives of the Ontario Pipeline Coordinating Committee, as well as other interested stakeholders, including Conservation Authorities, Niagara Escarpment Commission, Indigenous communities, and technical contacts at municipalities along the pipeline right-of-way.

We welcome direct feedback on the Waterdown to Finch Project draft Environmental Report in advance of the regulatory application. Additionally, Imperial will provide notification when the Leave to Construct is submitted to the OEB, which will include an updated Environmental Report considering comments received to date. The company will continue to accept feedback on the Environmental Report once the Leave to Construct application is filed, and there will be further opportunities to participate more formally throughout the regulatory process.

To learn more about the Waterdown to Finch Project, please visit our website (www.imperialoil.ca/waterdowntofinch). We can be contacted directly by email at questions@imperialon.ca or by phone at 416-586-1915.

Thanks,

Eric

Eric K Mark, MCIP, RPP

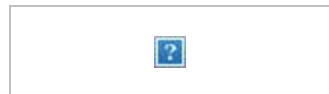
Planner, Team Lead

CanACRE

T: 416-548-8602 x3566

C: 416-909-0684

www.canacre.com



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Waterdown to Finch General Inquiries
questions@imperialon.ca
416.586.1915

VIA Email

May 3, 2019

Auryn Soares
Storm Drainage Coordinator, Environmental Services
Transportation & Works
City of Mississauga
201 City Centre Drive
Mississauga, ON L5B 4E4

Re: Imperial Oil – Waterdown to Finch Pipeline Project – City of Mississauga Comments on Draft Environmental Report

Dear Mr. Soares:

Thank you for the City's review and comments, dated April 3, 2019, on Imperial's Draft Environmental Report.

Please see responses to your questions below.

I. Transportation & Works

• *Environmental Services:*

- 1. Overall, the draft Environmental Report is still lacking in the level of detail necessary to fully evaluate potential environmental effects and preparedness in the event of accidental spills or encountering negative impacts during construction. Please provide all detailed supporting studies and contingency plans once completed.**

A Spill Prevention and Response Plan will be submitted to the Conservation Authorities as part of the permit application for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. This permit application is expected to be submitted in summer 2019 and can be shared with the City.

- 2. The City of Mississauga requested a copy of Imperial Oil's Spill Response Plan, which was not included in the draft Environmental Report. If this cannot be provided to the City, please provide an explanation and confirm what the anticipated response time will be in the event of a spill and who at the City and the Region of Peel will be notified of the spill incident.**

Provided with this letter are the existing Emergency Response Plans for the Sarnia Products Pipeline that are in use for Mississauga and the surrounding region. Imperial is currently reviewing these plans and making updates as appropriate for the Waterdown to Finch Project. Any revisions can be shared with the City once available.

- 3. The City of Mississauga had requested more information regarding potential dewatering and discharge activities within the municipality. The draft Environmental Report did not include sufficient information. If any groundwater dewatering activities, or other activities that requires discharge of water, occur within the municipal boundaries, please indicate how the discharge water will be handled; the draft Environmental Report did not include such information. Please be advised that any discharge water entering the City's or Region of Peel's storm sewer system will require an approval in advance of discharge activities, regardless if a provincial Permit to Take Water was obtained or not. A Permit to Take Water does not include approval to discharge to a municipal system.**

Dewatering will be required during construction. Potential sources include groundwater, storm water, and standing surface water primarily in areas where the installation method is open cut trench. Imperial will be submitting an application for a provincial Water Taking Permit to manage water originating from these sources. A Water Management Plan will be developed to support this application and will provide details and mitigation related to discharge to the environment. This permit application is expected to be submitted in summer 2019 and can be shared with the City.

Imperial is also evaluating the need to take hydrostatic testing water from the City's or the Region of Peel's water systems and discharge the water to their storm sewer systems. Imperial will work directly with the City and/or the Regional municipality for approvals in advance of any discharge activities to these systems.

4. **Imperial Oil's proposed Communication Plan only includes affected residents and businesses of planned construction activities and disturbances. The Communication Plan should also include key municipal contacts including Councillors in the affected Wards. In this way, if residents or businesses in the area who did not receive the notifications, call the City's 311 line, City staff will be better prepared to respond to such inquiries and redirect any specific questions to the appropriate Imperial Oil project representatives. This will help to improve customer service and allay any potential concerns.**

Imperial is committed to providing timely and accessible information throughout the duration of the Project. Since its launch in May 2018, Imperial has implemented a robust public engagement process. In addition to community engagement, Imperial has provided notifications and held briefings as required with the Mayor's office, Councillors in affected wards, City of Mississauga staff, as well as local Members of Provincial Parliament and local Members of Parliament in affected ridings. As part of the Communication Plan, these key contacts, including municipal staff, local Councillors and the Mayor's office, will be provided information and contact details to support and direct inquiries from residents or businesses. Imperial will also ensure 311 is notified and the construction notification will be made publically available on Imperial's Waterdown to Finch Project website at imperialoil.ca/waterdowntofinch.

5. **In Appendix B: Consultation Key Comment and Response Table, the City of Mississauga's Key Comments is limited to a single comment by a local Councillor. This table is insufficient and does not properly reflect the level of detail and types of comments submitted to Imperial Oil by City of Mississauga staff. While it may be reasonable for Imperial Oil to summarize City staff comments to a shorter list of issues, it is not acceptable to completely omit staff comments entirely in the Environmental Report. At minimum, Imperial Oil should indicate they received a set of written comments from the City of Mississauga, dated September 14, 2018 and provide a summary of their responses to date.**

Imperial acknowledges the inquiries from the City of Mississauga and its subsequent responses. Topics included pipeline integrity management, access agreements, tree line protection, erosion control, heritage planning, construction environmental management, and consultation activities. The questions were reviewed by subject matter experts, and we appreciate the time and resources that were allocated to developing the queries. The technical considerations have been shared with the discipline leads who oversee those particular areas of the Project.

The Environmental Report formed a part of Imperial's pre-filed evidence submission to the Ontario Energy Board. It was developed in advance of the Leave to Construct application, and includes a thorough review of the natural, social, economic, cultural and built components of Project. This report was authored by an independent third-party and submitted to a committee consisting of provincial and municipal agencies, as well as other affected and interested parties to provide technical input. On February 1, 2019, an electronic copy of the Environmental Report was also submitted to respective municipalities, including Mississauga. The Environmental Report includes a Key Comment and Response Table that is intended to summarize comments or concerns raised by interested parties

through the consultation process as they pertain to the development of the Environmental Report or broader environmental considerations.

Imperial's Leave to Construct document includes Exhibit H, Record of Consultation and supporting documents. Exhibit H includes a broader record of consultation, stakeholder interactions and detailed supporting documents such as correspondence, materials and meeting minutes. All questions and related responses for the City of Mississauga will be captured in an update to the broader Record of Consultation in the coming months and be placed into the official public record through that reporting channel. Some of the considerations raised in the City of Mississauga's September submission are also subject to ongoing technical discussions between the City and Imperial, including the land and permitting team, supported by the company's infrastructure development consultant, CanACRE.

6. Please provide a Contaminated Materials Management and Handling Plan describing the handling, testing, storage, treatment and disposal of contaminated soil and water (i.e. groundwater and surface water).

The Contaminated Materials Management and Handling Plan is not part of a regulatory application submission. Imperial is willing to work with the City to understand and address their concerns related to handling of contaminated materials. A Contaminated Materials Management and Handling Plan will be developed prior to construction.

7. Please provide a Monitoring and Maintenance Plan to demonstrate safety once the pipeline is in operation.

Monitoring and maintenance of the proposed pipeline will continue as is currently in place for the existing line and is compliant with TSSA requirements. These measures include 24/7 pressure monitoring by a remote operations control centre, weekly aerial patrols and patrols by truck and by foot conducted along the pipeline's path, and specialized tools such as SmartBalls and Smart Pigs used to confirm both internal and external characteristics of the pipeline and identify necessary repairs.

8. We look forward to reviewing the Erosion & Sediment Control, Water Management and Restoration Plans. Please note that at the design stage, site specific plans would be expected for each watercourse crossing.

An Erosion and Sediment Control Plan and Water Management Plan will be submitted to the Ministry of Environment, Conservation and Parks in support of the provincial Water Taking Permit and can be shared at that time with the City. A Reclamation Plan will be developed and shared with the City as per permitting requirements. Site-specific plans related to watercourse crossings will be included in the Conservation Authority permit applications.

9. In the detailed design phase, please indicate when crossing over underground utilities (e.g. storm sewers) with heavy equipment how the risk of damaging these utilities will be avoided or mitigated.

During the design phase, all lands planned for construction are surveyed to identify all underground utilities. Once identified, temporary crossing applications are submitted, which include details related to equipment used for crossing and respective loads. All requirements and conditions of the approvals will be adhered to by Imperial. Matting and air bridging are engineered techniques that can be used to spread the load of heavy equipment without impacting underground utilities only if needed.

• *MiWay.*

10. We don't have any new comments at this time. However, there are a number comments from the initial comment sheet that have yet to be answered. If Imperial Oil could please provide responses to the outstanding comments and provide details/drawings regarding the limits of construction/staging as soon as available. MiWay would like to ensure all potential impacts to stations, routes and transit infrastructure are identified and mitigated.

A submission of crossing drawings was submitted to the City for review and comment on April 15, 2019, including roads operated by the City, and City roads under MTO jurisdiction. An additional submission of crossing drawings was submitted on April 29, 2019, specific to MiWay road infrastructure such as bus rapid transit and parking.

II. Community Services

- *Heritage Planning:*

- 11. Heritage planning has reviewed the draft report and look forward to reviewing the Stage 1 Archaeological Assessment as well as the Existing Conditions Report on cultural heritage landscapes and built heritage resources once completed. Heritage planning may have further comments once we have had the opportunity to review both documents.**

Once submitted to the Ministry of Tourism, Culture and Sport, Imperial can share the Stage 1 Archaeological Assessment Report. A Heritage Impact Assessment will be developed and submitted to the municipalities for review and approval, where required under the *Ontario Heritage Act*.

- *Parks & Forestry:*

- 12. Forestry staff look forward to reviewing site specific plans for work taking place within or adjacent to Mississauga's Natural Heritage System. Plans should include: extent of work area identifying site specific impacts to natural heritage features, detailed mitigation measures from Environmental Report to be implemented, and restoration plans.**

Imperial can provide mapping identifying the proposed workspace overlapping or adjacent to Natural Heritage Features and site-specific mitigation measures prior to construction. A Reclamation Plan will be developed and shared with the City as per permitting requirements.

- 13. Forestry staff advise that Page 4-17 identifies that W024 does not meet the criteria for significant woodland. As per Mississauga's Official Plan Section 6.3.14, the woodland is greater than 0.5 hectares and as such meets the criteria for a Natural Green Space. As such, in addition to site specific plans for work within or adjacent to the Natural Heritage System, please provide site specific plans for work surrounding W024 for review by Forestry. Impacts to trees outside of Natural Heritage System and W024 should also be reviewed by Forestry.**

We are in agreement that the feature W024 does not meet the requirements of a significant woodland, but acknowledge that the feature would meet the requirements of Natural Green Space under the City's Official Plan. Information and plans around tree removals outside of the Natural Heritage System and around W024 will be provided through the City permitting process.

- 14. In regard to proposed construction work that will occur within City owned parks, please provide additional information regarding construction access and remediation agreements with the City and any adverse impact including any damage or impairment to the natural environment.**

Temporary access roads and workspaces will be required to construct the project. Imperial will work with the City to secure all necessary construction access or Consent to Enter agreements for City-owned parks, and adhere to mutually agreed upon remediation conditions such agreements contain.

- 15. This Division further understands that Imperial Oil wants to commence the construction of the pipeline at the end of 2019 and complete the construction late 2020. Community Services Department has several Off-Road Trails (ORT's), within the corridor, scheduled to be constructed before (pre-construction work) and during the pipeline construction. As such, further discussion is required to coordination construction timeline.**

The City and Imperial previously discussed the upcoming construction of ORT7 within the corridor on a conference call on August 10, 2018. Staff from Mississauga Parks later provided Imperial with CAD and PDF files of the ORT7 design plans on August 17, 2018, which were reviewed in tandem with initial pipeline routing considerations. For the majority of the extent of ORT7, the pipeline is proposed on the

opposite side of the corridor and will use Horizontal Directional Drilling below grade to minimize disruptions in the area.

Imperial would like to request that any ORT design plan updates be shared for further review in advance of a discussion regarding layout and construction scheduling and coordination.

16. The draft Report should include the impacts the pre-construction and construction would have on the natural environment including timing of the City's new and reconstructed ORT's. Staff would more than to help reference the timing of construction or reconstruction of ORT's in the draft Environmental Report – Imperial Oil that may impact the pipeline.

For the majority of the extent of ORT7, the pipeline is proposed on the opposite side of the corridor and will use Horizontal Directional Drilling to minimize disruptions in the area, based on City plans provided to Imperial in August 2018. As such Imperial do not anticipate any impact to the surface environment during pre-construction or during construction.

Imperial would like to request that any updated plans and schedules for ORT7, as well as any existing ORTs that are to be reconstructed, be shared.

If you would like to discuss any of the above comments further, or have any other questions please do not hesitate to contact me.

Yours truly,



Corinne Thiessen
Stakeholder Engagement Regional Lead

on behalf of Jessie Malone
Environmental and Regulatory Lead

P: 587.476.4799

E: jessie.m.malone@esso.ca

McArthur, Cheryl

From: Thiessen, Corinne E <corinne.e.thiessen@esso.ca>
Sent: May 3, 2019 3:57 PM
To: Auryn Soares
Cc: Malone, Jessie M; Bill Moffatt; Lincoln Kan; Jeff Smylie; Tourigny, Ron; Eric Mark
Subject: RE: Waterdown to Finch Project: Draft Environmental Report - Mississauga Comments
Attachments: City_of_Mississauga_WatFin_ER_review_Imperial_Responses_05032019.pdf; ERP091601 SPPL Pipeline Spill Response Tactics - Peters Corners to Toron....pdf; ERP091603 SPPL High Water Action Plans and Pipeline Spill Response Tacti....pdf; ERP091608 SPPL Pipeline Spill Response Tactics - Cooksville Creek.pdf; ERP091604 SPPL High Water Action Plans and Pipeline Spill Response Tacti....pdf

Auryn,

I hope you are doing well.

Jessie Malone, our environmental and regulatory lead, is currently out of the office and I am reaching out on her behalf. We appreciate the comments from the City of Mississauga and offer our responses in the attached letter.

I also wanted to confirm that we recently submitted our Leave to Construct application with the Ontario Energy Board, which can be found on our project website at imperialoil.ca/waterdowntofinch or on the [OEB's application webpage](#).

c

Thank you and have a great weekend!

Corinne Thiessen

Stakeholder Engagement Regional Lead

Canada Fuels Operations, Imperial

E corinne.e.thiessen@esso.ca

P 587.476.3508 C 647.467.1914

imperialoil.ca | [Twitter](#) | [YouTube](#)

From: Auryn Soares [<mailto:Auryn.Souares@mississauga.ca>]
Sent: Wednesday, April 3, 2019 3:02 PM
To: Eric Mark <emark@canacre.com>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Bill Moffatt <Bill.Moffatt@mississauga.ca>; Lincoln Kan <Lincoln.Kan@mississauga.ca>; Jeff Smylie <Jeff.Smylie@mississauga.ca>
Subject: RE: Waterdown to Finch Project: Draft Environmental Report - Mississauga Comments

Hello Eric,

We appreciated the opportunity to review the draft Environmental Report. The document had been circulated to staff at the City of Mississauga and our comments have been consolidated in the attached letter for your consideration.

We look forward to the updated Environmental Report and to continue to actively participate in the project.

**Auryn Soares**

Storm Drainage Coordinator, Environmental Services



ROC2495 (2 pages)

City of Mississauga
Legal Services
300 City Centre Drive
MISSISSAUGA, ON L5B 3C1

Patrick M. Murphy MBA LL.B
Tel. 905.615.3200 ext. 8710
Fax: 905.615-3252
patrick.murphy@mississauga.ca

June 7, 2019

Via Email (christine.long@oeb.ca)

Ms. Christine E. Long,
Registrar
Office of the Registrar
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Dear Ms. Long:

Re: Ontario Energy Board File No. EB-2019-0007
Imperial Oil Limited – Application for leave to construct the Waterdown to
Finch Project in the City of Hamilton, the City of Burlington, the Town of
Milton, the Town of Oakville, the City of Mississauga, and the City of Toronto

This letter serves to notify you of a recent change in contact information for the City of Mississauga. I will now be the contact in place of Annie M. Thuan. Please update your records with my contact information, which is listed below:

Mr. Patrick M. Murphy MBA LL.B
Legal Counsel, Environmental
City of Mississauga, Legal Services
300 City Centre Drive
Mississauga, ON L5B 3C1
Tel. 905.615.3200, Ext. 8710
Fax 905.615.3252
patrick.murphy@mississauga.ca

With respect to Procedural Order No. 1 (May 31, 2019), I hereby request an extension of one month for each of the items listed:

1. OFB staff and intervenors shall request any information and material from Imperial Oil that is in addition to Imperial Oil's evidence and that is relevant to the hearing by written interrogatories filed with the OFB and delivered to Imperial Oil and the other intervenors by June 14, 2019.
2. Imperial Oil shall file with the OEB and deliver to all intervenors complete written responses to all interrogatories by July 2, 2019.
3. OEB staff and intervenors may file written submissions with the OEB and serve it on all Imperial Oil and intervenors by July 12, 2019.
4. Imperial Oil may file a written reply submission with the OEB and serve it on all intervenors by July 22, 2019.

The extension is necessary for me to have sufficient time to review the file, confer with the City's working team and prepare interrogatories and submissions. In addition, depending upon the nature and extent of Imperial Oil's responses to interrogatories, additional time beyond the one-month extension requested above may be required to process the information and pose and/or respond to further questions.

I have also canvassed legal counsel from the City of Toronto, the City of Hamilton, the Region of Peel and the Regional Municipality of Halton, Legal counsel are fully supportive of the need for an extension especially given the tight deadlines.

Thank you for your consideration which is appreciated.

Yours truly,



Patrick M. Murphy
Legal Counsel, Environmental

cc: Nicholas Rolfe - City of Toronto (nicholas.rolfe@toronto.ca)
Katherine Frankl - City of Toronto (kfrankl@toronto.ca)
Rachel Godley - Regional Municipality of Peel (rachel.godley@peelregion.ca)
Justyna Hidalgo - City of Hamilton (justyna.hidalgo@hamilton.ca)
Meredith Baker - Regional Municipality of Halton (meredith.baker@halton.ca)

From: [Thiessen, Corinne E](#)
To: [John Kelly](#)
Cc: [Tourigny, Ron](#); [Malone, Jessie M](#)
Subject: RE: Imperial Waterdown to Finch Project: Environmental Report
Date: Friday, May 3, 2019 7:30:23 AM
Attachments: [image001.png](#)
[image002.jpg](#)

Hi John,

In October, we held a large-scale emergency response exercise focused on the Waterdown to Finch pipeline that included internal and external participants. The exercise included a simulated diesel release into the Humber River in the Etobicoke area and was followed by two days of mock response. The response included an incident command setup, staffed by Imperial's local operations team, Imperial and ExxonMobil's Americas Regional Response Team, as well as municipal, provincial and federal agencies. Many local government representatives, notably the City of Toronto, were involved in both scenario planning and execution, as well as participation as actors in the simulation. [A highlights video of the exercise can be found on our Waterdown to Finch Project webpage under Focused on safety: www.imperialoil.ca/waterdowntofinch](#)

Below is the list of individuals from the City of Toronto who engaged in the emergency response exercise:

Toronto Fire Services

- Joe Del Vasto
- Andrew Gloger

City of Toronto

- Nadia Mammone-Remy
- Patrick Shuman
- Bill Snodgrass
- Wayne Joseph
- Carlos Rodriguez
- Jamila Punja
- Sherry Waters
- Adam Zietara

We are also interested in meeting with emergency services representatives from the City of Toronto to discuss the project's progression in more detail.

Please let me know if you have any further questions.

Thank you,

Corinne Thiessen

Stakeholder Engagement Regional Lead

Canada Fuels Operations, Imperial

E corinne.e.thiessen@esso.ca

P 587.476.3508 C 647.467.1914

imperialoil.ca | [Twitter](#) | [YouTube](#)

From: John Kelly [<mailto:John.Kelly@toronto.ca>]

Sent: Thursday, May 2, 2019 4:22 PM

To: Thiessen, Corinne E <corinne.e.thiessen@esso.ca>

Subject: RE: Imperial Waterdown to Finch Project: Environmental Report

From: [Malone, Jessie M](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: EB-2019-0007 Imperial Oil Limited - MUNICIPALITY OF PEEL LATE INTERVENTION REPLY
Date: Thursday, June 6, 2019 5:58:09 AM
Attachments: [image001.jpg](#)
[image002.jpg](#)
[image003.png](#)
[OEB Reply Municipality of Peel late Intervention 20190605.pdf](#)
[PO1 Imperial LTC 20190531.pdf](#)

From: Zulma DeBonis [mailto:Zulma.DeBonis@oeb.ca]

Sent: Wednesday, June 5, 2019 10:15 AM

To: 'rachel.godley@peelregion.ca' <rachel.godley@peelregion.ca>

Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Laing, Ian R <ian.r.laing@esso.ca>; 'regulatory@hydroone.com' <regulatory@hydroone.com>; 'robert.anderson@bell.ca' <robert.anderson@bell.ca>; 'alex.greco@cme-mec.ca' <alex.greco@cme-mec.ca>; 'mathew.wilson@cme-mec.ca' <mathew.wilson@cme-mec.ca>; 'Atul.Sharma@gtaa.com' <Atul.Sharma@gtaa.com>; 'pmcmahon@uniongas.com' <pmcmahon@uniongas.com>; 'nicholas.rolfe@toronto.ca' <nicholas.rolfe@toronto.ca>; 'john.kelly@toronto.ca' <john.kelly@toronto.ca>; 'auryn.soares@mississauga.ca' <auryn.soares@mississauga.ca>; 'annie.thuan@mississauga.ca' <annie.thuan@mississauga.ca>; 'stayfitpaddle@gmail.com' <stayfitpaddle@gmail.com>; 'timvirtanen10@gmail.com' <timvirtanen10@gmail.com>; 'Justyna.Hidalgo@hamilton.ca' <Justyna.Hidalgo@hamilton.ca>; 'guy.paparella@hamilton.ca' <guy.paparella@hamilton.ca>; 'kfrankl@toronto.ca' <kfrankl@toronto.ca>; 'tony.oliveri@halton.ca' <tony.oliveri@halton.ca>; 'meredith.baker@halton.ca' <meredith.baker@halton.ca>; Laing, Ian R <ian.r.laing@esso.ca>

Subject: EB-2019-0007 Imperial Oil Limited - MUNICIPALITY OF PEEL LATE INTERVENTION REPLY

Ms. Godley,

Please see the attached documents in respect to the above matter.

Thank you,

Zulma DeBonis, Case Administrator, Applications Administration, Office of the Registrar

2300 Yonge Street, 27th Floor, Toronto ON M4P 1E4 | ☎ 416-481-1967 | registrar@oeb.ca | OEB.ca

OEB CORPORATE - BILINGUAL



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From: [Thiessen, Corinne E](mailto:Thiessen.Corinne.E)
To: Christopher.Leite@halton.ca
Cc: Ralph.Blauel@halton.ca; Tony.Oliveri@halton.ca; [D'arci McFadden](mailto:D'arci.McFadden)
Subject: RE: Halton & Emergency Response Plan
Date: Friday, May 3, 2019 2:01:24 PM
Attachments: [image001.jpg](#)
[image003.jpg](#)
[image005.jpg](#)
[image007.jpg](#)
[image009.jpg](#)
[image011.jpg](#)
[ERP091601 SPPL Pipeline Spill Response Tactics - Peters Corners to Toronto.pdf](#)
[ERP091607 SPPL Pipeline Spill Response Tactics - 16 Mile Creek.pdf](#)
[ERP091606 SPPL Pipeline Spill Response Tactics - Bronte Creek.pdf](#)
[image002.jpg](#)
[image004.jpg](#)
[image006.jpg](#)
[image008.jpg](#)
[image010.jpg](#)
[image012.jpg](#)

Hi Chris,

Thank you for reaching out – my apologies for the delay.

Please find attached the existing emergency response plans for the Sarnia Products Pipeline that are in use for Halton and the surrounding region. Imperial is currently reviewing these plans and making updates as appropriate for the Waterdown to Finch Project. We would be happy to provide any revisions once available.

In the meantime, Imperial is open to meeting with the Emergency Management department at the Region of Halton to start a discussion and provide further detail. Please let me know if this can be coordinated through your office.

Many thanks,

Corinne Thiessen

Stakeholder Engagement Regional Lead

Canada Fuels Operations, Imperial

E corinne.e.thiessen@esso.ca

P 587.476.3508 C 647.467.1914

imperialoil.ca | [Twitter](#) | [YouTube](#)

From: Leite, Christopher <Christopher.Leite@halton.ca>

Sent: May 1, 2019 12:37 PM

To: D'arci McFadden <dmcfadden@national.ca>

Cc: Blauel, Ralph <Ralph.Blauel@halton.ca>; Oliveri, Tony <Tony.Oliveri@halton.ca>

Subject: Waterdown to Finch Project - Emergency Response Plans

Hi again D'arci,

I hope all is well on your end.

We are reviewing the Imperial OEB application and wanted to follow-up on our requests to review the project and pipeline's Emergency Response Plan(s).



Ontario
Energy
Board

Commission
de l'énergie
de l'Ontario

BY E-MAIL

June 5, 2019

Tony Oliveri
Director of Business Planning and Corporate Initiatives CAO's Office,
Halton Region
1151 Bronte Road
Oakville, Ontario L6M 3L1

Dear Mr. Oliveri:

**Re: Request for late intervenor status
Imperial Oil Limited - Application for leave to construct the Waterdown to
Finch Project
Ontario Energy Board File Number: EB-2019-0007**

This letter is in response to the Regional Municipality of Halton's ("Halton") request for late intervenor status in the above-referenced application. Halton's intervention request was received by the Ontario Energy Board (OEB) on May 31, 2019 after the deadline for filing such requests had closed.

Halton states that it has a direct interest in this application because approximately 22.5 kilometres of the proposed pipeline will be located on lands under Halton's jurisdiction.

Imperial Oil did not object to Halton's request.

The OEB is satisfied that Halton has a "substantial interest" in the proceeding within the meaning of Rule 22.02 of the OEB's *Rules of Practice and Procedure* and is approved as an intervenor. Halton shall accept the record to this point and is reminded that pursuant to Procedural Order No. 1, dated May 31, 2019, intervenor interrogatories are due by June 14, 2019.

Yours truly,

Original signed by

Christine E. Long
Registrar
Office of the Registrar

Encl. Procedural Order No. 1

c: All parties in EB-2019-0007

From: [Malone, Jessie M](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: EB-2019-0007 Imperial Oil Limited - MUNICIPALITY OF HALTON- LATE INTERVENTION REPLY
Date: Wednesday, June 5, 2019 7:01:26 AM
Attachments: [image001.jpg](#)
[image002.jpg](#)
[image003.png](#)
[OEB Reply Municipality of Halton Late Intervention 20190605.pdf](#)
[PO1 Imperial LTC 20190531.pdf](#)

From: Zulma DeBonis [mailto:Zulma.DeBonis@oeb.ca]

Sent: Wednesday, June 5, 2019 6:44 AM

To: 'tony.oliveri@halton.ca' <tony.oliveri@halton.ca>

Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Laing, Ian R <ian.r.laing@esso.ca>; 'regulatory@hydroone.com' <regulatory@hydroone.com>; 'robert.anderson@bell.ca' <robert.anderson@bell.ca>; 'alex.greco@cme-mec.ca' <alex.greco@cme-mec.ca>; 'mathew.wilson@cme-mec.ca' <mathew.wilson@cme-mec.ca>; 'Atul.Sharma@gtaa.com' <Atul.Sharma@gtaa.com>; 'pmcmahon@uniongas.com' <pmcmahon@uniongas.com>; 'nicholas.rolfe@toronto.ca' <nicholas.rolfe@toronto.ca>; 'john.kelly@toronto.ca' <john.kelly@toronto.ca>; 'auryn.soares@mississauga.ca' <auryn.soares@mississauga.ca>; 'annie.thuan@mississauga.ca' <annie.thuan@mississauga.ca>; 'stayfitpaddle@gmail.com' <stayfitpaddle@gmail.com>; 'timvirtanen10@gmail.com' <timvirtanen10@gmail.com>; 'Justyna.Hidalgo@hamilton.ca' <Justyna.Hidalgo@hamilton.ca>; 'guy.paparella@hamilton.ca' <guy.paparella@hamilton.ca>; 'kfrankl@toronto.ca' <kfrankl@toronto.ca>; 'tony.oliveri@halton.ca' <tony.oliveri@halton.ca>; 'meredith.baker@halton.ca' <meredith.baker@halton.ca>; 'rachel.godley@peelregion.ca' <rachel.godley@peelregion.ca>; Laing, Ian R <ian.r.laing@esso.ca>

Subject: EB-2019-0007 Imperial Oil Limited - MUNICIPALITY OF HALTON- LATE INTERVENTION REPLY

Mr. Oliveri,

Please see the attached documents in respect to the above matter.

Thank you,

Zulma DeBonis, Case Administrator, Applications Administration, Office of the Registrar

2300 Yonge Street, 27th Floor, Toronto ON M4P 1E4 | ☎ 416-481-1967 | registrar@oeb.ca |

OEB.ca

OEB CORPORATE - BILINGUAL



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From: [Malone, Jessie M](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: EB-2019-0007 Imperial Oil Limited - MUNICIPALITY OF HALTON- LATE INTERVENTION REPLY
Date: Wednesday, June 5, 2019 9:36:05 PM
Attachments: [image001.jpg](#)
[image002.jpg](#)
[image003.png](#)

From: Oliveri, Tony [<mailto:Tony.Oliveri@halton.ca>]
Sent: Wednesday, June 5, 2019 9:11 AM
To: 'Zulma DeBonis' <Zulma.DeBonis@oeb.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Laing, Ian R <ian.r.laing@esso.ca>; 'regulatory@hydroone.com' <regulatory@hydroone.com>; 'robert.anderson@bell.ca' <robert.anderson@bell.ca>; 'alex.greco@cme-mec.ca' <alex.greco@cme-mec.ca>; 'mathew.wilson@cme-mec.ca' <mathew.wilson@cme-mec.ca>; 'Atul.Sharma@gtaa.com' <Atul.Sharma@gtaa.com>; 'pmcmahon@uniongas.com' <pmcmahon@uniongas.com>; 'nicholas.rolfe@toronto.ca' <nicholas.rolfe@toronto.ca>; 'john.kelly@toronto.ca' <john.kelly@toronto.ca>; 'auryn.soares@mississauga.ca' <auryn.soares@mississauga.ca>; 'annie.thuan@mississauga.ca' <annie.thuan@mississauga.ca>; 'stayfitpaddle@gmail.com' <stayfitpaddle@gmail.com>; 'timvirtanen10@gmail.com' <timvirtanen10@gmail.com>; 'Justyna.Hidalgo@hamilton.ca' <Justyna.Hidalgo@hamilton.ca>; 'guy.paparella@hamilton.ca' <guy.paparella@hamilton.ca>; 'kfrankl@toronto.ca' <kfrankl@toronto.ca>; Baker, Meredith <Meredith.Baker@halton.ca>; 'rachel.godley@peelregion.ca' <rachel.godley@peelregion.ca>; Laing, Ian R <ian.r.laing@esso.ca>
Subject: RE: EB-2019-0007 Imperial Oil Limited - MUNICIPALITY OF HALTON- LATE INTERVENTION REPLY

Thank you for you email. I acknowledge receipt of the OEB’s acceptance of The Regional Municipality of Halton’s request for intervenor status.

Tony Oliveri
Director
Business Planning & Corporate Initiatives
CAO's Office
Halton Region
905-825-6000, ext. 7082 | 1-866-442-5866



This message, including any attachments, is intended only for the person(s) named above and may contain confidential and/or privileged information. Any use, distribution, copying or disclosure by anyone other than the intended recipient is strictly prohibited. If you are not the intended recipient, please notify us immediately by telephone or e-mail and permanently delete the original transmission from us.

From: [Imperial in Ontario](#)
To: "David Moco"
Subject: Question regarding start date
Date: Friday, May 3, 2019 2:00:32 PM

Hello David,
Thank you for contacting Imperial.

We currently have two active projects related to the Sarnia Products Pipeline in the Greater Toronto and Hamilton Area.

Waterdown to Finch Project

- The Waterdown to Finch Project runs from Imperial's Waterdown pump station in rural Hamilton to our terminal storage facility in Toronto's North York area.
- Operating safely in the region for many years, Imperial is planning to replace approximately 63-kilometres of the line with new pipe.
- Subject to provincial regulatory review and receipt of all permits, Imperial anticipates construction to begin in late 2019 with completion targeted for late 2020.
- Please visit the [Waterdown to Finch Project website](#) for more information about the project including maps, timelines, safety modules, as well as our recent regulatory documents.

Credit River Valley Project

- As part of our ongoing maintenance work to facilitate continued safe pipeline operation, Imperial plans to replace a short segment of the Sarnia Products Pipeline beneath the Credit River.
- This roughly 600 metre segment replacement is a preventative measure to mitigate changing river flow and its impact on the line.
- Construction activities commenced this spring and include a trenchless construction technology, which is the least intrusive technique for installing underground pipeline infrastructure.
- Please visit the [Credit River Valley Project website](#) for more information about the project including maps, timelines, safety modules, and more information about our trenchless drilling technology.

Please let me know if you have any further questions.

Best regards,

Corinne Thiessen
Stakeholder Engagement Regional Lead
Canada Fuels Operations, Imperial

From: [Matthew Scoular](#)
To: [Charles Priddle](#)
Cc: [Malone, Jessie M](#); [Curtis Campbell](#); [James Watson](#); [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: Imperial - Waterdown to Finch Project
Date: Tuesday, May 7, 2019 3:12:56 PM
Attachments: [image001.png](#)
[A.1_WFP_HaltonConcordanceLetter_20190507.pdf](#)
[Halton_Crossings_050719.zip](#)
Importance: High

Hi Charles,

As you discussed with Jessie in April, the following are attached:

1. Waterdown to Finch Project – Watercourse and Wetland Crossing Update and Application Concordance letter that includes the following:
 - a. Updated watercourse and wetland crossing list that includes ERM's assessment of which crossings are within Regulated Areas and will require a Ontario Regulation (O.Reg.) permit
 - b. Proposed O.Reg. application concordance with application checklist (s) and correspondence
 - c. Application schedule (proposed Spring submission and Fall supplemental submission)
2. The following shapefiles:
 - a. Application Case Project footprint (footprint has been updated since the Environmental Report and was used to develop the updated watercourse and wetland crossing lists)
 - b. Watercourse and wetland crossings within Conservation Authority jurisdiction that are listed in Attachment A of the letter.

Please confirm if you are in agreement with our assessment of which crossings are within Regulated Areas and will require a permit, the proposed O.Reg. concordance, and the staged application approach. Can you please provide a response on these questions by **May 15, 2019**? To start coordination, we would like to offer you a site visit during one of the following weeks:

• **June 2 – 8, or June 9 – 15.**

We would appreciate a response this week with some preferred dates, so we can schedule the visit with you.

Please let us know if you have any questions. Thank-you.

Best Regards,

Matt Scoular, M.E.S., MCIP, RPP
Project Manager / Senior Consultant

ERM

120 Adelaide Street West | 20th Floor | Suite 2020
Toronto, ON | Canada | M5H 1T1

T +1 416 646 3608 | M +1 416 567 7126

E matthew.scoular@erm.com | W www.erm.com

From: [Matthew Scoular](#)
To: Liam.Murray@cvc.ca
Cc: [Malone, Jessie M](#); [James Watson](#); [Curtis Campbell](#); [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: Imperial - Waterdown to Finch Project
Date: Tuesday, May 7, 2019 3:16:55 PM
Attachments: [image001.png](#)
[A.1_WFP_CVCConcordanceLetter_20190507.pdf](#)
[CVC_Crossings_050719.zip](#)
Importance: High

Hi Liam,

As you discussed with Jessie in April, the following are attached:

1. Waterdown to Finch Project – Watercourse and Wetland Crossing Update and Application Concordance letter that includes the following:
 - a. Updated watercourse and wetland crossing list that includes ERM's assessment of which crossings are within Regulated Areas and will require a Ontario Regulation (O.Reg.) permit
 - b. Proposed O.Reg. application concordance with application checklist (s) and correspondence
 - c. Application schedule (proposed Spring submission and Fall supplemental submission)
2. The following shapefiles:
 - a. Application Case Project footprint (footprint has been updated since the Environmental Report and was used to develop the updated watercourse and wetland crossing lists)
 - b. Watercourse and wetland crossings within Conservation Authority jurisdiction that are listed in Attachment A of the letter.

Please confirm if you are in agreement with our assessment of which crossings are within Regulated Areas and will require a permit, the proposed O.Reg. concordance, and the staged application approach. Can you please provide a response on these questions by **May 15, 2019**? To start coordination, we would like to offer you a site visit during one of the following weeks:

• **June 2 – 8, or June 9 – 15.**

We would appreciate a response this week with some preferred dates, so we can schedule the visit with you.

Please let us know if you have any questions. Thank-you.

Best Regards,

Matt Scoular, M.E.S., MCIP, RPP
Project Manager / Senior Consultant

ERM

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Toronto, ON | Canada | M5H 1T1

T +1 416 646 3608 | M +1 416 567 7126

E matthew.scoular@erm.com | W www.erm.com

From: [Matthew Scoular](#)
To: [Kenny, Darren](#)
Cc: [Malone, Jessie M](#); [James Watson](#); [Curtis Campbell](#); [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: Imperial - Waterdown to Finch Project
Date: Tuesday, May 7, 2019 3:10:39 PM
Attachments: [image001.png](#)
[A.1 WFP HCA ConcordanceLetter 20190507.pdf](#)
[Hamilton Crossings_050719.shp.zip](#)
Importance: High

Hi Darren,

As you discussed with Jessie in April, the following are attached:

1. Waterdown to Finch Project – Watercourse and Wetland Crossing Update and Application Concordance letter that includes the following:
 - a. Updated watercourse and wetland crossing list that includes ERM's assessment of which crossings are within Regulated Areas and will require a Ontario Regulation (O.Reg.) permit
 - b. Proposed O.Reg. application concordance with application checklist (s) and correspondence
 - c. Application schedule (proposed Spring submission and Fall supplemental submission)
2. The following shapefiles:
 - a. Application Case Project footprint (footprint has been updated since the Environmental Report and was used to develop the updated watercourse and wetland crossing lists)
 - b. Watercourse and wetland crossings within Conservation Authority jurisdiction that are listed in Attachment A of the letter.

Please confirm if you are in agreement with our assessment of which crossings are within Regulated Areas and will require a permit, the proposed O.Reg. concordance, and the staged application approach. Can you please provide a response on these questions by **May 15, 2019**? To start coordination, we would like to offer you a site visit during one of the following weeks:

• **June 2 – 8, or June 9 – 15.**

We would appreciate a response this week with some preferred dates, so we can schedule the visit with you.

Please let us know if you have any questions. Thank-you.

Best Regards,

Matt Scoular, M.E.S., MCIP, RPP
Project Manager / Senior Consultant

ERM

120 Adelaide Street West | 20th Floor | Suite 2020
Toronto, ON | Canada | M5H 1T1

T +1 416 646 3608 | M +1 416 567 7126

E matthew.scoular@erm.com | W www.erm.com

From: [Matthew Scoular](mailto:Matthew.Scoular@erm.com)
To: cmugo@trca.on.ca
Cc: [Malone, Jessie M](#); [James Watson](#); [Curtis Campbell](#); [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: Imperial - Waterdown to Finch Project
Date: Tuesday, May 7, 2019 3:37:19 PM
Attachments: [image001.png](#)
[TRCA Crossings_050719.zip](#)
[A.1_WFP_TRCAConcordanceLetter_20190507.pdf](#)
Importance: High

Hi Caroline,

As you discussed with Jessie in April, the following are attached:

1. Waterdown to Finch Project – Watercourse and Wetland Crossing Update and Application Concordance letter that includes the following:
 - a. Updated watercourse and wetland crossing list that includes ERM's assessment of which crossings are within Regulated Areas and will require a Ontario Regulation (O.Reg.) permit
 - b. Proposed O.Reg. application concordance with application checklist (s) and correspondence
 - c. Application schedule (proposed Spring submission and Fall supplemental submission)
2. The following shapefiles:
 - a. Application Case Project footprint (footprint has been updated since the Environmental Report and was used to develop the updated watercourse and wetland crossing lists)
 - b. Watercourse and wetland crossings within Conservation Authority jurisdiction that are listed in Attachment A of the letter.

Please confirm if you are in agreement with our assessment of which crossings are within Regulated Areas and will require a permit, the proposed O.Reg. concordance, and the staged application approach. Can you please provide a response on these questions by **May 15, 2019**? To start coordination, we would like to offer you a site visit during one of the following weeks:

• **June 2 – 8, or June 9 – 15.**

We would appreciate a response this week with some preferred dates, so we can schedule the visit with you.

Please let us know if you have any questions. Thank-you.

Best Regards,

Matt Scoular, M.E.S., MCIP, RPP
Project Manager / Senior Consultant

ERM

120 Adelaide Street West | 20th Floor | Suite 2020
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E matthew.scoular@erm.com | W www.erm.com

From: [Imperial in Ontario](#)
To: "Bryne Emeneau"
Subject: RE: Imperial Oil Replacement of Waterdown to Finch SPP section, Re: Ref your last email: Please send again
Date: Friday, May 10, 2019 12:37:23 PM

From: Bryne Emeneau <bemeneau@sympatico.ca>
Sent: Tuesday, May 7, 2019 3:10 PM
To: Imperial in Ontario <questions@imperialon.ca>
Cc: Kourosh Manouchehri <kmanouchehri@tssa.org>
Subject: Imperial Oil Replacement of Waterdown to Finch SPP section, Re: Ref your last email: Please send again

Hi Tim:

Thanks for your email. I'm very interested in the Waterdown to Finch replacement for the Imperial Sarnia Product Pipeline, and support the Leave to Construct application. The fact that sections of the SPP are nearly as old as I am, suggests that the reason for replacement is that this edition has deteriorated to an unsafe condition. In the Environmental Report, the reason(s) are not listed; what is the event/incident history for the line section? Have lessons been learned? What are they?

My interest comes from my material failure analysis background, and now as a retired P. Eng., I've followed the Engineer's Creed in my career, including dedicating my professional knowledge and skill to the advancement and betterment of human welfare. Put simply: that we learn from mistakes and hopefully as a result, any energy pipeline spill/leak events are corrected from happening in the future. What has Imperial learned from the SPP operating life cycle? Have provisions been made to incorporate lessons learned for the betterment of the Waterdown to Finch replacement? I can see a few like the use of HDD at waterway crossings and improved in line inspection. What else has improved?

My concerns focus on our watersheds, and protection of Mother Earth. Some prior energy pipeline system events, lead me to seek effective operation and maintenance of energy pipelines. These include as examples, the TNPI system leak at Bronte Creek discovered in 2010, and an unidentifiable leak source to the Humber River in 2014 May 31, where TNPI & SPP share a right of way at Albion Road. Is the current status of the Waterdown to Finch section such that field patrols, walking the line, needs to be more than "on a periodic frequency".

There is a need for more effective regulatory activity through the NEB and OEB-OPCC for federally and provincially operated pipelines. TNPI learned this from the 2010 March event at Bronte Creek. History has shown that the NEB and TNPI were late in respectively taking regulatory and corrective actions. Have there been any failures of the SPP system leading to petroleum product spills, such as over pressure events similar to what the TNPI system suffered? If so, what has been done to correct any deficiency?

Are there outstanding compliance actions which Imperial Oil is required to undertake for the SPP, particularly the Waterdown to Finch section, prior to the replacement?

Thanks,
Bryne Emeneau
305-415 Locust Street, Burlington, ON L7S 2J2
289-795-2635



Wendy Walberg LL.B., LL.M., *C.S. Appendix 11B
City Solicitor
Legal Services
55 John Street
Stn. 1260, 26th Flr., Metro Hall
Toronto ON M5V 3C6
Tel. (416) 392-8047
Fax (416) 397-5624

** Certified by the Law Society as a Specialist
in Municipal Law: Local Government*

Reply To: NICHOLAS ROLFE
Tel: (416) 392-7246
Fax: (416) 397-5624
Email: nicholas.rolfe@toronto.ca

Sent via courier and email

May 3, 2019

Ontario Energy Board
2300 Yonge Street, 27th floor
P.O. Box 2319
Toronto, ON M4P 1E4
Attn: Kirsten Walli

Dear Ms. Walli:

**Re: Imperial Oil Limited Application Number EB-2019-007 for Leave to Construct –
Waterdown to Finch Project (the "Project")**

The City of Toronto ("Toronto") is hereby applying to be an Intervenor in the above-noted application. Toronto's interest in this proceeding arises from the potential impacts of the Project on infrastructure, lands, and waters (including but not limited to source water protection issues) within its jurisdiction. The Project would pass through and directly impact Toronto.

Toronto intends to participate in the proceeding as necessary, and may submit evidence, argument or interrogatories, and/or cross-examine witnesses.

Toronto does not intend to seek an award of costs.

Toronto requests that copies of all materials filed in this proceeding be served on it as follows:

John Kelly, P.Eng
Director, Engineering Review
Engineering & Construction Services
City of Toronto
Metro Hall, 16th Floor
55 John Street
Toronto, Ontario M5V 3C6
Tel.: (416) 392-0455
Fax: (416) 392-4426
Email: john.kelly@toronto.ca

Nicholas Rolfe
City of Toronto Legal Services
Metro Hall, 23rd Floor
55 John Street
Toronto, Ontario M5V 3C6
Tel.: (416) 392-7246
Fax: (416) 397-5624
Email: nicholas.rolfe@toronto.ca

Should you have any questions or require further information in this regard, please do not hesitate to contact the undersigned.

Yours truly,



Nicholas Rolfe
City of Toronto, Legal Services

Cc: Jessie Malone, Imperial Oil Limited
Warren Woodhurst, Imperial Oil Limited

McArthur, Cheryl

From: Malone, Jessie M <jessie.m.malone@esso.ca>
Sent: May 23, 2019 6:05 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Application Number EB-2019-007 - Waterdown to Finch Project
Attachments: Letter Intervenor 3May2019 signed.pdf

From: Nicholas Rolfe [<mailto:Nicholas.Rolfe@toronto.ca>]
Sent: Friday, May 3, 2019 12:55 PM
To: 'kirsten.walli@ontarioenergyboard.ca' <kirsten.walli@ontarioenergyboard.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Woodhurst, Warren /C <warren.woodhurst1@esso.ca>; Katherine Frankl <Katherine.Frankl@toronto.ca>
Subject: Application Number EB-2019-007 - Waterdown to Finch Project

Dear Ms. Walli,

Please see the attached correspondence.

Thank you,

Nicholas Rolfe

Solicitor
City of Toronto, Legal Services
Metro Hall, 23rd Floor, Stn 1260
55 John Street
Toronto ON M5V 3C6

Tel: 416-392-7246
Fax: 416-397-5624

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May 3, 2019

Ontario Energy Board
Suite 2700, 2300 Yonge Street
P.O. Box 2319
Toronto, ON.
M4P 1E4

Attention: Ms. Kirsten Walli, Secretary

Re: EB-2019-0007
Imperial Oil Limited Leave to Construct Pipeline and Associated Infrastructure
Proposed Property Impacts
201 Verobeach Blvd., Toronto, ON

Dear Ms. Walli,

In response to the Ontario Energy Board's Notice of Application dated April 11, 2019, this letter has been prepared on behalf of the estate of Irja Virtanen as it relates to their above noted lands ("**subject property**"). We hereby give notice of our intention to intervene in the above noted proceeding. We intend to participate in the proceeding as necessary to determine issues, impacts, clarify or test evidence through interrogatories, and, if required, provide submissions and/or argument on issues pertinent to our interests.

Specifically, our interest in this proceeding arises from the proposed impacts to the above noted lands that have been identified by CanACRE Ltd. on behalf of Imperial Oil Limited. **Figure 1** below, has been provided by CanACRE Ltd. as a conceptual plan indicating the proposed area of impact on the subject property. We understand through CanACRE Ltd., that Imperial Oil Limited intends utilize the existing right-of-way directly adjacent to the subject property as a means of access for machinery, vehicle and construction materials in support of the construction of the pipeline and associated infrastructure.

Further, CanCARE Ltd. has claimed that the triangular portion identified on **Figure 1** over the front and side yards of the subject property is also required for the same purposes. The proposed impacted area of approximately 28m² (300 sq. ft.) is significant and currently supports several mature trees, landscaping and is directly adjacent the existing single detached residential dwelling on the subject property. Our specific concerns are as follows:

- Damage to the subject property
- Adverse impacts to the day to day enjoyment of the subject property
- Safety and liability

- Traffic and vehicular movement conflicts
- Noise, Dust and Vibration impacts
- Impact on the value of the subject property
- Impact on the ability to sell or market the subject property
- Impacts on title of the subject property; and
- Other issues and concerns that may arise.

Figure 1.



To date, we have not received any justification or demonstration from CanACRE Ltd. or Imperial Oil Limited as to why the use of the subject property is required.

The proposed impacts of this proposal are real and adverse. Accordingly, we intend to seek an award of costs as a person with interest in land that is affected by the process in accordance with the *OEB Practice Direction on Cost Awards*.

We have significant concerns and interest in the issues raised in EB-2019-0007 and request that all documents filed with the Board in this proceeding be served as follows:

Tim Virtanen
28 Rockcliffe Drive
Nobel, ON.
P0G 1G0
timvirtanen@gmail.com

And,

Peter Virtanen
6 Mandalane Drive
Schomberg, ON.
LOG 1T0
stayfitpaddle@gmail.com

Your truly,
Tim Virtanen

Cc: Peter Virtanen



ROC2567a (Letter - 2 pages)

City of Mississauga
Legal Services
300 City Centre Drive
Mississauga, ON L5B 3C1
www.mississauga.ca

FAX: 905-896-5106

WRITER'S DIRECT LINE: (905) 615-3200 Ext. 5393

May 6, 2019

VIA EMAIL & COURIER

Attention: Ms. Kirsten Walli, Board Secretary

Ontario Energy Board
Suite 2700, 2300 Yonge Street
P.O. Box 2319
Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: EB-2019-0007 - Imperial Oil Limited Leave to Construct Pipeline and Associated Infrastructure in the City of Hamilton to the City of Toronto (the "Project"): City of Mississauga Intervention

In response to the Ontario Energy Board's Notice of Application dated April 11, 2019, the City of Mississauga (the "City") hereby gives notice of its intention to intervene in the above-noted proceeding. This notice of intervention is filed pursuant to Rule 22 of the Board's *Rules of Practice and Procedure*. The City is directly affected by the proposed Project and requests that the Board grant the City intervenor status to participate in the proceeding.

The City is situated on the shores of Lake Ontario in the Regional Municipality of Peel. It is Canada's sixth largest and fastest growing major city with a population exceeding 700,000 residents and with a vibrant business community.

The City is responsible for the environmental and financial well-being of the municipality, the protection of persons and property, and the health, safety and well-being of its residents and businesses. The proposed Project and related construction activities will have an impact on the local environment, City infrastructure, as well as its residents and businesses. The proposed pipeline intersects with municipal roads, significant woodlands and wetlands, drinking water source protection areas and sensitive watercourses within the City. A malfunction of or release from the pipeline would directly affect those residing in and around the pipeline, and poses a serious risk to municipal infrastructure and the environment. Given this, the City has significant interest in the issues raised with respect to the Project, including ensuring that there are adequate ongoing maintenance and inspection programs and emergency management measures and response plans in place to safeguard the integrity of the pipeline.

City of Mississauga
Legal Services

2

The City intends to be an active participant in the proceeding as necessary to request information, identify issues, clarify, assess or test evidence through interrogatories, and, if required, provide submissions and/or argument on issues pertinent to its interests.

The City is satisfied if the Board conducts the review of this Application using a written hearing process.

The City does not intend to seek an award of costs as per the Board's Cost Award Guidelines.

The City requests that documents filed with the Board in this proceeding be served as follows:

Mr. Auryn Soares
Storm Drainage Coordinator
City of Mississauga
Suite 800, 201 City Centre Drive
Mississauga, ON L5B 2T4
905-615-3200 ext.3363
auryn.soares@mississauga.ca

And to its Counsel:

Ms. Annie Thuan
Deputy City Solicitor, Municipal Law (Acting)
City of Mississauga
Legal Services Division
300 City Centre Drive
Mississauga, ON L5B 3C1
905-615-3200, ext. 5622
annie.thuan@mississauga.ca

Respectfully submitted,



Mary Ellen Bench, BA, JD, CS, CIC.C
City Solicitor
City of Mississauga

c: Jessie Malone, Imperial Oil Limited
Warren Woodhurst, Imperial Oil Limited

From: [Malone, Jessie M](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Proceedings - Application No. EB-2019-0007 - Imperial Oil Waterdown to Finch Project
Date: Thursday, May 23, 2019 6:20:26 PM
Attachments: [image001.png](#)
[Letter to OEB \(Application No. EB-2019-0007\).pdf](#)

From: Gladys Chan [mailto:Gladys.Chan@mississauga.ca]

Sent: Monday, May 6, 2019 9:46 AM

To: 'registrar@oeb.ca' <registrar@oeb.ca>

Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Woodhurst, Warren /C <warren.woodhurst1@esso.ca>; Mary Ellen Bench <maryellen.bench@mississauga.ca>; Annie Thuan <Annie.Thuan@mississauga.ca>; Lindsay Picone <Lindsay.Picone@mississauga.ca>; Andra Maxwell <Andra.Maxwell@mississauga.ca>; Helen Noehammer <Helen.Noehammer@mississauga.ca>; Lincoln Kan <Lincoln.Kan@mississauga.ca>; Auryl Soares <Auryl.Soares@mississauga.ca>

Subject: Proceedings - Application No. EB-2019-0007 - Imperial Oil Waterdown to Finch Project

Good morning Ms. Walli,

Please find attached the City of Mississauga application to intervene in the above-noted proceedings.

Thank you,



Gladys Chan

Legal Assistant to Annie Thuan, Deputy City Solicitor – Municipal Law (Acting)

300 City Centre Drive

Mississauga, ON L5B 3C1

T 905-615-3200 ext.5409 | F 905-896-5106

Gladys.chan@mississauga.ca

[City of Mississauga](#) | City Manager's Department,

Legal Services Division

Please consider the environment before printing.

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act*, S.O. 1998, c. 15 (Schedule B), as amended;

AND IN THE MATTER OF an application by Imperial Oil Limited under section 90(1) of the *Ontario Energy Board Act* for an order granting Leave to Construct of a hydrocarbon distribution pipeline and ancillary facilities to serve the Greater Toronto and Hamilton Area.

REQUEST FOR INTERVENOR STATUS OF ENBRIDGE GAS INC.

1. Enbridge Gas Inc. ("Enbridge Gas") hereby applies for Intervenor Status in this proceeding pursuant to the above-captioned matter.
2. Enbridge Gas is an Ontario Corporation with its Registered Offices at the City of Toronto and the Municipality of Chatham-Kent, in the Province of Ontario. Enbridge Gas is a regulated public utility which combines the operations of selling, distributing, transmitting and storing natural gas within the meaning of the *Ontario Energy Board Act, 1998*.
3. Enbridge Gas holds franchise agreement and certificate of public convenience and necessity rights allowing it to provide gas services and built associated infrastructure within the City of Hamilton, the City of Burlington, the Town of Milton, the Town of Oakville, the City of Mississauga and the City of Toronto through which the proposed pipeline and associated infrastructure are to be located.
4. Enbridge Gas has a direct interest in all matters of jurisdiction, substance and procedure in the regulation of public utilities, and in any decision of this Board, which may create a precedent affecting Enbridge Gas' operations and/or rates.
5. Enbridge Gas requests one copy of the evidence and submissions of the Applicant and other participants, and any notices or correspondence. This includes any revisions or amendments which may be made prior to the commencement of or during the hearing of this Application. Enbridge Gas' preference is to receive searchable electronic versions of filings in this proceeding.
6. At this time, it is Enbridge Gas' intention to monitor the proceeding; however, after reviewing the evidence, Enbridge Gas may wish to address one or more of the issues.

7. Enbridge Gas reserves the right to adduce evidence, submit interrogatories, cross-examine witnesses, advance argument and participate in the hearing as circumstances may require.
8. Communications relating to this intervention should be directed to:

Patrick McMahon
Specialist, Regulatory Research and Records
Enbridge Gas Inc.
50 Keil Drive North
Chatham, Ontario N7M 5M1

Telephone: (519) 436-5325
Email: pmcmahon@uniongas.com
9. Enbridge Gas will not be seeking an award of costs.

DATED at the Municipality of Chatham-Kent, in the Province of Ontario this 6th day of May, 2019.

ENBRIDGE GAS INC.

[Original signed by]

Per: _____
Patrick McMahon
Specialist, Regulatory Research and Records

From: [Malone, Jessie M](#)
To: [Wiens, Joel /CS](#); [Majdalani, Elias](#); [Tourigny, Ron](#); [Thiessen, Corinne E](#)
Cc: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: EB-2019-0007 - Request for Intervenor Status
Date: Thursday, May 23, 2019 6:26:52 PM
Attachments: [ENBRIDGE_IntrvREQ_20190506.pdf](#)

fyi

From: Patrick McMahon [mailto:pmcmahon@uniongas.com]
Sent: Monday, May 6, 2019 12:20 PM
To: Malone, Jessie M <jessie.m.malone@esso.ca>; Woodhurst, Warren /C <warren.woodhurst1@esso.ca>
Subject: EB-2019-0007 - Request for Intervenor Status

FYI

The attached request for intervenor status was submitted to the Ontario Energy Board today through the Regulatory Electronic Submission System.

Pat

Patrick McMahon

Specialist, Regulatory Research and Records
ENBRIDGE GAS INC.

Tel: 519-436-5325

50 Keil Drive North, Chatham, ON N7M 5M1

enbridgegas.com

Integrity. Safety. Respect.

This email communication and any files transmitted with it may contain confidential and or proprietary information and is provided for the use of the intended recipient only. Any review, retransmission or dissemination of this information by anyone other than the intended recipient is prohibited. If you receive this email in error, please contact the sender and delete this communication and any copies immediately. Thank you.

From: Thiessen, Corinne E
To: councillor_mford@toronto.ca; Jonathan.Kent4@toronto.ca
Subject: Follow up: Waterdown to Finch Project
Date: Wednesday, May 15, 2019 11:48:46 AM

Hi Councillor Ford and Jonathan,
I hope you are doing well.

We noted that Councillor Perruzza brought motion 7.17 (seconded by Councillor Layton) to Council yesterday. It will provide City staff with authority to intervene in Imperial's Leave to Construct (LTC) application for the Waterdown to Finch Project with the Ontario Energy Board (OEB). We know that Council is set to discuss the motion today so wanted to reach out in the event you have any outstanding questions.

As noted in the memo from the City Solicitor and General Manager (Toronto Water) to City Council, Imperial submitted its LTC application to the OEB in the first quarter of 2019. The application reflects a robust environmental planning, cultural, social and heritage assessment, and engineering process.

Permitting and technical collaboration with the City of Toronto is ongoing in an effort to answer all questions and satisfy all permitting requirements. Collaboration and input from the City is important to ensure the pipeline replacement will continue to provide safe and reliable gasoline, diesel, and jet fuel for businesses and households in the Greater Toronto Area.

Please reach out if you have any questions or would like to schedule a meeting.

Thank you,

Corinne Thiessen

Stakeholder Engagement Regional Lead

Canada Fuels Operations, Imperial

E corinne.e.thiessen@esso.ca

P 587.476.3508 C 647.467.1914

imperialoil.ca | [Twitter](#) | [YouTube](#)

From: [Thiessen, Corinne E](#)
To: Robert.Trewartha@mississauga.ca; Nicole.McInerney@mississauga.ca
Cc: [D'arci McFadden](#)
Subject: Update: Waterdown to Finch Project
Date: Friday, May 17, 2019 8:26:42 AM

Hi Rob and Nicole,
Hope you are doing well.

I wanted to provide an update on the Waterdown to Finch Project and our engagement with the City of Mississauga. Last Monday, the City of Mississauga's Legal Services branch submitted a [formal letter \(notice\)](#) of intervention to the Ontario Energy Board to participate as a registered intervenor in the provincial Leave to Construct regulatory process for Imperial's Waterdown to Finch Project ([EB-2019-0007](#)). In the letter, the City indicates that the "proposed Project and related construction activities will have an impact on the local environment, City infrastructure, as well as residents and businesses."

Auryn Soares, Storm Drainage Coordinator, is the primary contact on the intervention letter. Imperial has been coordinating and providing responses to Auryn on matters related to Imperial's Environmental Report.

Permitting and technical collaboration with the City of Mississauga and Region of Peel is ongoing in an effort to answer all questions and satisfy all permitting requirements. We understand through the letter of intervention that the City is looking for more information regarding maintenance and inspection programs and emergency management measures. We plan to reach out to Teresa Burgess-Ogilvy at the Office of Emergency Management to coordinate a meeting.

Another significant Mississauga-based stakeholder, the Greater Toronto Airports Authority (GTAA), submitted a [letter of intervention](#) to support the project. The GTAA intends to support Imperial's regulatory application as required with additional evidence to substantiate the need for the Waterdown to Finch Project as well as provide an overview of the economic impact of having a reliable fuel supply to Pearson.

With the Ontario Energy Board process in motion, we could expect more media and stakeholder attention than we have to date. We will be responsive, but are mindful that your office could be asked for comment due to the City's role as an intervenor.

We will continue to provide updates as the project progresses - please let me know if you have any questions.

Thank you,

Corinne Thiessen

Stakeholder Engagement Regional Lead

Canada Fuels Operations, Imperial

E corinne.e.thiessen@esso.ca

P 587.476.3508 C 647.467.1914

imperialoil.ca | [Twitter](#) | [YouTube](#)

From: [Malone, Jessie M](#)
To: auryn.soares@mississauga.ca
Subject: Follow up: Imperial's Waterdown to Finch Project
Date: Wednesday, June 26, 2019 8:24:55 AM
Attachments: [Imperial_SPPL_ERP_General.pdf](#)
[ERP091601_SPPL Pipeline Spill Response Tactics - Peters Corners to Toron....pdf](#)

Hello Auryn,

Building on our ongoing coordination with you on the technical and permitting aspects of the [Waterdown to Finch Project](#), we are looking to engage with your emergency services / management department. We'd like to meet with Tim Beckett, Fire Chief (and other applicable staff) to discuss Imperial's Emergency Response Plan (ERP) and process for establishing construction ERPs. Attached is Imperial's current ERP, as well as site specific response plans for watercourses in your region; I will be sending two emails since the attachments are quite large. These plans will be reviewed to ensure alignment with the proposed pipeline and Imperial will connect once that process is complete.

As our primary contact, we wanted to know if you'd like to facilitate this discussion or if we are free to connect directly. Imperial plans to bring our operations, environment and emergency response leads to ensure alignment and coordination. We are looking to set up a meeting between July 9-12 or August 6-8 if possible.

Please advise on your preference for coordinating with Chief Beckett.

Regards,

Jessie Malone, P.Eng

Environmental and Regulatory Advisor

Safety Security Health and Environment, Imperial
505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194
jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491
imperialoil.ca | [Twitter](#) | [YouTube](#)

From: [Malone, Jessie M](#)
To: aurn.soares@mississauga.ca
Subject: Follow up: Imperial's Waterdown to Finch Project - email #2
Date: Wednesday, June 26, 2019 8:34:57 AM
Attachments: [ERP091604 SPPL High Water Action Plans and Pipeline Spill Response Tacti....pdf](#)
[ERP091608 SPPL Pipeline Spill Response Tactics - Cooksville Creek.pdf](#)
[ERP091603 SPPL High Water Action Plans and Pipeline Spill Response Tacti....pdf](#)

Additional ERP site-specific plans.

Jessie Malone, P.Eng

Environmental and Regulatory Advisor

Safety Security Health and Environment, Imperial
505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194
jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491
imperialoil.ca | [Twitter](#) | [YouTube](#)

From: Thiessen, Corinne E
To: rachel.godley@peelregion.ca
Cc: Malone, Jessie M
Subject: Follow up
Date: Friday, May 31, 2019 3:25:03 PM

Hi Rachel,

In follow up to our discussion and your message, below is the information regarding the Waterdown to Finch Project.

The Ontario Energy Board (OEB) administers the Leave to Construct process and is responsible for reviewing letters of intervention from interested parties and granting formal intervenor status in the application process. To become an intervenor on the Waterdown to Finch Project, the Region of Peel should send a letter to the OEB Board Secretary, Kirsten Walli, requesting intervenor status. We have included her information below and you can copy Zora Crnojacki (zora.crnojacki@oeb.ca) who is our point of contact for the project. For background, in early 2019, the Waterdown to Finch Project submitted its Leave to Construct application to the OEB, which is published under the case number **EB-2019-0007**.

Our application documents can be found on our website, here:

<https://www.imperialoil.ca/en-ca/company/operations/other-operations/imperial-sarnia-products-pipeline>

As well as on the OEB's application page here:

<http://www.rds.oeb.ca/HPECMWebDrawer/Record?q=CaseNumber%3DEB-2019-0007&sortBy=recRegisteredOn-&pageSize=400>

Imperial was directed by the OEB to issue a [Notice of Hearing](#) to all right of way (ROW) property owners, municipal/regional clerks, Indigenous communities, affected utilities, members of the Ontario Pipeline Coordinating Committee and other interested parties. This outreach took place on April 24. The Notice of Hearing also appeared in local and large-market newspaper publications in the project's ROW on April 25.

Below are the Region of Peel contacts who received the Notice of Hearing information by email on April 24 and we also distributed a package via registered mail.

- **Kathryn Lockyer**, Office of the Regional Clerk, Region of Peel
- **Christina Marzo**, Manager of Development Services, Region of Peel (our primary technical/permitting contact within the Region)

Ontario Energy Board contact information:

Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4

Attn: Ms. Kirsten Walli
Board Secretary
Tel: 1-888-632-6273 (toll free)
Fax: 416-440-7656
E-mail: Registrar@oeb.ca

Please let me know if you have any further questions.

Thank you,

From: [Malone, Jessie M](#)
To: [Marzo, Christina](#)
Subject: Follow up: Imperial's Waterdown to Finch Project
Date: Wednesday, June 26, 2019 8:34:25 AM
Attachments: [Imperial_SPPL_ERP_General.pdf](#)
[ERP091601_SPPL Pipeline Spill Response Tactics - Peters Corners to Toron....pdf](#)

Hello Christina,

Building on our ongoing coordination with you on the technical and permitting aspects of the [Waterdown to Finch Project](#), we are looking to engage with your emergency services / management department. We'd like to meet with the Region of Peel's Regional Emergency Management Program lead (and other applicable staff) to discuss Imperial's Emergency Response Plan (ERP) and process for establishing construction ERPs. Attached is Imperial's current ERP, as well as site specific response plans for watercourses in your region; I will be sending two emails as the file sizes are quite large. These plans will be reviewed to ensure alignment with the proposed pipeline and Imperial will connect once that process is complete.

As our primary contact, we wanted to know if you'd like to facilitate this discussion or if we are free to connect directly. Imperial plans to bring our operations, environment and emergency response leads to ensure alignment and coordination. We are looking to set up a meeting between July 9-12 or August 6-8 if possible.

Regards,

Jessie Malone, P.Eng

Environmental and Regulatory Advisor

Safety Security Health and Environment, Imperial
505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194
jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491
imperialoil.ca | [Twitter](#) | [YouTube](#)

From: [Malone, Jessie M](#)
To: [Marzo, Christina](#)
Subject: Follow up: Imperial's Waterdown to Finch Project - email #2
Date: Wednesday, June 26, 2019 8:42:01 AM
Attachments: [ERP091603 SPPL High Water Action Plans and Pipeline Spill Response Tacti....pdf](#)
[ERP091604 SPPL High Water Action Plans and Pipeline Spill Response Tacti....pdf](#)
[ERP091608 SPPL Pipeline Spill Response Tactics - Cooksville Creek.pdf](#)

Additional ERP site-specific plans.

Jessie Malone, P.Eng

Environmental and Regulatory Advisor

Safety Security Health and Environment, Imperial
505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194
jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491
imperialoil.ca | [Twitter](#) | [YouTube](#)

From: [Malone, Jessie M](#)
To: [Marzo, Christina](#)
Subject: Follow up: Imperial's Waterdown to Finch Project - email #2
Date: Wednesday, June 26, 2019 8:58:20 AM
Attachments: [ERP091604 SPPL High Water Action Plans and Pipeline Spill Response Tacti....pdf](#)

Additional ERP site-specific plans.

Jessie Malone, P.Eng

Environmental and Regulatory Advisor

Safety Security Health and Environment, Imperial

505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194

jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491

imperialoil.ca | [Twitter](#) | [YouTube](#)

From: [Malone, Jessie M](#)
To: [Marzo, Christina](#)
Subject: Follow up: Imperial's Waterdown to Finch Project - email #3
Date: Wednesday, June 26, 2019 9:08:48 AM
Attachments: [ERP091603 SPPL High Water Action Plans and Pipeline Spill Response Tacti....pdf](#)
[ERP091608 SPPL Pipeline Spill Response Tactics - Cooksville Creek.pdf](#)

Additional ERP site-specific plans.

Jessie Malone, P.Eng

Environmental and Regulatory Advisor

Safety Security Health and Environment, Imperial

505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1 | P1C.194

jessie.m.malone@esso.ca P 587.476.4799 | C. 403.826.5491

imperialoil.ca | [Twitter](#) | [YouTube](#)

June 5, 2019

Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON.
M4P 1E4

Attention: Ms. Christine E. Long, Registrar

Re: EB-2019-0007
Imperial Oil Limited Leave to Construct Pipeline and Associated Infrastructure
Proposed Property Impacts
201 Verobeach Blvd., Toronto, ON

Dear Ms. Long,

Pursuant to the Ontario Energy Board Procedural Order No. 1, dated May 31, 2019, and further to our request for Intervenor Status of May 3, 2019, as it relates to the above noted lands (“the **Subject Lands**”); this letter has been prepared to obtain specific information from Imperial Oil Limited (“**Imperial Oil**”).

We understand that the Subject Lands are proposed to be used as a ‘Temporary Work Base’ by Imperial Oil. Our interest in this proceeding arises from the proposed and potential impacts to the Subject Lands. **Figure 1** below, has been provided by CanACRE Ltd. on behalf of Imperial Oil as a conceptual plan indicating the proposed area of impact on the Subject Lands.

Based on **Figure 1**, the proposed impacted area appears to be approximately 28m² (300 sq. ft.). However, to date, CanAcre Ltd. has not confirmed the specific area that will be impacted.

That being said, the proposed impacted area is significant and currently supports several mature trees, landscaping and is directly adjacent the existing single detached residential dwelling on the Subject Lands. Accordingly, we hereby request the following specific information from Imperial Oil so that we can fully consider the potential impacts:

1. Detailed description of a ‘Temporary Work Base’;
2. Justification for the need to use the Subject Lands;
3. Specify the nature of activities that are anticipated to be undertaken on the Subject Lands; ie. Storage or staging of materials and if so, what type of materials, vehicular and/or equipment access and if so, what type of vehicle and equipment, etc.;
4. Project schedule that identifies the start and end dates that the Subject Lands would be impacted;

5. Hours of operation and days of the week that work is anticipated to be conducted on or adjacent to the Subject Lands;
6. Precise area (m²) of the Subject Lands that would be impacted along with a fully dimensioned plan delineating the portion of the Subject Lands impacted;
7. Confirmation of mitigation measures that would be implemented for the following anticipated impacts:
 - a. Noise & Vibration Attenuation;
 - b. Dust Control;
 - c. Construction Access/vehicular movements;
 - d. Tree Preservation Plan to identify Tree Protection and Hoarding;
 - e. Property remediation as a result of damage to landscaping, trees, etc.; and
 - f. Property value.

Figure 1.



The proposed impacts of this proposal are real and adverse and we look forward to receiving detailed information to fully understand the extent of the proposed impact to the Subject Lands.

Yours Truly,

Tim Virtanen
28 Rockcliffe Drive
Nobel, ON.
P0G 1G0
timvirtanen@gmail.com

And,

Peter Virtanen
6 Mandalane Drive
Schomberg, ON.
LOG 1T0
stayfitpaddle@gmail.com

Bell Mobility Inc.
Building D 6th Floor
5099 Creekbank Road
Mississauga, ON L4W 5N2



VIA EMAIL & COURIER – June 24/2019

Attn:

Ms. Kristen Walli - Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge St. 27th Floor
Toronto ON
M4P 1E4

RE:

EB-2019-0007 – Information Request - Approved Intervenor Bell Mobility Inc.

Ms. Kristen Walli,

In order to forecast the potential impact of the above referenced project on Bell Mobility's wireless network assets, Bell Mobility requests detailed MapInfo (TAB format) layers of the proposed installation route from Imperial Oil.

We would like to overlay this information into our existing network maps in order to highlight which Bell Mobility assets may need to be temporarily/permanently relocated to accommodate the pipeline's construction.

As the requested files are likely quite large in size, a USB flash drive or access rights to a virtual storage space are both acceptable to Bell Mobility as data communication methods.

Thank you,

A handwritten signature in blue ink, appearing to read "Rob Anderson".

Rob Anderson

Real Estate Specialist – GTA

Robert.anderson@bell.ca

T: 905-282-3548

M: 416 435-0580



From: [Tim Butters](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Water down to Finch project
Date: Tuesday, May 21, 2019 2:18:13 PM

From: [REDACTED]
Sent: Tuesday, May 21, 2019 11:50 AM
To: questions@imperialon.ca
Subject: Water down to Finch project

Could you please provide an update with regards to this project and how our property will be affected.

Regards

[REDACTED]

Sent from my iPad

From: [Thiessen, Corinne E](#)
To: TRakocevic-OP@ndp.on.ca
Cc: [Trojni, Alida](#)
Subject: Follow up: Imperial site visit
Date: Thursday, June 06, 2019 11:22:13 AM
Attachments: [image001.jpg](#)
[image002.jpg](#)
[image003.jpg](#)
[image004.jpg](#)
[image005.jpg](#)
[image006.jpg](#)
[image007.jpg](#)
[image008.jpg](#)

Dear Mr. Tom Rakocevic, MPP,

On behalf of my colleagues at Imperial, I wanted to thank you again for your interest in seeing our work site and making time to visit our Credit River Valley Project (CRVP). As discussed, the CRVP involves the replacement of a short segment of the Sarnia Products Pipeline beneath the Credit River in advance of the full Waterdown to Finch replacement initiative, and is a preventative measure to mitigate changing river flows and potential impacts on the line. Additional project information can be found on our website at imperialoil.ca/creditriver. Per our visit, I trust this helps better explain one of the key construction techniques we will be using in your constituency. Below are the photos from your visit.

We are working with your office for a drive along the planned route in your community with our right of way team to highlight what engagement is already proceeding for the Waterdown to Finch Project. As requested, I have included additional information about the Waterdown to Finch Project and our efforts to minimize impact to people and the environment. More information can be found at imperialoil.ca/waterdowntofinch.

Collaboration and Engagement with Indigenous Communities:

- Collaborating with local Indigenous groups/communities when conducting activities on their traditional territories is of paramount importance to Imperial. Imperial's Indigenous Consultation Report, which was submitted to the Ontario Pipeline Coordinating Committee to support Imperial's Leave to Construct application with the Ontario Energy Board, describes the company's approach to consultation, including how it has addressed Crown requirements, and outlines consultation activities undertaken to date and how those consultations have influenced project planning and design.
- More specifically, Imperial has provided capacity funding to support field monitors from four First Nations to participate in field surveys, including archaeology, wildlife and habitat, wetlands and waterbodies, vegetation, and fish habitat surveys.

Safety and Environmental Performance:

- Imperial is committed to keeping its neighbours and workforce safe by operating within rigorous operating protocols and all applicable regulations, as well as making investments in new technology and integrity management tools.
- Safety tools and protocols include:
 - Ongoing monitoring 24 hours a day, 365 days a year, including regular aerial and vehicle patrols along the pipeline's path.
 - Cathodic protection to safeguard the line from external corrosion.
 - Specialized tools such as SmartBalls and Smart Pigs confirm both internal and external characteristics of the pipeline to identify repairs.

Minimizing Construction Impacts:

- Our aim is to minimize construction impacts for local residents and communities along the right of way and we are preparing a robust construction communication plan to notify nearby residents in advance of any work. We have already been working closely with any directly affected landowners.
- We have also prepared a video on [Horizontal Directional Drilling \(HDD\)](#) - a trenchless method of installing underground pipe using a drilling rig at the surface level with minimal impact on the surrounding environment.
- HDD is the construction method used at the CRVP site and will be used for major roadways and watercourses for the Waterdown to Finch Project.

Direct Community Investment:

- As part of the Waterdown to Finch Project, we are overseeing a direct community investment program, which is designed to support capacity building training, education, STEM development, local community activities and environmental stewardship initiatives.
- We appreciate your feedback to date and please let us know if you are made aware of further opportunities to work with community members to support these objectives.

Photographs from CRVP site visit:



Imperial
Waterdown to Finch Project
June 6, 2019
Site Visit Summary Notes

**Please note that these notes provide a summary of the discussion; however, these are not detailed minutes of the site visit. While we have endeavored to document the main points, some discussion items may not be included.*

Participants

Toronto and Region Conservation Authority (TRCA)

- Caroline Mugo, Planner, Infrastructure Planning and Permits
- Evan Bearss, Ecologist
- Sinthujan Navaratnavel, Coordinator, Geotechnical Engineering
- Catalina Herrera

Environmental Resource Management (ERM)

- Kathy Chambers (KC), Senior Biologist
- Matt Scoular (MS), Senior Environmental Planner

Universal Pegasus International (UPI)

- Hoss Seitz (HS), Construction Manager

Imperial

- Jessie Malone (JM), Environmental and Regulatory Lead

Stantec

- Adam Hatch, Geotechnical Engineer

Site Visit Objectives

- Visit trenched (open cut) pipeline watercourse crossings in and around the Humber River Valley

Topic	Discussion
Safety Tailgate	<ul style="list-style-type: none"> • KC reviewed ERM's Job Hazard Analysis (JHA) for the site visits. Site visit crew signed JHA.
Sites Visited	<ul style="list-style-type: none"> • Access from Varo Beach Blvd: <ul style="list-style-type: none"> • Temporary workspace for pipe pullback • Access for Albion Road: <ul style="list-style-type: none"> • Temporary workspace for drill entry between WC_47.1 and WC_56 • Access from Windhill Crescent: <ul style="list-style-type: none"> • WC_49.1, WC_55 and temporary workspace for drill entry between WC_49.1 and WC-55.
Site Visit Discussion Topics	<ul style="list-style-type: none"> • Imperial gave an overview of HDD design through the Humber River valley. This included direction of each of the 4 planned drills and an overview of the laydown areas required for each. Imperial explained that one laydown area will be used for two drills: the HDD will be drilled in one direction, and then the rig will be turned around and the HDD will be drilled in the other direction. • TRCA asked about recovery pits and if they would be required during the drill in the middle of the drill path. HS responded that the design of the HDD avoids the need for recovery pits: by planning the drill entry point at the lowest elevation, any fluid would drain towards the drill entry point instead of requiring a recovery pit to be dug.

Topic	Discussion
	<ul style="list-style-type: none"> • TRCA requested to see Imperial’s mitigation plans for construction through Steep Slopes and Riparian/Floodplain for trenchless (open cut) installation through TRCA regulated areas. • Imperial stated that they could copy TRCA on Niagara Escarpment Commission (NEC) Development Permit application Steep Slope Engineering Report once submitted and that the mitigation is relevant to steep slope construction across the Project footprint. • TRCA stated that site-specific mitigation for TRCA regulated areas (watercourse and wetlands where TRCA will require a permit) will likely be needed (e.g., watercourse, riparian/floodplain, wetland, ESC measures, etc.). TRCA’s top concerns being open cut through regulated areas and workspace within regulated areas for trenchless installation (e.g., Horizontal Directional Drill, Bore). • TRCA are going to discuss the site visit internally and then would like to meet with the Project team to discuss the Ontario Regulation application filings (June and September 2019 submissions). • TRCA stated that they likely will likely require 5 permits instead of 6 permits now (they have bundled regulated areas differently). • WC_49.1, WC_55 (Emery Creek) – discussed use and extent of workspace for HDD in between WC_49.1 and WC_55 • Humber River (adjacent) – discussed use and extent of workspace between WT_31 and Emery Creek • WC_89 (Tributary to Humber River) – discussed use and extent of workspace overlapping this Class 4 watercourse. TRCA agreed that it is non-fish-bearing.
Summary of Actions	
Summary of Actions	Who
<ul style="list-style-type: none"> • Imperial to send TRCA copy of the NEC Development Permit including the Steep Slope Engineering Report once submitted. 	JM/MS
<ul style="list-style-type: none"> • TRCA to confirm the 5 bundled regulated areas for permit applications. 	CM
<ul style="list-style-type: none"> • Imperial to set-up meeting with TRCA after June filing and before September filing to discuss next steps 	JM/MS



Imperial
Waterdown to Finch Project
June 7, 2019
Site Visit Summary Notes

**Please note that these notes provide a summary of the discussion; however, these are not detailed minutes of the site visit. While we have endeavored to document the main points, some discussion items may not be included.*

Participants

- Credit Valley Conservation Authority (CVC)*
- Liam Marray, Senior Manager, Planning Ecology
 - George Golding, Engineer

- Environmental Resource Management (ERM)*
- Kathy Chambers (KC), Senior Biologist
 - Matt Scoular (MS), Senior Environmental Planner
- Universal Pegasus International (UPI)*
- Hoss Seitz (HS), Construction Manager
- Imperial*
- Jessie Malone (JM), Environmental and Regulatory Lead

Site Visit Objectives

- Visit representative trenched (open cut) and trenchless (Horizontal Directional Drill) pipeline watercourse crossings within CVC jurisdiction

Topic	Discussion
Safety Tailgate	<ul style="list-style-type: none"> • KC reviewed ERMs Job Hazard Analysis (JHA) for the site visits. Site visit crew signed JHA.
Sites Visited	<ul style="list-style-type: none"> • Access from Confederation Parkway: <ul style="list-style-type: none"> • WT_65, WT_67, WT_20, WC_33.1, WC_32.1, temporary workspace for drill entry • Access from Mississauga Road: <ul style="list-style-type: none"> • WT_12, Mullet Creek (WC_26.1) • Access from Rathkeale Road: <ul style="list-style-type: none"> • WC_168, WC_168.2, WT_16.1, WC_66, WT_16.2, WC_62
Site Visit Discussion Topics	<ul style="list-style-type: none"> • WT_20 – CVC is aligned with Project plans of open cut construction of this wetland • Terrestrial crayfish chimney’s observed at many of the sites. Noted that terrestrial crayfish habitat is Significant Wildlife Habitat under the Provincial Policy Statement (Natural Heritage System). CVC suggested that Imperial could partner with regional researchers on a terrestrial crayfish habitat (colonies) study as little is known. Imperial/ERM stated that mitigation and compensation/offsetting (if required) planning will be prioritized and primarily focused on federally and/or provincially-listed species at risk (SAR). • CVC asked whether amphibian call surveys were conducted in order to classify wetlands. ERM responded that no amphibian call surveys were conducted – amphibian surveys were focused on targeted SAR species and wetlands were classified using Ecological Land Classification methods. Survey methods were aligned with MECP expectations and protocols.

Topic	Discussion
	<ul style="list-style-type: none"> • CVC reminded ERM that CVC approved wetland and upland seed mixes (i.e., native to the watershed) are available on their website. They agreed with incorporating milkweed (and other plants critical to Monarch life cycle) into the seed mix due to Monarch likely being up-listed to the Ontario <i>Endangered Species Act</i> this year. • CVC inquired if Imperial has plans to bring in clean fill (topsoil) to reduce weeds. Imperial replied that the plan is to stockpile the existing soil and put it back on the ROW and reclaim using CA approved seed mixes depending on the existing land use (e.g., not agricultural, etc.). • WC_33.1 - CVC is aligned with open cut construction of this drainage • WC_32.1 - Based on site visit, watercourse is culverted and non-fish bearing. Imperial will look into shortening HDD by ~50-100m and using trenched installation for this crossing. • WT_12 - CVC asked if Imperial can avoid temporary workspace impacts to wetland. Imperial stated that they will review with Engineering, but stated that there are many constraints in this area (e.g., other pipelines, HONI infrastructure setbacks). There may be opportunity to field fit around wetland at time of construction. • WC_26.1, WC_26.2 (Mullet Creek crossings) - CVC is aligned with HDD of this watercourse. Noted historical presence of American eel • UPI explained approach for open cut at the West side of the Credit River tie-in; no grading will be completed outside of the ditch. Soil will be stockpiled on top of existing pipelines (North), while equipment will be staged on the other side of the trench (South). Steep Slopes Plan is being developed to support the Niagara Escarpment Commission Development Permit and general mitigations outlined in this plan will be implemented at the Credit River location. Credit River Project existing workspace will be re-used. CVC noted that they will need to see Geotechnical information (and potentially slope stability study from a Geotechnical Engineer) for open cut of the Credit River regulated valley slope. CVC stated that they will also require site-specific ESC plan. • WC_168, WC_168.2 - CVC is aligned with open cut construction at both drainage crossings, however, Erosion and Sediment Control measures required • WT_16.1 - CVC is aligned with open cut construction of this wetland • WC_66, WT_16.2 - WC_66 was determine in the field by KC not to be a watercourse. CVC is aligned with open cut construction of this wetland • WT_16.1 - CVC is aligned with open cut construction of this wetland • WC_62 - KC confirmed in field to be non fish bearing. CVC will require rationale for open cut. • CVC will look into depth of cover recommendations; noted that their guidance says 2 m depth of cover for open cut of larger watercourses (for pressurized pipelines). Imperial explained they completed conservative (to include safety factor) Geomorphology study for representative watercourses to address potential channel migration/scour/bank erosion issues. Imperial is currently planning to meet CSA Z662 standard of minimum 1.2m depth of cover. • CVC stated that municipalities and the Region will have drainage and stormwater management (SWM) pond data but Imperial may not be able to access GIS data

Imperial
Waterdown to Finch Pipeline Project

Site Visit Summary Notes

Topic	Discussion	
	<ul style="list-style-type: none"> Imperial to submit CVC O. Reg. application within the next few weeks and can set up a meeting to follow up on staggered submission (content of Sept submission) Imperial to coordinate a site visit to the Credit River tie-in for Waterdown to Finch Project once Credit River Project complete. 	
Summary of Actions	Who	
<ul style="list-style-type: none"> CVC to send terrestrial crayfish researcher contacts 	LM <i>(received, thank you)</i>	
<ul style="list-style-type: none"> Imperial to provide CVC with Geotechnical Program results once available 	JM	
<ul style="list-style-type: none"> Imperial to set-up site visit with CVC to view Credit River tie-in construction plans and workspace 	JM/MS	
<ul style="list-style-type: none"> Imperial to set-up meeting with CVC after June filing and before September filing 	JM/MS	

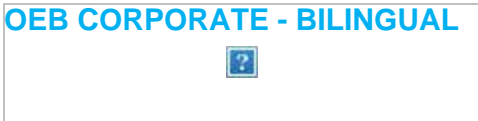
From: [Batul Rahimtoola](#)
To: [Malone, Jessie M](#); [Laing, Ian R](#); "[regulatory@hydroone.com](#)"; "[robert.anderson@bell.ca](#)"; "[alex.greco@cme-mec.ca](#)"; "[mathew.wilson@cme-mec.ca](#)"; "[Atul.Sharma@gtaa.com](#)"; "[pmcmahon@uniongas.com](#)"; "[nicholas.rolfe@toronto.ca](#)"; "[john.kelly@toronto.ca](#)"; "[auryrn.soares@mississauga.ca](#)"; "[patrick.murphy@mississauga.ca](#)"; "[stayfitpaddle@gmail.com](#)"; "[timvirtanen10@gmail.com](#)"; "[Justyna.Hidalgo@hamilton.ca](#)"; "[guy.paparella@hamilton.ca](#)"; "[kfrankl@toronto.ca](#)"; "[tony.oliveri@halton.ca](#)"; "[meredith.baker@halton.ca](#)"; "[rachel.godley@peelregion.ca](#)"
Subject: Procedural Order No. 2 - Imperial Oil Limited - OEB File No. EB-2019-0007
Date: Monday, June 10, 2019 2:14:15 PM
Attachments: [image003.png](#)
[image007.jpg](#)
[image008.jpg](#)
[image009.png](#)
[oledata.mso](#)
[PO2_Imperial LTC_20190610.pdf](#)

Dear Ms. Malone:

The OEB has today issued its Procedural Order No. 2 for the above mentioned proceeding. Please see attached.

Thank you.

Batul Rahimtoola, Senior Case Administrator, Applications Administration, Registrar's Office
 2300 Yonge Street, 27th Floor, Toronto ON M4P 1E4 | ☎ 416-440-7635 | [OEB.ca](#)



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From: [Matthew Scoular](#)
To: [Murray, Liam](#)
Cc: [Kathy Chambers](#)
Subject: RE: Fish Habitat
Date: Wednesday, June 12, 2019 8:03:20 AM

From: Matthew Scoular
Sent: Tuesday, June 11, 2019 4:31 PM
To: Murray, Liam <Liam.Murray@cvc.ca>
Cc: Kathy Chambers (Kathy.Chambers@erm.com) <Kathy.Chambers@erm.com>
Subject: RE: Fish Habitat
Importance: High

Hi Liam,

Further to my voicemail, ERM requested fish-bearing status data from MNR (Guelph and Aurora Districts) and the 4 CAs and we based our fish-bearing status on the data we received and a fish habitat/barrier assessment at the crossing location (where we could obtain land access).

Attached is what CVC provided us (i.e., Mullet and Sawmill Creek data). If you have fish data for any of the other watercourses/wetlands within CVC jurisdiction that Imperial's Waterdown to Finch Project crosses we would appreciate reviewing it!

Feel free to give Kathy or I a call to discuss further.

Kathy's phone: 604-689-9460

Matt

Best,

Matt Scoular

ERM
M +1 416 567 7126

From: Murray, Liam <Liam.Murray@cvc.ca>
Sent: Tuesday, June 11, 2019 12:32 PM
To: Matthew Scoular <Matthew.Scoular@erm.com>
Subject: Fish Habitat

Matt – just assessing your fish bearing watercourses and note that many of your crossings are classified as fish bearing compared to our present analysis and the data that we previously provided.

Can you please clarify.

Thanks

Liam

Liam Marray

Senior Manager, Planning Ecology | Credit Valley Conservation
905.670.1615 ext 239 | C: 416.896.1064 | 1.800.668.5557
liam.marray@cvc.ca | cvc.ca

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Imperial
Waterdown to Finch Project
June 14, 2019
Site Visit Summary Notes

**Please note that these notes provide a summary of the discussion; however, these are not detailed minutes of the site visit. While we have endeavored to document the main points, some discussion items may not be included.*

<p>Participants</p> <p><i>Conservation Hamilton (CH)</i></p> <ul style="list-style-type: none"> • Charles Priddle (CP), Coordinator, Regulations Program • Lesley Matich (LM), Coordinator, Planning Ecology • Jacek Strakowski (JS), Hydrogeologist • Janette Brenner (JB), Coordinator, Water Resources Engineering 	<p><i>Environmental Resource Management (ERM)</i></p> <ul style="list-style-type: none"> • Kathy Chambers (KC), Senior Biologist • Matt Scoular (MS), Senior Environmental Planner • Nicole Bishop (NB), Project Manager <p><i>Universal Pegasus International (UPI)</i></p> <ul style="list-style-type: none"> • Hoss Seitz (HS), Construction Manager <p><i>Imperial</i></p> <ul style="list-style-type: none"> • Jessie Malone (JM), Environmental and Regulatory Lead
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Site Visit Objectives

- Visit representative trenched (open cut) and trenchless (Horizontal Directional Drill) pipeline watercourse crossings within Conservation Halton (CH) jurisdiction

Topic	Discussion
Safety Tailgate	<ul style="list-style-type: none"> • KC reviewed ERMs Job Hazard Analysis (JHA) for the site visits. Site visit crew signed JHA.
Sites Visited	<p>Site 2 (WTFN1004 & WTFN1008)</p> <ul style="list-style-type: none"> • WC_8.1, WC_76, WT_40, WC_99, WC_100, WC_9.1 <p>Site 4 (WTFN0041)</p> <ul style="list-style-type: none"> • WT_33, WC_6.1 <p>Site 5 (WTFN2007)</p> <ul style="list-style-type: none"> • WC_19.1, WC_20.1, WC_58
Site Visit Discussion Topics	<ul style="list-style-type: none"> • CH expressed interest in visiting WC_71 & WC_68 because of their location on the escarpment. Due to access permissions, these areas were not available for a site visit, however, Imperial indicated that targeted field surveys were planned for that area in July. CH expressed interest in joining to observe these locations, Imperial will follow up to determine if access permission can be obtained. • HS stated that open cut minimum depth of cover is 1.2 m • CH stated they expect a 1.8-2m depth of cover at watercourse crossings. JM confirmed that WC_8.1 is the only Class 2 watercourse that is planned for open cut. The depth of this crossing is planned to be 2m. • CH inquired about access crossings and what they look like. HS explained that vehicle access crossings will be clear span where feasible and matting will be used in riparian areas.

Topic	Discussion
	<ul style="list-style-type: none"> • CH asked how long it would take to install the pipeline watercourse crossings. HS explained that the construction duration for each crossing will vary, however he estimates a 4 day construction period for WC_9.1. JM added that the Water Taking Permit estimated that no more than 2 km of open trench will be open at one time over a two-week period. • CH inquired if the pipeline was being built west to east. JM confirmed that the construction sequencing has not yet been determined. The construction contractor will have to determine this sequence while taking into consideration RAPs and other construction constraints. • Imperial confirmed that WT_40 is open cut. MS confirmed that wetland characterization was based on Ecological Land Classification methods. • Imperial confirmed that WC_8.1 and WC_9.1 will be open cut. HS confirmed that only the ditch line will be disturbed. MS confirmed that topsoil and subsoil will be separated and stockpiled outside of the riparian area, where feasible. • MS stated that Steep Slopes Engineering Report is being prepared for NEC Development Permit application and mitigation is applicable to other steep slopes outside of NEC jurisdiction. • CH want rationale for why open cut was chosen as crossing method for WC_9.1. They also want to see ESC, slope stability, Adverse Weather/Wet Soils Contingency Plan, and Reclamation Plan for this site. CH stated that Reclamation Plan should discuss spring and fall plan implementation if construction/reclamation time is unknown. • CH inquired if material was placed underneath the pipe for installation. HS confirmed that depending on the area, either granular material or native material will be placed underneath the pipe. • HS confirmed that clay plugs or sandbags are used along the pipe installation to prevent channelling. • CH highlighted that the key to WC_9.1 will be proper restoration. • CH advised that their approved seed mix is on their website (i.e., Ontario Seed Company) • CH stated that they do not want to see non-biodegradable material used as slope stabilization material (i.e., HDPE/plastic). MS stated that biodegradable matting/logs in conjunction with seeding/vegetation planting would be used. CH confirmed that they require redundancy to address slope stability, re-seeding only would not be satisfactory. • CH stated that they thought not all PSWs within their jurisdiction were HDD, per the mapping previously provided by Imperial. Specifically, the North Oakville wetland complex (WT_38). UPDATE: Savanta can confirm that all MNRF mapped PSWs s will be crossed using trenchless methods. It is recognized that unmapped wetlands within the study area may be complexed into existing PSWs, and these locations are noted as “assumed PSWs” in the CA applications. Due to technical aspects of construction, not all assumed PSWs are proposed for HDD. • HS and MS explained the use of matting for wetlands to avoid compaction and rutting • Fish observed at site WC_6.1 / WT_33. ERM to change watercourse classification from Class 4 to Class 3.

Imperial
Waterdown to Finch Pipeline Project

Site Visit Summary Notes

Topic	Discussion
	<ul style="list-style-type: none"> • CH stated that they are aligned with trenched installation of WC_20.1 and WC_19.1 • Imperial/UPI are planning to start construction in December 2019; construction is planned for approximately 8-10 months. • CH inquired about how open cut construction is conducted on a wetland (non-PSW, regulated). HS explained that matting will be installed for ease of construction and will be left in place until the final clean up (approximately 6 months). • CH expressed interest in proposed construction method in canyon near Lake Medad. Imperial confirmed that this area is being drilled. JM indicated that the CH permit application will indicate where the HDD will begin, however, the Project is currently reviewing extending the HDD entry even further west. • CH inquired whether the Project would require removal of trees within Jefferson salamander regulated habitat. Imperial confirmed that vegetation control will be maintained on the ROW and minimal vegetation removal (5-10m) may be required along the length of the ROW in certain areas.
Summary of Actions	Who
<ul style="list-style-type: none"> • Lesley to e-mail ERM and Savanta to confirm which wetlands they assume are PSWs 	LM (<i>received, thank you. We are reviewing.</i>)
<ul style="list-style-type: none"> • Lesley to see if CH has further information available regarding fish-bearing status of pipeline and access road watercourse crossings 	LM (<i>received, thank-you.</i>)
<ul style="list-style-type: none"> • Imperial/ERM to invite CH to planned July 2019 Debruin property environmental surveys 	JM
<ul style="list-style-type: none"> • Charles to provide CH staff names and titles that are to attend environmental surveys for property access permission 	CP
<ul style="list-style-type: none"> • ERM to change watercourse classification of WC_6.1 from Class 4 to Class 3 	KC

From: [Matthew Scoular](#)
To: [Murray, Liam](#); [Golding, George](#); [James, Eric](#)
Cc: [Malone, Jessie M](#); [Seitz, Hoss](#); [James Watson](#); [Curtis Campbell](#)
Subject: RE: Imperial WFP - Site Visit
Date: Wednesday, June 26, 2019 9:05:07 AM
Attachments: [image001.png](#)
Importance: High

From: Marray, Liam <Liam.Marray@cvc.ca>
Sent: Monday, June 24, 2019 8:13 AM
To: Matthew Scoular <Matthew.Scoular@erm.com>; Golding, George <George.Golding@cvc.ca>; James, Eric <Eric.James@cvc.ca>
Cc: Malone, Jessie M <Jessie.m.malone@esso.ca>; Kathy Chambers <Kathy.Chambers@erm.com>; Seitz, Hoss <Hoss.Seitz@hii-upi.com>
Subject: RE: Imperial WFP - Site Visit

SMatthew

Please find attached some additional comments with respect to your meeting notes.

Topic – Wetlands

As previously discussed, CVC's preference and practice would be to use trenchless technologies for all wetland crossings. CVC recognizes that Imperial is not proposing trenchless techniques for all wetlands and for the wetlands that we visited, CVC had no objection to the proposed open cuts. However as part of your submission, Imperial should provide rationale why trenchless technologies is not being used for each wetland. Some rationale that could be considered.

Ecological Rationale Criteria for Not Requiring HDD

Size < 0.5 ha

Soils are mineral

No indications of groundwater

Dominant species – non native

Not connected to a regulated watercourse

Not connected to drainage feature that feeds watercourse

Not fish habitat or connected to fish habitat

No significant function including Significant Wildlife Habitat (Please review Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E, MNRF, January 2015 and Peel-Caledon Significant Woodlands and Significant Wildlife Habitat Study, June 2009)

No Rare species

NO Woody Vegetation (i.e. community is not a swamp or swamp thicket)

Non Ecological Rationale can also be provided

Please Note:

In areas where trenchless technology is used there should be no crossing of watercourses or wetlands by vehicles or machinery.

In areas where open cut is used the work areas within the wetland should be minimized, there should be no staging areas or other expansion of the work area within the wetland. The protection of the wetland should be identified on the plans (e.g. swamp mats, silt fences)

Topic – Open Cut within the Credit River valley slope:

A site visit will need to be arranged with appropriate CVC staff.

- As discussed during the site walk, CVC's preference would be that Imperial avoids the proposed open cut within the valley slope (Credit River valley slope directly east of Mississauga Road) and install the new pipeline connect via HDD. If other factors limit HDD, please provide justification for the open cut.
- If an open cut is the only feasible option, CVC will require a slope stability assessment (from a qualified geotechnical engineer) to evaluate the overall slope stability and provide design recommendations on the open cut within the valley slope as well as slope restoration details following active construction. Further consultation should be completed once additional information is provided.
 - Please review with the following link: <https://cvc.ca/wp-content/uploads/2012/02/Slope-Stability-Determination-Guidelines.pdf>

Topic – Minimum Depth of Covers:

- CVC staff stated that our typical minimum depth of cover is 2 m for smaller regulated watercourses. If 2 m of cover cannot be achieved then a scour analysis will be required. For non-regulated drainage features, the depth of cover should be determined by qualified professionals
 - please review the attached **draft** document regarding watercourse scour.
 - Please note that at this location Cooksville Creek is not considered a smaller watercourse. Depending on the proposed depth of cover a scour analysis may be required

As discussed onsite, given the limited details provided during the site walk, further pre-consultation with the CVC may be required prior to a formal submission.

Please do not hesitate to contact the undersigned if you have any additional questions.

Yours truly,

Liam

Liam Marray

Senior Manager, Planning Ecology | Credit Valley Conservation
905.670.1615 ext 239 | C: 416.896.1064 | 1.800.668.5557
liam.marray@cvc.ca | cvc.ca



Imperial
Waterdown to Finch Project
June 24, 2019
Meeting Summary Notes

**Please note that these notes provide a summary of the discussion; however, these are not detailed minutes of the site visit. While we have endeavored to document the main points, some discussion items may not be included.*

Participants

Niagara Escarpment Commission

- Kim Peters (KP), Senior Strategic Advisor

Environmental Resource Management (ERM)

- Matt Scoular (MS), Senior Environmental Planner

Imperial

- Jessie Malone (JM), Environmental and Regulatory Lead

Meeting Objectives

- Provide the NEC with an update on Project planning and Development Permit application
- Discuss Kim’s email related to Imperial’s application and understand that NECs expectations are aligned with Imperial’s application content/other planned regulatory applications

Topic	Discussion
Discussion Topics	<ul style="list-style-type: none"> • KP reiterated that she is not expecting policy issues related to Imperial’s Waterdown to Finch Project (Project) and no amendment to the Niagara Escarpment land use plan is needed • KP confirmed that the Project will require a Development Permit application and that technical studies will be required to demonstrate that the Project meets the policies in the Niagara Escarpment Plan • KP stated that NEC will want to review the Project’s Geotechnical program results and the Hydrogeological study to assess potential effects on aquifers within NECs jurisdiction • KP stated that Union Gas had to revert to open cut through the escarpment as HDD was assessed to have potential impacts on aquifers. • JM stated that Imperial will file a June submission (i.e., Development Permit application, Development Permit application report, Draft Erosion and Sediment Control Plan, Steep Slopes Engineering Report) and can provide supplemental information when available (e.g., Environmental Protection Plan, Geotechnical results) • KP stated that it is better for Imperial to submit what they have now for NEC to start their concordance review and submit supplemental documentation once available • KP stated that NEC relies on the Conservation Authorities for technical review of Hydrogeology and Geotechnical results. However, NEC would like to be copied on CA permit applications and technical studies to ensure NEP policies are met. • KP stated that Imperial should confirm that their application addresses the Niagara Escarpment Plan’s water resources policies

Topic	Discussion
	<ul style="list-style-type: none"> • JM stated that Imperial can copy the NEC on their Water Taking Permit application associated technical studies • JM stated that Imperial can share a copy of the Stage 1 Archaeology Report. Stage 2 archaeology field work is ongoing, but the final report can be shared once complete. • MS stated that Imperial can provide the results of the arborist tree inventory and tree preservation and compensation plan produced for the municipal tree removal/damage permit applications • KP stated that the NEC doesn't have tree removal compensation policies. However, a condition of approval may be for Imperial to commit to re-planting trees removed within the NEC's plan area and monitoring the success of the planting program within NECs jurisdiction for 5-years post-construction. • JM confirmed that the planned easement from Waterdown to Oakville will be largely on Imperial's existing ROW that currently undergoes vegetation control. Additional workspace required for construction will be temporary and revegetation can occur in the same area. There will be minimal areas where permanent tree removal (and thus compensation) will be required. • KP stated that where Imperial's ROW is outside of their existing easement, NEC will require landowner consent/signatures within NECs jurisdiction. JM stated that their land service consultant, Canacres, is currently undergoing land negotiations and that once agreements are in place, these will be provided to the CAs and NEC. JM clarified that these consents would not be available until closer to construction and requested the NEC consider making this a condition of approval (similar to CA requirements). • KP confirmed that a Development Permit application or a land use amendment application can both trigger a hearing if a landowner appeals the NECs decision • KP confirmed the process steps if an appeal is filed: <ul style="list-style-type: none"> ○ NEC issues notice of decision ○ NEC notifies landowners within 120m of the Project ○ Landowners have 14 days to appeal the NECs decision ○ If there is appeal, NEC will call a meeting with Imperial and the landowner to try and resolve the issues/concerns in an attempt to avoid a hearing ○ If hearing is required, the timeline is 3-6 months • KP stated that Imperial can object if the appellant has not provided a sufficient planning rationale for the appeal. The Niagara Escarpment Hearing Office may also hold pre-hearing conferences to try to resolve an appeal before there is a formal hearing. • KP stated that municipalities and provincial agencies hardly ever appeal NECs decision; NEC works collaboratively with them. However, if they are opposed to the Project, NEC would deny the Project a Development Permit • KP recommended that Imperial engage organized Environmental Non-government organizations (i.e., PERL and Cone (Coalition on the Niagara Escarpment)). KP committed to sending Imperial Cone's contact information (i.e., Bob Patrick)

Imperial
Waterdown to Finch Pipeline Project

Site Visit Summary Notes

Topic	Discussion	
	<ul style="list-style-type: none"> • KP also stated that she could send Union Gas' Development Permit for construction of a pipeline through the Niagara Escarpment including their construction plan and restoration plan 	
Summary of Actions		Who
<ul style="list-style-type: none"> • Send Imperial CONE's contact information (i.e., Bob Patrick) 	KP - complete	
<ul style="list-style-type: none"> • Send Union Gas' Development Permit including their construction plan and restoration plan 	KP - complete	
<ul style="list-style-type: none"> • Copy NEC on other provincial and municipal applications (i.e., MECP, CAs, MTCS, tree removal/damage). 	JM	

From: [Tim Butters](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: Meeting with Bryne Emeneau
Date: Tuesday, July 09, 2019 8:02:11 AM

From: Bryne Emeneau <bemeneau@sympatico.ca>
Sent: Wednesday, June 26, 2019 9:21 AM
To: Imperial in Ontario <questions@imperialon.ca>
Cc: Thiessen, Corinne E <corinne.e.thiessen@esso.ca>; kmanouchehri@tssa.org
Subject: Re: Imperial Oil Replacement of Waterdown to Finch SPP section, Re: Ref your last email: Please send again

Hi Tim:

Thanks for your reply today. I'll take you up on the offer of a meeting with your project team; I'm interested to learn more about the project and Imperial Oil. What time and place do you suggest?

Thanks,
Bryne Emeneau
289-795-2635

On Jun 26, 2019, at 7:51 AM, Imperial in Ontario <questions@imperialon.ca> wrote:

Hello Bryne,

Thank you again for your follow-up questions and continued interest in the Waterdown to Finch Project.

Imperial's Waterdown to Finch pipeline segment has operated safely since the 1950s with no pipeline failures resulting in spills. The company has strong history and culture of continuous improvement that applies to all of its assets. To further enhance safety and environmental protection, Imperial continues to identify and implement improvements to both its assets and operating practices to reflect global industry learnings and the latest advancements in safety and detection technologies.

Imperial employs a wide-range of practices including:

- Remote 24/7 monitoring with satellite control
- Automated leak detection and shutdown capability
- Use of advanced in-line inspection tools and Non-Destructive Testing (NDT) techniques
- Robust Hydrocarbon Control Practices (HCP) including reconciliation of volume along multiple points of the pipeline
- Pressure Relief Devices to prevent over-pressurization
- Regular air and ground patrols
- Horizontal Directional Drilling (HDD) technology

Imperial is committed to ongoing information sharing of best practices with respect to environmental protection and emergency response with regulators and other pipeline operators through joint industry committees.

The Waterdown to Finch replacement project will feature further enhancements, such as modern pipe manufacturing techniques, high-performance protective coating and use of HDD to bury the pipeline significantly deeper in sensitive areas, such as highways and watercourses.

Our focus is on keeping our neighbours and workforce safe through rigorous operating protocols and meeting or exceeding all applicable regulations, as well as making investments in new technology and integrity management tools.

Again, we are open to coordinating a meeting with our project team to answer any remaining questions.

Thank you again for your questions.

Regards,

Tim Butters
Director, Corporate Affairs

From: Imperial in Ontario <questions@imperialon.ca>

Sent: Friday, May 10, 2019 2:37 PM

To: 'Bryne Emeneau' <bemeneau@sympatico.ca>

Subject: RE: Imperial Oil Replacement of Waterdown to Finch SPP section, Re: Ref your last email: Please send again

Hello, Bryne –

Thank you for your email and continued interest in the Waterdown to Finch Project.

I wanted to acknowledge receipt of your email and let you know that I am working with our Project's subject matter experts to provide responses to your specific questions and considerations.

Thank you again and have a great weekend.

Regards,

Tim Butters
Director, Corporate Affairs

From: Bryne Emeneau <bemeneau@sympatico.ca>

Sent: Tuesday, May 7, 2019 3:10 PM

To: Imperial in Ontario <questions@imperialon.ca>

Cc: Kouros Manouchehri <kmanouchehri@tssa.org>

Subject: Imperial Oil Replacement of Waterdown to Finch SPP section, Re: Ref your last email: Please send again

Hi Tim:

From: [Malone, Jessie M](#)
To: [Projectmail - Wood E&I Calgary - Consultation](#)
Subject: FW: Imperial's WFP - NEC Meeting
Date: Tuesday, July 02, 2019 5:00:59 PM
Attachments: [image001.png](#)
[A1. Imperial WFP NEC Mtg Notes June 24 2019 to NEC KPcomments.pdf](#)

From: Peters, Kim (MNRF) [<mailto:Kim.Peters@ontario.ca>]
Sent: Thursday, June 27, 2019 11:00 AM
To: Matthew Scoular <Matthew.Scoular@erm.com>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: RE: Imperial's WFP - NEC Meeting

Hi Matthew and Jessie,

A few minor clarifications to the meeting notes.

I will send the Union Gas example under separate cover (large file transfer).

CONE's website: <https://www.niagaraescarpment.org/>

Thanks,

Kim

From: Matthew Scoular <Matthew.Scoular@erm.com>
Sent: June 26, 2019 8:42 AM
To: Peters, Kim (MNRF) <Kim.Peters@ontario.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; James Watson <james.watson@hii-upi.com>;
Nicole Bishop <Nicole.Bishop@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>;
Consultation.calgary@woodplc.com
Subject: Imperial's WFP - NEC Meeting
Importance: High

Hi Kim,

Meeting notes and related actions attached for your review. Please let us know if you have any revisions to the notes.

Thank-you!

Matt

Best Regards,

Matt Scoular, M.E.S., MCIP, RPP



Bell Mobility Inc.
5099 Creekbank Rd.
Building D, Floor 6
Mississauga, ON L4W 5N2

File 2019-08-02
EB-2019-0007
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VIA COURIER

May 3/2019

Ontario Energy Board
P.O Box 2319
2300 Yonge Street, 27th Floor
Toronto ON
M4P 1E4

ATTN: Ms. Kirsten Walli, Board Secretary

RE: EB-2019-0007, Leave to Construct – Waterdown to Finch Project

Please be advised –

Pursuant to the Ontario Energy Board Notice Bell Mobility Inc. would like to identify an interest in this project and is formally requesting to become an intervenor.

This request comes in response to our desire to identify and mitigate any potential impact construction of the pipeline may have on our wireless network assets along the proposed corridor.

Thank you for your consideration.

Sincerely,

Rob Anderson
Bell Mobility-Senior Real Estate Advisor – GTA East
T : 905-282-3548
M: 416-435-0580
Robert.anderson@bell.ca

From: Thiessen, Corinne E
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Imperial Waterdown to Finch Project: Environmental Report
Date: Tuesday, July 23, 2019 9:57:16 PM

From: John Kelly [<mailto:John.Kelly@toronto.ca>]
Sent: Monday, May 13, 2019 12:20 PM
To: Thiessen, Corinne E <corinne.e.thiessen@esso.ca>
Subject: RE: Imperial Waterdown to Finch Project: Environmental Report

Hi Corinne,

Sorry I couldn't respond last week.

I'm hoping you can provide me some information on what resources, including insurance coverage, Imperial has available to respond to and address any impacts in the event of a spill from the new pipeline.

Perhaps this is something that could be handled through an e-mail – but I do have some time today if you'd like to discuss by phone.

Thanks

John P. Kelly, P.Eng.

Director
Engineering Review
Engineering & Construction Services
City of Toronto
Metro Hall, 16th Floor
55 John Street
Toronto, Ontario M5V 3C6
P: 416-392-0455
F: 416-392-4426
E: john.kelly@toronto.ca
<image001.png>

From: Thiessen, Corinne E [<mailto:corinne.e.thiessen@esso.ca>]
Sent: May-10-19 9:56 AM
To: John Kelly <John.Kelly@toronto.ca>
Subject: RE: Imperial Waterdown to Finch Project: Environmental Report

Hi John,

Are you available today for a call? If you are able to give me an idea of your questions, I will be sure to pull the information in advance.

May 6, 2019

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board (OEB)
Suite 2700, 2300 Yonge Street
P.O. Box 2319
Toronto, Ontario M4P 1E4

Submitted via e-mail and courier

Dear Ms. Walli:

Re: EB-2019-0007 – Imperial Oil Limited Leave to Construct Pipeline and Associated Infrastructure in the City of Hamilton to the City of Toronto: Canadian Manufacturers & Exporters (CME) Intervention

In response to the Ontario Energy Board's Notice of Application dated April 11, 2019, Canadian Manufacturers & Exporters (CME) hereby gives notice of its intention to intervene in the above noted proceeding. CME intends to participate in the proceeding as necessary to determine issues, clarify or test evidence through interrogatories, and, if required, provide submissions and/or argument on issues pertinent to its interests.

Manufacturing is the most critical business sector in Ontario. It directly accounts for over 12 per cent of GDP and 80 per cent of exports. Through their extensive operations, manufacturers generate significant economic spinoffs throughout the economy and Ontario's communities, including in natural resources, technology, and every service sector from banking to logistics. Factoring in these economic spin-offs, manufacturers drive nearly 30 per cent of all economic activity, 25 per cent of all jobs, and one-third of all government revenues.

Specifically, CME's interest in this proceeding arises from the reliability of the broad benefits that this project will have for Canadian manufacturers by ensuring the reliable supply of high-quality fuel products to help meet operation demands – and keep Ontario's economy moving.

CME is a major stakeholder in the Ontario energy sector and is proud to have a long-standing professional relationship with Imperial that spans over 100 years, and we can attest to the important role that Imperial plays in Ontario and Canada. As indicated in the province's Fuels Technical Report, 2016, fuels are an



CANADIAN
MANUFACTURERS
& EXPORTERS



MANUFACTURIERS
& EXPORTATEURS
DU CANADA

important component of our provincial economy, critical for households, businesses and industry. Thus, CME has significant interest in the issues raised in RE: EB-2019-0007.

CME is satisfied if the Board conducts the review of this Application using a written hearing process. CME intends to seek an award of costs as per the Board's Cost Award Guidelines.

CME requests that documents filed with the Board in this proceeding be served as follows:

Intervenors:

Mathew Wilson,
Senior Vice-President, Policy and Government Relations
Canadian Manufacturers & Exporters (CME)

Alex Greco
Director, Policy and Government Relations
Canadian Manufacturers & Exporters (CME)

Mailing Address:

55 Standish Court, Suite 620
Mississauga, Ontario
L5R 4B2
Phone:(647)-455-2197
Fax: (905) 672-1764
Alex.greco@cme-mec.ca

Sincerely,

Alex Greco
Director, Policy and Government Relations
Canadian Manufacturers & Exporters (CME)

Cc Jessie Malone, Imperial Oil Limited
Warren Woodhurst, Imperial Oil Limited



May 6, 2019
Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4

E-mail: Registrar@oeb.ca

Re: Imperial OEB Application file – EB-2019-0007

**Greater Toronto
Airports Authority**

P.O. Box 6031
3111 Convaire Drive
Toronto AMF, Ontario
Canada L5P 1B2

P 416.776.3000
F 416.776.7746

GTAA.com

Dear Ms. Walli,

Please accept this letter as our interest in becoming an intervenor on Imperial's Waterdown to Finch pipeline replacement project.

The Greater Toronto Airports Authority (GTAA) operates and maintains Toronto Pearson International Airport (Toronto Pearson). In 2018, we welcomed nearly 50 million passengers to Toronto Pearson. In 2019 our expectation is that more than 50 million passengers will pass through Toronto Pearson. We have grown at a rate of 2 to 3 million passengers per year for the past several years. Nearly 50,000 people work at Toronto Pearson daily and according to Frontier Economics Toronto Pearson facilitates approximately 300,000 jobs across Ontario. Toronto Pearson is home to the second largest employment zone in Canada with the first being downtown Toronto.

The availability of reliable aviation fuel for carriers is critical to the operation of Toronto Pearson. In recent years, we have expanded our jet fuel infrastructure to accommodate growth. A limitation or interruption of aviation fuel supplies would have an immediate and serious operational and financial impact on airport operations, our passengers and on the Ontario economy.

To mitigate against potential power outages, we have built an on-site co-generation plant to ensure reliable power is always available. As we do not have the same capacity for jet fuel, Imperial's Sarnia Products Pipeline and the Waterdown to Finch Project are central to ensuring continued energy and fuel reliability and capacity for Toronto Pearson.

GTAA intends to support Imperial's regulatory application with additional evidence to substantiate the need for the Waterdown to Finch Project as well as provide an overview of the economic impact of having a reliable supply of fuel to support Toronto Pearson.

We would also support a Board decision to conduct the review of this Application using a written hearing process.



Sincerely yours,

A handwritten signature in purple ink, appearing to read 'Atul Sharma', with a stylized, cursive script.

Atul Sharma
Manager, Government and Stakeholder Relations

Hydro One Networks Inc.
7th Floor, South Tower
483 Bay Street
Toronto, Ontario M5G 2P5
www.HydroOne.com

Tel: (416) 345-5393
Fax: (416) 345-6833
Joanne.Richardson@HydroOne.com



Joanne Richardson
Director – Major Projects and Partnerships
Regulatory Affairs

BY COURIER

April 15, 2019

Ms. Kirsten Walli
Secretary
Ontario Energy Board
Suite 2700, 2300 Yonge Street
P.O. Box 2319
Toronto, ON.
M4P 1E4

Dear Ms. Walli:

Re: EB-2019-0007 – Imperial Oil Limited Leave to Construct Pipeline and Associated Infrastructure in the City of Hamilton to the City of Toronto: Hydro One Networks Intervention

In response to the Ontario Energy Board's Notice of Application dated April 11, 2019, Hydro One Networks Inc. ("Hydro One") hereby gives notice of its intention to intervene in the above-noted proceeding. Hydro One intends to participate in the proceeding as necessary to determine issues, clarify or test evidence through interrogatories, and, if required, provide submissions and/or argument on issues pertinent to its interests. Specifically, Hydro One's interest in this proceeding arises from the potential impact of the new pipeline on existing Hydro One transmission and distribution lines.

Hydro One is a subsidiary of Hydro One Inc. and operates extensive electricity transmission and distribution facilities throughout Ontario. Hydro One is a major stakeholder in the Ontario energy sector and a regulated Ontario electricity distributor and transmitter. Hydro One Networks has significant interest in the issues raised in RE: EB-2019-0007.

Hydro One is satisfied if the Board conducts the review of this Application using a written hearing process.

Hydro One is not eligible for and does not intend to seek an award of costs as per the Board's Cost Award Guidelines.

Hydro One requests that documents filed with the Board in this proceeding be served as follows:



Intervenor:

Ms. Linda Gibbons
Sr. Regulatory Coordinator
Hydro One Networks Inc.

Mailing Address:
7th Floor, South Tower
483 Bay Street
Toronto, Ontario
M5G 2P5

Telephone: (416) 345-4373
Fax: (416) 345-5866
Electronic access: regulatory@HydroOne.com

Sincerely,

ORIGINAL SIGNED BY JOANNE RICHARDSON

Joanne Richardson

Cc	Jessie Malone	Imperial Oil Limited
	Warren Woodhurst	Imperial Oil Limited



Canadian Fuels
 ASSOCIATION
canadienne des carburants

Ontario Division
 1000-275 Slater St.
 Ottawa, Ontario
 Canada K1P 5H9
 t. 613.232.3709
 canadianfuels.ca



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ONTARIO ENERGY BOARD

EB-2019-0007

February 7, 2019

Ms. Kirsten Walli
 Board Secretary
 Ontario Energy Board
 P.O. Box 2319
 2300 Yonge Street, 27th Floor
 Toronto, ON M4P 1E4

Re: Imperial Sarnia Products Pipeline Waterdown to Finch Pipeline Replacement Project

Dear Ms. Walli;

On behalf of the Canadian Fuels Association (Canadian Fuels) and its members¹, we wish to lend our support to this project.

Ontario is home to five of Canada’s 16 refineries. Our members refine, distribute and market the fuels that power Ontario’s trucks, trains, ships, and we are part of Ontario’s critical infrastructure. Ontario refineries supply a significant portion of the fuels used in the Province, and the Waterdown to Finch Project pipeline replacement project will help ensure the ongoing reliability of this infrastructure and the fuels that supply Ontarians living in the Greater Toronto and Hamilton area.

In closing, reliable market access is not only key to our sector’s competitiveness but also essential to keeping people and goods moving in this Province. We encourage the Ontario Energy Board to support this application.

Sincerely,

Lisa Stilborn
 Vice President – Ontario

¹ Canadian Fuels members: Federated Co-operatives Limited, Husky Energy Inc., Imperial Oil Limited, Irving Oil, North West Redwater Partnership, Parkland Fuel Corporation, Petro-Canada Lubricants Inc., Shell Canada Limited, Suncor Energy Products Partnership and Valero Energy Inc.

APPENDIX 12 ENVIRONMENTAL REPORT ENGAGEMENT SUMMARY

From: Matthew Scoular
Sent: Wednesday, February 27, 2019 2:53 PM
To: Di Fabio, Tony (MTO) <Tony.DiFabio@ontario.ca>
Cc: Lagakos, Ted (MTO) <Ted.Lagakos@ontario.ca>; Rodek, Amanda (MTO) <Amanda.Rodek@ontario.ca>; Malone, Jessie M (jessie.m.malone@esso.ca) <jessie.m.malone@esso.ca>; Imperial Isometrix <imperial-isometrix@national.ca>
Subject: RE: Waterdown to Finch Project: Draft Environmental Report

Thank-you Tony

Best,

Matt Scoular

ERM
M +1 416 567 7126

From: Di Fabio, Tony (MTO) <Tony.DiFabio@ontario.ca>
Sent: Wednesday, February 27, 2019 2:44 PM
To: Matthew Scoular <Matthew.Scoular@erm.com>
Cc: Lagakos, Ted (MTO) <Ted.Lagakos@ontario.ca>; Rodek, Amanda (MTO) <Amanda.Rodek@ontario.ca>
Subject: RE: Waterdown to Finch Project: Draft Environmental Report

Hi Matthew,

Please find the following comments from the Ministry of Transportation for your consideration:

- At this point, MTO does not have any concerns with the subject draft report as long as the proponent follows all applicable Environmental legislation and obtains permits where required.
- If the proponent conducts any work within our right-of-way, we should be informed of these areas to ensure that they do not affect any work that MTO has done as a commitment on one of our projects.

- When the proponent finalizes the project/finalizes where they will be within our right-of-way, they should circulate MTO for more detail/final comments/possible mitigation.

Filed: 2019-08-02
EB-2019-0007
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I trust this is satisfactory.

Thanks.

Tony Di Fabio
Team Lead
Highway Corridor Management Section, Head Office
Ministry of Transportation

Tel. (905) 704-2656



From: Matthew Scoular [<mailto:Matthew.Scoular@erm.com>]
Sent: February-01-19 2:11 PM
To: Di Fabio, Tony (MTO) <Tony.DiFabio@ontario.ca>
Cc: Singh, Christian (MTO) <Christian.Singh@ontario.ca>; Curtis Campbell <Curtis.Campbell@erm.com>; Matthew Scoular <Matthew.Scoular@erm.com>; Malone, Jessie M <Jessie.m.malone@esso.ca>; Imperial Isometrix <Imperial-isometrix@national.ca>
Subject: Waterdown to Finch Project: Draft Environmental Report

Dear Tony DiFabio,

Imperial's Sarnia Products Pipeline (SPPL) is important infrastructure that provides products used by households and businesses across the Greater Toronto and Hamilton Area (GTHA). This includes a significant portion of jet fuel for Toronto Pearson International Airport, as well as gasoline and diesel fuel that keeps people, goods and services moving throughout the GTHA region.

To support continued safe, reliable, and environmentally responsible transportation of products, Imperial is planning to construct and operate a new pipeline that will replace the transportation capabilities of the existing SPPL. The Waterdown to Finch Project is the proposed installation of approximately 63-kilometres of pipeline between the company's pump station in rural Hamilton (Waterdown Station) and its terminal storage facility in Toronto's North York area (Finch Terminal).

Imperial anticipates filing a Leave to Construct application for the Waterdown to Finch Project with the Ontario Energy Board (OEB) in the first quarter of 2019. In preparation for the Leave to Construct, a pre-application filing of the draft Environmental Report has been submitted to the OEB for preliminary review. **Please see the ERM FTP site below to download the draft Environmental Report.**

URL: <https://onyx.erm.com>
Username: 0460600-0005-0003
Password: 22786P7z

Imperial is committed to regular and frequent communication as updates become available. The draft Environmental Report has been provided for early review to representatives of the Ontario Pipeline Coordinating Committee, as well as other interested stakeholders, including Conservation Authorities, Niagara Escarpment Commission, Indigenous communities, and technical contacts at municipalities along the pipeline right-of-way.

We welcome direct feedback on the Waterdown to Finch Project draft Environmental Report in advance of the regulatory application. Additionally, Imperial will provide notification when the Leave to Construct is submitted to the OEB, which will include an updated Environmental Report considering comments received to date. The company will continue to accept feedback on the Environmental Report once the Leave to Construct application is filed, and there will be further opportunities to participate more formally throughout the regulatory process.

To learn more about the Waterdown to Finch Project, please visit our website (www.imperialoil.ca/waterdowntofinch). We can be contacted directly by email at questions@imperialon.ca or by phone at 416-586-1915.

Filed: 2019-08-02
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Best,

Matt Scoular

ERM

M +1 416 567 7126

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Please visit ERM's web site: <http://www.erm.com>. To find out how ERM manages personal data, please review our [Privacy Policy](#)



NATION
huronne-wendat



Bureau du
Nionwentsio

Wendake, February 28, 2019

Ms. Kelly Williams
Imperial Oil Limited - Esso
Community Relations Officer
602, Christina Street
Sarnia, Ontario, N7T 7M5

**Object: Huron-Wendat Nation review of the Draft Environmental Report for the
Imperial Waterdown to Finch Project**

Kwe Ms. Williams,

The Huron-Wendat Nation would like to confirm that the review of the Waterdown to Finch Project Environmental Report has been completed. The Huron-Wendat Nation agrees with its content and recommendations.

However, our Nation is insisting on the fact that the archaeological studies of the project are not completed to date. Consequently, at this time, our Nation is not in position to confirm whether or not our heritage will be impacted. However, Huron-Wendat Nation would like to reiterate the importance of our engagement for any fieldwork to be conducted as well as our Nation being involved in the archaeological reports writing. Furthermore, any potential impacts on Huron-Wendat heritage must be dealt only with the Huron-Wendat Nation and no other First Nation can speak on behalf of the Huron-Wendat Nation Council.

On another note, we would also like to take this opportunity to point out that since the beginning of this whole process, the relationship between Imperial and our Nation has evolved positively. Our engagement is important, and we acknowledge Imperial Oil's efforts to establish and maintain a bilateral fruitful relationship with us.

Yours truly, Tiawenhk,

Louis Lesage, PhD
Direction of the Nionwentsio Office



Waterdown to Finch General Inquiries
questions@imperialon.ca
416.586.1915

VIA Email

May 3, 2019

Auryn Soares
Storm Drainage Coordinator, Environmental Services
Transportation & Works
City of Mississauga
201 City Centre Drive
Mississauga, ON L5B 4E4

Re: Imperial Oil – Waterdown to Finch Pipeline Project – City of Mississauga Comments on Draft Environmental Report

Dear Mr. Soares:

Thank you for your review and comments on Imperial's Draft Environmental Report. Please see responses to your questions below.

I. Transportation & Works

• *Environmental Services:*

- 1. Overall, the draft Environmental Report is still lacking in the level of detail necessary to fully evaluate potential environmental effects and preparedness in the event of accidental spills or encountering negative impacts during construction. Please provide all detailed supporting studies and contingency plans once completed.**

A Spill Prevention and Response Plan will be submitted to the Conservation Authorities as part of the permit application for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. This permit can be shared with the City after it is submitted.

- 2. The City of Mississauga requested a copy of Imperial Oil's Spill Response Plan, which was not included in the draft Environmental Report. If this cannot be provided to the City, please provide an explanation and confirm what the anticipated response time will be in the event of a spill and who at the City and the Region of Peel will be notified of the spill incident.**

Imperial has included its existing Emergency Response Plans for the Waterdown to Finch segment of the Sarnia Products Pipeline. As part of the Project, Imperial is currently reviewing these Emergency Response Plans and can provide any updates to the City once complete, which is expected to be within the coming month.

- 3. The City of Mississauga had requested more information regarding potential dewatering and discharge activities within the municipality. The draft Environmental Report did not include sufficient information. If any groundwater dewatering activities, or other activities that requires discharge of water, occur within the municipal boundaries, please indicate how the discharge water will be handled; the draft Environmental Report did not include such information. Please be advised that any discharge water entering the City's or Region of Peel's storm sewer system will require an approval in advance of discharge activities, regardless if a provincial Permit to Take Water was obtained or not. A Permit to Take Water does not include approval to discharge to a municipal system.**

Dewatering will be required during construction. Potential sources include groundwater, storm water, and standing surface water primarily in areas where the installation method is open cut trench.

Imperial will be submitting an application for a provincial Permit to Take Water to manage water originating from these sources. A Water Management Plan will be developed to support this application and will provide details and mitigation related to discharge to the environment. This permit will be submitted in summer 2019 and can be shared with the City.

Imperial is also evaluating the need to discharge hydrostatic testing water to the City's or the Region of Peel's storm sewer system. Imperial will work directly with the City and/or the Regional municipality for approvals in advance of any discharge activities to these systems.

- 4. Imperial Oil's proposed Communication Plan only includes affected residents and businesses of planned construction activities and disturbances. The Communication Plan should also include key municipal contacts including Councillors in the affected Wards. In this way, if residents or businesses in the area who did not receive the notifications, call the City's 311 line, City staff will be better prepared to respond to such inquiries and redirect any specific questions to the appropriate Imperial Oil project representatives. This will help to improve customer service and allay any potential concerns.**

Imperial is committed to providing timely and accessible information throughout the duration of the Project. Since its launch in May 2018, Imperial has implemented a robust public engagement process. In addition to community engagement, Imperial has provided notifications and held briefings as required with the Mayor's office, Councillors in affected wards, City of Mississauga staff, as well as local Members of Provincial Parliament and local Members of Parliament in affected ridings. As part of the Communication Plan, these key contacts, including municipal staff, local Councillors and the Mayor's office, will be provided information and contact details to support and direct inquiries from residents or businesses. Imperial will also ensure 311 is notified and the construction notification will be made publically available on Imperial's Waterdown to Finch Project website at imperialoil.ca/waterdowntofinch.

- 5. In Appendix B: Consultation Key Comment and Response Table, the City of Mississauga's Key Comments is limited to a single comment by a local Councillor. This table is insufficient and does not properly reflect the level of detail and types of comments submitted to Imperial Oil by City of Mississauga staff. While it may be reasonable for Imperial Oil to summarize City staff comments to a shorter list of issues, it is not acceptable to completely omit staff comments entirely in the Environmental Report. At minimum, Imperial Oil should indicate they received a set of written comments from the City of Mississauga, dated September 14, 2018 and provide a summary of their responses to date.**

Imperial acknowledges the inquiries from the City of Mississauga and its subsequent responses. Topics included pipeline integrity management, access agreements, tree line protection, erosion control, heritage planning, construction environmental management, and consultation activities. The questions were reviewed by subject matter experts, and we appreciate the time and resources that were allocated to developing the queries. The technical considerations have been shared with the discipline leads who oversee those particular areas of the Project.

The Environmental Report formed a part of Imperial's pre-filed evidence submission to the Ontario Energy Board. It was developed in advance of the Leave to Construct application, and includes a thorough review of the natural, social, economic, cultural and built components of Project. This report was authored by an independent third-party and submitted to a committee consisting of provincial and municipal agencies, as well as other affected and interested parties to provide technical input. On February 1, 2019, an electronic copy of the Environmental Report was also submitted to respective municipalities, including Mississauga. The Environmental Report includes a Key Comment and Response Table that is intended to summarize comments or concerns raised by interested parties through the consultation process as they pertain to the development of the Environmental Report or broader environmental considerations.

Imperial's Leave to Construct document includes Exhibit H, Record of Consultation and supporting documents. Exhibit H includes a broader record of consultation, stakeholder interactions and detailed

supporting documents such as correspondence, materials and meeting minutes. All questions and related responses for the City of Mississauga will be captured in an update to the broader Record of Consultation in the coming months and be placed into the official public record through that reporting channel. Some of the considerations raised in the City of Mississauga's September submission are also subject to ongoing technical discussions between the City and Imperial, including the land and permitting team, supported by the company's infrastructure development consultant, CanACRE.

6. Please provide a Contaminated Materials Management and Handling Plan describing the handling, testing, storage, treatment and disposal of contaminated soil and water (i.e. groundwater and surface water).

The Contaminated Materials Management and Handling Plan is not part of a regulatory application submission. Imperial is willing to work with the City to understand and address their concerns related to handling of contaminated materials. A Contaminated Materials Management and Handling Plan will be developed prior to construction

7. Please provide a Monitoring and Maintenance Plan to demonstrate safety once the pipeline is in operation.

Monitoring and maintenance of the proposed pipeline will continue as is currently in place for the existing line and is compliant with TSSA requirements. These measures include 24/7 pressure monitoring by a remote operations control centre, weekly aerial patrols and patrols by truck and by foot conducted along the pipeline's path, and specialized tools such as SmartBalls and Smart Pigs used to confirm both internal and external characteristics of the pipeline and identify necessary repairs.

8. We look forward to reviewing the Erosion & Sediment Control, Water Management and Restoration Plans. Please note that at the design stage, site specific plans would be expected for each watercourse crossing.

An Erosion and Sediment Control Plan and Water Management Plan will be submitted to the Ministry of Environment, Conservation and Parks in support of the provincial Permit to Take Water and can be shared at that time with the City. A Reclamation Plan will be developed and shared with the City as per permitting requirements. Site-specific plans related to watercourse crossings will be included in the Conservation Authority permit applications.

9. In the detailed design phase, please indicate when crossing over underground utilities (e.g. storm sewers) with heavy equipment how the risk of damaging these utilities will be avoided or mitigated.

During the design phase, all lands planned for construction are surveyed to identify all underground utilities. Once identified, temporary crossing applications are submitted, which include details related to equipment used for crossing and respective loads. All requirements and conditions of the approvals will be adhered to by Imperial. Matting and air bridging are engineered techniques that can be used to spread the load of heavy equipment without impacting underground utilities only if needed.

• *MiWay.*

10. We don't have any new comments at this time. However, there are a number comments from the initial comment sheet that have yet to be answered. If Imperial Oil could please provide responses to the outstanding comments and provide details/drawings regarding the limits of construction/staging as soon as available. MiWay would like to ensure all potential impacts to stations, routes and transit infrastructure are identified and mitigated.

A submission of crossing drawings was submitted to the City for review and comment on April 15, 2019, including roads operated by the City, and City roads under MTO jurisdiction. An additional submission of crossing drawings was submitted on April 29, 2019, specific to MiWay road infrastructure such as bus rapid transit and parking.

II. Community Services

- *Heritage Planning:*

- 11. Heritage planning has reviewed the draft report and look forward to reviewing the Stage 1 Archaeological Assessment as well as the Existing Conditions Report on cultural heritage landscapes and built heritage resources once completed. Heritage planning may have further comments once we have had the opportunity to review both documents.**

Once submitted to the Ministry of Tourism, Culture and Sport, Imperial can share the Stage 1 Archaeological Assessment Report. A Heritage Impact Assessment will be developed and submitted to the municipalities for review and approval, where required under the *Ontario Heritage Act*.

- *Parks & Forestry:*

- 12. Forestry staff look forward to reviewing site specific plans for work taking place within or adjacent to Mississauga's Natural Heritage System. Plans should include: extent of work area identifying site specific impacts to natural heritage features, detailed mitigation measures from Environmental Report to be implemented, and restoration plans.**

Imperial can provide mapping identifying the proposed workspace overlapping or adjacent to Natural Heritage Features and site-specific mitigation measures prior to construction. A Reclamation Plan will be developed and shared with the City as per permitting requirements.

- 13. Forestry staff advise that Page 4-17 identifies that W024 does not meet the criteria for significant woodland. As per Mississauga's Official Plan Section 6.3.14, the woodland is greater than 0.5 hectares and as such meets the criteria for a Natural Green Space. As such, in addition to site specific plans for work within or adjacent to the Natural Heritage System, please provide site specific plans for work surrounding W024 for review by Forestry. Impacts to trees outside of Natural Heritage System and W024 should also be reviewed by Forestry.**

We are in agreement that the feature W024 does not meet the requirements of a significant woodland, but acknowledge that the feature would meet the requirements of Natural Green Space under the City's Official Plan. Information and plans around tree removals outside of the Natural Heritage System and around W024 will be provided through the City permitting process.

- 14. In regard to proposed construction work that will occur within City owned parks, please provide additional information regarding construction access and remediation agreements with the City and any adverse impact including any damage or impairment to the natural environment.**

Temporary access roads and workspaces will be required to construct the project. Imperial will work with the City to secure all necessary construction access or Consent to Enter agreements for City-owned parks, and adhere to mutually agreed upon remediation conditions such agreements contain.

- 15. This Division further understands that Imperial Oil wants to commence the construction of the pipeline at the end of 2019 and complete the construction late 2020. Community Services Department has several Off-Road Trails (ORT's), within the corridor, scheduled to be constructed before (pre-construction work) and during the pipeline construction. As such, further discussion is required to coordination construction timeline.**

The City and Imperial previously discussed the upcoming construction of ORT7 within the corridor on a conference call on August 10, 2018. Staff from Mississauga Parks later provided Imperial with CAD and PDF files of the ORT7 design plans on August 17, 2018, which were reviewed in tandem with initial pipeline routing considerations. For the majority of the extent of ORT7, the pipeline is proposed on the opposite side of the corridor and will use Horizontal Directional Drilling below grade to minimize disruptions in the area.

Imperial would like to request that any ORT design plan updates be shared for further review in advance of a discussion regarding layout and construction scheduling and coordination.

16. The draft Report should include the impacts the pre-construction and construction would have on the natural environment including timing of the City's new and reconstructed ORT's. Staff would more than to help reference the timing of construction or reconstruction of ORT's in the draft Environmental Report – Imperial Oil that may impact the pipeline.

For the majority of the extent of ORT7, the pipeline is proposed on the opposite side of the corridor and will use Horizontal Directional Drilling to minimize disruptions in the area, based on City plans provided to Imperial in August 2018. As such Imperial do not anticipate any impact to the surface environment during pre-construction or during construction.

Imperial would like to request that any updated plans and schedules for ORT7, as well as any existing ORTs that are to be reconstructed, be shared.

If you would like to discuss any of the above comments further, or have any other questions please do not hesitate to contact me.

Yours truly,

Jessie Malone
Environmental and Regulatory Lead



Waterdown to Finch General Inquiries
questions@imperialon.ca
416.586.1915

VIA Email

July 5, 2019

Caroline Mugo
Planner, Infrastructure Planning and Permits
Development and Engineering Services Division
Toronto and Region Conservation Authority
101 Exchange Avenue, Vaughan, ON, L4K 5R6

**Re: Response to Draft Environmental Report
Waterdown to Finch Pipeline Replacement Project
Ontario Energy Board Leave to Construct Application
Etobicoke Creek, Mimico Creek and Humber River Watersheds; City of Mississauga, Regional
Municipality of Peel; Etobicoke York and North York Community Council Areas, City of Toronto**

Dear Ms. Mugo:

Thank you for your review and comments on Imperial's Environmental Report in the letter to Imperial dated March 8, 2019. Please see responses to your questions below.

TRCA Property

- 1. The pipeline is proposed within an existing utility corridor that is located in part within the Natural System and traverses across a number of valleys, watercourses, wetlands and other environmentally sensitive areas within the Humber River Watershed. Large swathes of TRCA property also abuts this section of the utility corridor on both sides. TRCA staff is interested in initiating a partnership with Imperial Oil to develop an integrated trail strategy with connections into TRCA property and through the utility corridor. It is staff opinion that the implementation of an integrated trail strategy will serve to provide many public realm benefits through the provision of under-utilized space for public use. Furthermore, if permanent access routes are needed for the monitoring, maintenance or operation of the pipeline, these access routes may be integrated as a part of the trail system. Please note that discussions pertaining to the development of an integrated trail strategy in this area was initiated between TRCA and Imperial Oil staff at the Imperial Oil Emergency Response Exercise in October 2018. Please contact TRCA staff to arrange a kick-off meeting to begin the mapping and planning process for an integrated trail strategy, which will include consultation with landowners and other relevant stakeholders.*

Imperial is open to discussing community investment or sponsorship opportunities with the TRCA. An initial meeting between TRCA and Imperial was held on November 8, 2019 to discuss community investment opportunities and Imperial looks forward to reviewing the details of specific opportunities (such as the Humber River anniversary activities) as discussed.

- 2. Please note that TRCA properties are located adjacent to the existing utility corridor on both sides within the City of Toronto. Although the proposed pipeline is located entirely within the utility corridor, please contact TRCA staff as early as possible if TRCA property is impacted by the need for permanent easements, temporary working space or access. Please note that compensation and mitigation requirements will need to be agreed upon prior to any TRCA property or access agreements, including for both permanent and temporary easements. Please also note that there are archaeological requirements associated with permanent easements, temporary working space or access on TRCA property which must be undertaken by in-house TRCA staff archaeologists. Staff is currently in consultation with Imperial Oil staff regarding a permanent and temporary easement on TRCA property located just west of Albion Road. Please continue to consult with TRCA staff regarding any property requirements.*

Imperial will continue to engage with TRCA staff regarding the need for permanent easement, temporary workspace, or access on TRCA owned land. Regarding archaeological potential on TRCA owned lands, TRCA has reviewed the project footprint and provided two screening reports which indicate no further concerns due to previous disturbance (HR19-01) and a commitment to implement mitigation measures (HR19-07).

Watercourse, Wetland and Natural Feature or Hazard Crossings

3. *Staff acknowledges that the identification and characterization of environmental features has been undertaken at a coarse-level as identified in maps in Appendices C and D. At detailed design, site specific delineation and characterization of natural features and hazards should be provided to ensure that they are not impacted by pipeline alignment or installation method, which includes location and size of temporary work spaces, access routes and bore pits. Proper characterization of features and hazards along with appropriate pipeline alignment will also mitigate the new pipeline from being exposed overtime. Please clearly identify all natural features and hazards, and depth of cover along the entire pipeline alignment on the drawings at detailed design. Please note that site visits with TRCA staff may be required at certain locations along the pipeline. Please contact TRCA staff to identify and arrange for site visits prior to detailed design.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see section 2.0 for the characterization of existing conditions; Figures 2.1-1 a to f for mapping of proposed pipeline route, Appendix D for engineering design drawings for site-specific watercourse crossings and Appendix F for a listing of natural heritage features.

A site visit with the TRCA, Imperial, UPI and ERM representatives occurred on June 6, 2019.

4. *Ideally, linear infrastructure should avoid crossing environmental features. Where there is no other alternative and a watercourse crossing is required, linear infrastructure should be installed perpendicular and not parallel to a watercourse, while maintaining depth of cover not only under the watercourse but along the entire valley wall. As a minimum, the proposed pipeline should be located beyond the meander belt, 100-year erosion limit and long-term stable top of slope, with at least 2.0 m depth of cover between the obvert of the pipeline and the invert of the crossing. Should the distance be less than 2.0 m, a fluvial geomorphology report may be required to ensure stream bed erosion will not impact the pipeline. A long-term slope stability assessment may also be required in some areas to ensure that there is sufficient depth of cover away from valley slopes to prevent future pipeline exposure. At detailed design, please provide all appropriate studies to support the horizontal and vertical alignment of the pipeline, along with the detailed design drawings.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Appendix C for the channel and bank erosion assessment and Appendix D for engineering design drawings for site-specific watercourse crossings. Detailed design drawings will be provided in the TRCA application update.

5. *Please note that it is TRCA staff's preference that all watercourse crossings (not only Class 1 Streams) be installed with trenchless methods and drill sites be accessed from either side of the watercourse to the extent feasible. Where open cut installation is proposed or where a temporary crossing is required, please provide justification as to why trenchless installation or access from either side of the watercourse is not feasible.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Figures 2.1-1 a to f for mapping of proposed pipeline route and Table 2.2-1 for a listing of watercourse crossings and proposed construction methods.

6. *Please note that it is TRCA staff's preference that all wetlands (not only Provincially Significant Wetland (PSW)) crossings be installed with trenchless methods. However, where trenchless methods are not feasible, staff support the use of timber matting adjacent to open cut as well as appropriate timing of installation (i.e. during dormant periods) as noted in the mitigation measures table. Staff expect these mitigation methods be carried out during detailed design.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Figures 2.1-1 a to f for mapping of proposed pipeline route, Table 2.1-1 for a listing of wetland crossings and proposed construction methods and Appendix D for engineering design drawings for site-specific watercourse crossings.

7. *Staff supports the use of trenchless methods to reduce impact on watercourses, wetlands and other sensitive features. It is understood that long horizontal direction drill (HDD) segments are proposed in some areas, including at Humber River and Emery Creek.*
- a. *It is staff experience that long HDD installations often require relief pits, as well as access to relief pits. Please identify the location of potential relief pit areas as well as access routes. Moreover, please ensure that relief pits are set back from the watercourse, out of the floodplain, and in areas that do not pose a risk to erosion. Any temporary work space for the relief pits and required access within the Natural System will need to be restored and compensated.*
 - b. *Please consider the amount of temporary work space required to accommodate the pull back of a long HDD drill, and how this may impact adjacent and nearby watercourse and road crossings.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Figures 2.1-1 a to f for mapping of proposed pipeline route, section 3.1.1.1 for a description of Horizontal Directional Drilling, section 5.5 for a description of environmental avoidance and mitigation measures and Appendix D for engineering design drawings for site-specific watercourse crossings.

8. *Please note that all required above-surface infrastructure in support of the pipeline (i.e. valves) should be sited appropriately and set back from natural hazards and features to the extent possible.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see section 3.1 for a description of the proposed work and Figures 2.1-1 a to f for mapping of the proposed pipeline route.

9. *Staff understands that operation of the new pipeline will involve 24/7 monitoring from Imperial Oil's dedicated control centre, augmented by routine aerial and ground visual inspections for the pipeline right-of-way (ROW) (Section 2.8). At detailed design, please provide details in regards to a postconstruction ongoing geohazard risk assessment and monitoring program of both the existing and new pipeline to enable early detection of slope and channel erosion hazards. Details should include thresholds at which remedial action is required, as well as the nature of remedial action should an erosion hazard be detected.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Details regarding ongoing geohazard risk and mitigation measures will be provided in the TRCA application update.

10. *Please include Wetland and Watercourse Crossing IDs identified within Appendix F in mapping provided within Appendices C and D.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Figures 2.1-1 a to f for mapping of the proposed pipeline route and Appendix D for engineering design drawings for site-specific watercourse crossings.

Environmental Protection, Management and Contingency Plans

11. *At detailed design, please provide identified environmental protection, management and contingency plans for staff review. In particular, staff are interested in seeing the Environmental Protection Plan (EPP), Erosion and Sediment Control Plan (ESCP), Water Management Plan, Reclamation Plan, Spill Prevention and Response Plan, and Inadvertent Returns during HDD Plan.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Appendix E for the Erosion and Sediment Control Plan.

The Water Management Plan is included in an Appendix to the Water Taking Permit submitted to the MECF of May 31, 2019.

The EPP, the Reclamation Plan, the Spill Prevention and Response Plan, the Contaminated Material Management and Handling Plan and the Inadvertent Returns during HDD Plan will be provided in the TRCA application update.

12. *In regards to the ESCP, please note that mitigation measures should conform to the Erosion and Sediment Control Guidelines for Urban Construction (2006). At detailed design, please provide an ESCP with details, locations and supporting calculations for the proposed measures.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Appendix E for the Erosion and Sediment Control Plan.

13. *In regards to the Water Management Plan, please note that where dewatering is required the flow from the dewatering pump should be treated prior to flowing to the watercourse. A filter bag or temporary sediment trap should be utilized to treat the discharged flows. The discharge from dewatering must be dispersed from the filter bag or trap through a vegetated area a minimum of 30 m away from the watercourse. At detailed design, please provide the expected pumping rate, duration and estimated amount of water to be discharged into receiving waters.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Appendix D for engineering design drawings for site-specific watercourse crossing.

The Water Management Plan is included in an Appendix to the Water Taking Permit submitted to the MECF of May 31, 2019.

14. *In regards to the Reclamation Plan, please note that although TRCA staff appreciates the effort to restore temporary work spaces and disturbed areas within the Natural System with sediment, the removal of woody vegetation (trees and shrubs) as well as the lag time associated with replacing this stock in the landscape will also need to be considered. Please ensure that compensation for the temporary and permanent removal of vegetation within the Natural System is completed in accordance with the Guideline for Determining Ecosystem Compensation (2018). Please note that restoration and compensation opportunities may be sought with the TRCA Restoration Projects group.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

A Reclamation Plan will be provided in the TRCA application update.

Construction Typical Drawings

15. *Due to insufficient time provided to staff to review the draft ER, it is staff expectation that details within the construction typical drawings will be refined at detailed design. These refinements may include, but are not limited to:*

- a. *Size and location of temporary work spaces. These appear to be excessively large in the typical drawings for isolated open cut and HDD. Please note that staff expects that temporary work spaces will be minimized to the extent feasible within TRCA regulated areas.*
- b. *Stabilization and restoration associated with watercourses. Please note that TRCA staff does not support the use of rip rap for watercourse restoration. At detailed design, staff expects that watercourse restoration will be completed in accordance with the TRCA Channel Modification Design and Submission Requirements (2007).*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Appendix D for engineering design drawings for site-specific watercourse crossing.

TRCA's comments on the use of rip rap for watercourse restoration were considered during preparation of the ESC Plan (Appendix E).

If you would like to discuss any of the above comments further, or have any other questions please do not hesitate to contact me

Yours truly,



Jessie Malone
Environmental and Regulatory Lead
587.476.4799
jessie.m.malone@esso.ca

cc: Nicole Bishop, Project Manager, ERM
Bill Snodgrass, Senior Engineer, City of Toronto
Darren Kenny, Watershed Officer, HCA
Charles Priddle, Coordinator, CH
Ben Davis, Regulations Officer, CH
Liam Marray, Manager Planning Ecology, CVC
Jakub Kilis, Senior Planner, Environmental Assessment, CVC
Beth Williston, Senior Manager, Infrastructure Planning and Permits, TRCA
Sharon Lingertat, Senior Planner, Infrastructure Planning and Permits, TRCA
Renee Afoom-Boateng, Senior Planner, Infrastructure Planning and Permits, TRCA
Edlyn Wong, Property Agent, Property and Risk Management, TRCA
Ralph Toniger, Associate Director, Resource Management Projects, TRCA
Chandra Sharma, Director, Community Engagement and Outreach, TRCA
Victoria Kramkowski, Government and Community Relations Specialist, Peel Watersheds
Sonia Dhir, Senior Program Manager, Humber and Urban Agriculture Program Lead



Waterdown to Finch General Inquiries
questions@imperialon.ca
416.586.1915

VIA Email

July 5, 2019

Charles Priddle, Ph.D.
Coordinator, Regulations Program
Conservation Halton
2596 Britannia Road West
Burlington, Ontario L7P 0G3

Re:

**Response to Draft Environmental Report
Waterdown to Finch Pipeline Replacement Project
Ontario Energy Board Leave to Construct Application
Grindstone Creek, Appleby Creek, Bronte Creek, Sixteen Creek and Joshua's Creek Watersheds
City of Hamilton, City of Burlington, Town of Oakville and City of Mississauga
CH File: MPR 729**

Dear Mr. Priddle:

Thank you for your review and comments on Imperial's Environmental Report in the letter to Imperial dated March 19, 2019. Please see responses to your questions below.

General Comments

1. *Staff request that the Environmental Protection Plan (EPP) be submitted to the agencies for review. For CH's watershed we recommend that restoration and compensation be in keeping with CH's Landscaping and Tree Preservation Plan Guideline available online at: www.conservationhalton.ca.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Imperial will provide the EPP to CH in an application update. Project restoration and compensation measures will consider CH's Landscaping and Tree Preservation Plan Guideline and implement mitigation from the Guideline where practicable.

2. *In addition to the mitigation measures outlined in the ER and identified below, the following information will be required at the detailed design stage in support of permit applications for works within lands regulated pursuant to Ontario Regulation 162/06:*
 - a. *The most current Approximate Regulation Limit mapping and checklists should be obtained from CH prior to submitting permit applications.*
 - b. *All temporary construction/work areas should be clearly identified on design drawings.*
 - c. *Detailed plan and profile views of all watercourse crossings. The pipeline must be located a minimum of 1.2 m below the creek invert. In sensitive areas or areas of high susceptibility to erosion, cover requirements may increase to up to 3 m or as determined through a detailed fluvial geomorphological assessment. Once more details are available, cover requirements for each crossing can be established in conjunction with CH staff.*
 - d. *Detailed plan and provide views of all other features being crossed including valleys and wetlands. Once more details are available, requirements for each crossing can be established in conjunction with CH staff.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

The application includes watercourse and wetland crossings in Regulated Areas as provided by CH on April 18, 2019.

Please see Figure 2.1-1 for mapping of the proposed pipeline route and Appendix D for engineering design drawings for site-specific watercourse crossings.

A typical HDD profile drawing is also included in Appendix D; site-specific HDD profiles will be provided in an application update.

Section 4, Existing Environmental and Socio-Economic Conditions & Section 5, Effects Assessment – General Comments

3. *CH recommends that the ER address natural hazards. These hazards include flooding, valley slopes and stream erosion as well as unstable bedrock and unstable soils. These could be addressed as one or more separate features and/or as part of the currently assessed Physiography and Geology, Soils, and/or Surface Water features.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Appendix C for a channel and bank erosion assessment.

The Environmental Protection Plan will be provided in an application update.

4. *With respect to flooding and/or stream erosion, key mitigation measures include:*
 - a. *Designing all works, including temporary construction crossings, to ensure there will be no increased flooding on lands outside of Imperial Oil's easements and no increased risk to life or property within the easements.*
 - b. *Rehabilitation of any watercourse and floodplain impacted by construction to pre-development conditions.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Appendix E for the Erosion and Sediment Control Plan.

The Reclamation Plan will be provided in an application update.

5. *Currently only Class 1 watercourses are proposed for trenchless crossing. Staff recommend that this be expanded to all watercourses, where feasible, to decrease potential impacts to the system. Where it is not feasible, staff would request justification as to why trenchless is not possible and ensure mitigation measures listed in the report are carried forward to detailed design.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Figure 2.1-1 for the proposed pipeline mapping and Table 2.2-1 for a listing of watercourse crossings and proposed construction methods.

6. *To avoid slope stability issues, it is recommended that directional drilling be used at all confined valleys with entry and exit pits located a minimum of 15 m away from the stable top of valley slope. Alternatively, site visits should be arranged with CH staff for all confined valleys where works are proposed within the valley to determine whether staff would be able to support a future permit application. See Appendix D comments below for specific areas of concern.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Appendix D for engineering design drawings for site-specific watercourse crossings and Appendix E for the Erosion and Sediment Control Plan.

A steep slopes report will be submitted as part of the Niagara Escarpment Commission's Development permit application.

A site visit with CH, Imperial, UPI and ERM representatives occurred on June 14, 2019.

7. *Provincially Significant Wetlands (PSWs) are identified for trenchless crossings. To reduce potential impacts, we recommend that trenchless crossing occur for all wetlands, where feasible. Wetlands will need to be delineated with CH staff in the appropriate field season. We also note that Wetland 12 is a PSW but is currently listed as having an open cut in Table F-3.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Table 2.1-1 for a listing of wetland crossings and proposed construction methods and Appendix D for engineering design drawings for site-specific waterbody crossings.

The crossing method for Wetland 12 (WT_12) has been changed to an HDD. It is included in the scope of the Credit Valley Conservation Authority permit application.

Section 4.2.3, Groundwater, Page 4-8

8. *The pipeline alignment crosses Sixteen Mile Creek, East Sixteen Mile Creek and Joshua Creek Event Based Areas where conveyance of oil in a pipeline is a significant threat to drinking water source. Although Event Based Areas are mentioned in the report (page 4-8, 2nd last paragraph), there is no discussion what this means for the proposed project. For any questions regarding source protection policies which may apply to this project staff recommend consultation with the Halton Region Risk Management Official.*

Imperial has been in contact with Diane Bloomfield, Manager at Halton-Hamilton Source Protection Region regarding updates to the current pipeline model used to model hydrocarbon pipeline spills in the area. Imperial is working with the Source Water Protection Region to help validate the model assumptions and determine if they are an appropriate representation of the SPPL.

Section 5.2.1, Physiography and Geology, Pages 5-1 to 5-3

9. *The exact location of karst is often unknown. As such, it is recommended that the ER identify a commitment to preparing a Contingency Plan and construction contracts/specifications that outlines the steps that will be taken in the event that karst is encountered during construction. The Contingency Plan should identify at a minimum:*
- a. *Areas of Potential karst'*
 - b. *The need to have personnel knowledgeable of karst on site in those areas during construction.*
 - c. *A requirement to stop construction and undertaken additional field study in the event that karst or the possibility of karst is observed in the field; and.*
 - d. *Commitments to adapt alternative construction techniques and erosion and sediment controls based on the specifics of the site*

Imperial has developed a Karst Terrain report to be submitted to the Niagara Escarpment Commission as a supporting document to the development permit application. Once submitted, Imperial will provide CH with a copy. This report includes information on areas of known/potential karst and site-specific mitigation measures.

The Project EPP will include these contingency measures in the event that karst is encountered during construction.

10. *Staff specifically note that there are areas of very shallow carbonate bedrock near Lake Medad and east of Lake Medad, through which HDD methods are proposed for pipeline installation. If karst is present in such conditions staff recommend that a karst assessment is done beforehand to identify areas of potential karst and propose adequate construction method and/or provide appropriate mitigation measures.*

This area is identified in the Karst Terrain report mentioned above. Depending on the results of the preliminary geotech program, Imperial may consider additional pre-construction work to further inform the planned HDD.

Section 5.2.3, Groundwater, Page 5-6, 4th paragraph

11. *Negative dewatering effects private water supply wells which are more than 20 m deep with shallow groundwater levels are possible depending on where the water pumps and/or water intakes (eg: foot valves for shallow jet pumps) are located within the well column. This should be added to the private well assessment and mitigation measures should be proposed (eg lowering of pumps, replacing shallow jet with deep jet pumps, etc.)*

Potential impacts to private groundwater supply wells were considered in the Water Taking Permit application submitted to the MECP on May 31, 2019.

Imperial will consider this guidance for their 2019 private water well survey and mitigation measures will be included in the Project EPP, where required.

12. *In Halton Region, flowing wells exist in areas immediately below the Niagara Escarpment and in lower lying areas such as creek valleys. Since flowing wells may be affected by dewatering depending on local geology and their location vs the construction area, they should be added to the private well assessment.*

Potential impacts to private groundwater supply wells were considered in the Water Taking Permit application submitted to the MECP on May 31, 2019.

Imperial requests that CH provides the GPS locations of these flowing wells, if available. Consideration will be made to add flowing wells to the private water well survey, pending landowner consent.

Section 5.2.3, Potential Effect, Key Mitigation Measures, and Net Effects on Groundwater

13. *Considering the linear construction of the project in areas where backfill will have higher hydraulic conductivity (due to type of soil or reduced compaction around the pipeline), there is a potential to create groundwater preferential pathways along the alignment of the pipeline. The groundwater preferential pathways can cause changes to groundwater levels, flows and contaminant transport along the alignment of pipeline. This should be added to the table and mitigation measures proposed, such as constructing impermeable collars at intervals along the alignment of the pipeline, etc.*

The use of impermeable collars (such as clay plugs or sandbags) to prevent channeling will be added to Project mitigation planning and will be implemented as practicable.

Section 5.2.4, Surface Water, Pages 5-7 to 5-8

14. *Diversion of stream flows around work areas should be added as a Key Mitigation Measure within the discussion as well as Table 5.2-4; Potential Effect, Key Mitigation Measures and Net Effects on Surface Water Resources.*

Stream flows will be diverted around isolation areas for isolation open cut crossings. The isolation open cut typical drawings are included in the application.

Section 5.3.1, Vegetation and Wetlands, Page 5-9 to 5-12

15. *Mitigation measures outlined for trenchless crossings of watercourses on Page 5-16 are also relevant to crossings of sensitive vegetation communities, including PSWs. Ideally, these would be added to Section 5.3.1 of the ER.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see section 3.1.1 for a description of trenchless crossings and Appendix D for engineering design drawings for site-specific watercourse crossings.

Section 5.3.2, Wildlife and Wildlife Habitat, Pages 5-12 to 5-15

16. *Discussion of impacts and mitigation as it relates to Significant Wildlife Habitat for Species of Conservation Concern does not include the Regionally Rare species identified in the report. Revise Section 5.3.2 to discuss these species.*

Imperial is working with the Ministry of Environment, Conservation and Parks to determine permitting requirements, avoidance and mitigation measures associated with potential impacts to Species at Risk and habitat.

Section 5.3.3, Fish and Fish Habitat, Pages 5-16 to 5-21

17. *Groundwater dewatering discharge quality should be added to Table 5.3.3 and Key Mitigation Measures proposed.*

A Water Taking Permit application was submitted to the MECP on May 31, 2019. This application included mitigation measures related to groundwater dewatering discharge quality.

18. *Detailed drawings illustrating the existing stream must be included with permit application submissions. Photographs of existing conditions would also be beneficial.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Appendix D for engineering design drawings for site-specific watercourse crossings. Appendix G includes site-specific environmental plans including site photographs.

Section 5.3.4, Species at Risk, Pages 5-22 to 5-23

19. *This section notes that discussion on aquatic species at risk are located in Section 5.3.3; however, staff are unable to locate specific mitigation for aquatic SAR. Please revise.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Table 2.2-1 for a listing of watercourse crossings, presence of aquatic SAR and proposed construction and mitigation methods.

Section 7, Water Management Plan (WMP), Page 7-2, 3rd paragraph

20. *The ER includes very little detail on construction surface and groundwater monitoring. The very short write-up on the proposed WMP (page 7-2, 3rd paragraph) mentions that the plan will outline mitigation measures for various reasons. For a WMP to be functional and effective there must be a monitoring and mitigation plan proposed. The WMP report should include details of surface and groundwater monitoring (quality and quantity) for areas where these resources can be impacted by the proposed works, trigger levels should be set and adequate mitigation measures proposed.*

A Water Management Plan was submitted in support of the Water Taking Permit to the MECP on May 31, 2019. The WMP includes details of surface and groundwater monitoring and mitigation (quantity and quality).

Appendix D, Environmental Features Map, Pages 7 of 7

21. Please add reference numbers for the crossings to the figures.

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Waterbody crossing reference numbers are included on Figure 2.1-1 and Appendix D engineering design drawings.

22. Based on a desk top exercise, we recommend trenchless crossings also be used at the following confined valley locations:

- c. Bronte Creek Tributary Crossings #23 to #28 (9+992 to 10+877).
- d. Bronte Creek Tributary Crossing #33 (12+ 137).
- e. Sixteen Mile Creek Tributary Crossing #50 (19+557).

In the event that Imperial Oil would prefer to use open cut construction or equipment access at any of the above locations, please arrange for site visits with CH staff to allow for field evaluation of the proposed methodology.

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Table 2.2-1 for a listing of watercourse crossings and proposed construction methods. Sixteen Mile Creek Crossing (WC_15.1) is a planned HDD.

A site visit with CH, Imperial, UPI and ERM representatives occurred on June 14, 2019. Site visits included Bronte Creek Tributary Crossing (WC_9.1).

Other

23. *In several watercourse crossings, fish timing windows are specified without having data to support the proposed timing window. Depending on the depth of the pipelines, we recommend that the thermal regime of all watercourses to be established and the fish timing window be based on this. CH may have data outside of the referenced watershed studies that could assist in this characterization and recommend the consultant discuss this with staff further. We recommend that "Appendix I: Wild life Restricted Activity Periods" also be updated to include the fish timing windows.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see Appendix G for site-specific environmental plans included Restricted Activity Periods.

24. *At detailed design, site specific delineation and characterization of natural features should be provided to ensure that proposed restoration is appropriate.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

Please see section 2.0 for a characterization of existing conditions, Figure 2.1-1 for the proposed pipeline mapping and Appendix F for a listing of natural heritage features.

If you would like to discuss any of the above comments further, or have any other questions please do not hesitate to contact me.

Yours truly,



Jessie Malone
Environmental and Regulatory Lead
587.476.4799
jessie.m.malone@esso.ca

cc:

Nicole Bishop, Project Manager, ERM
Janette Brenner, Coordinator, Water Resources Engineering, CH
Lesley Matich, Coordinator, Planning Ecology, CH
Jacek Stakowski, Hydrogeologist, CH
Bill Snodgrass, Senior Engineer, City of Toronto
Darren Kenny, Watershed Officer, HCA
Liam Marray, Manager Planning Ecology, CVC
Jakub Kilis, Senior Planner, Environmental Assessment, CVC
Caroline Mugo, Planner, Infrastructure Planning and Permits, TRCA



Waterdown to Finch General Inquiries
questions@imperialon.ca
416.586.1915

VIA Email

July 5, 2019

Darren Kenny
Watershed Officer
Hamilton Conservation Authority
P.O. Box 81067, 838 Mineral Springs Road
Ancaster, Ontario L9G 4X1

Re:
Response to Draft Environmental Report
Waterdown to Finch Pipeline Replacement Project
Ontario Energy Board Leave to Construct Application

Dear Mr. Kenny:

Thank you for your review and comments on Imperial's Environmental Report in your email dated March 1, 2019. Please see responses to your questions below.

1. *Pg. 46 (Section 4.2.4) and Pg. 214 (Table F-3) - Point of clarification - this project is located within the Borer's Creek watershed, not the Rock Chapel Creek watershed.*

Watershed name has been updated. Please see Figure 2.1-1 and Table 2.2-1.

2. *Pg. 86 (second last paragraph) – Root pruning (by a qualified arborist) can also be used to minimize damage to trees not required to be removed for pipeline construction.*

Imperial will add root pruning (by a qualified arborist) to Project mitigation planning to minimize damage to trees not required to be removed for pipeline construction.

3. *Pg. 89 – Once prepared, our office should receive an e-copy of the Environmental Protection Plan.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

The Environmental Protection Plan is currently being drafted and will be provided to the HCA in an application update.

4. *Pg. 94 (Table 5.3-3 bullet 7) – Please note that straw bales are not an acceptable ESC measure. Stabilization may require erosion control blankets or similar measures depending on the site and time of year that the work is completed.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

The use of straw bales as an erosion and sediment control measure has been removed from the potential mitigation measures and will not be included in the ESC Plan (Appendix E).

5. *Pg. 117 (Section 7) – As part of the future regulation application to our office and for our information, we will require copies of the esc plan, water management plan, reclamation plan, spill prevention and response plan, contaminated materials plan, and HDD frac-out contingency plan and geotechnical support.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

The Erosion and Sediment Control Plan is provided in Appendix E.

The Water Management Plan is included in an Appendix to the Water Taking Permit submitted to the MECP of May 31, 2019.

The Reclamation Plan, the Spill Prevention and Response Plan, and the Contaminated Material Management and Handling Plan will be provided to the HCA in an application update.

There are no planned HDDs in the HCA, therefore the Inadvertent Returns during HDD Plan and the HDD geotechnical investigation results will not be submitted.

6. *Pg. 118 – The HCA should be contacted for input/review regarding the seed mixes and tree species to be used in the restoration plan. Tree/vegetation removals plan will also be required.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

The Reclamation Plan will be submitted to the HCA in an application update. Seed mixes will be developed in consultation with HCA.

7. *Pg. 134 – For flooded wetland crossings and any disturbance to the wetlands, the HCA would require that disturbed areas be re-seeded with native wetland species. These wetland areas are small and reseeded from the native seed bank will be limited. Again, straw bales should not be used as an esc measure.*

Appendix B of the permit application includes concordance of the ER comments to the permit application content.

The Reclamation Plan will be submitted to the HCA in an application update.

The use of straw bales as an erosion and sediment control measure has been removed from the potential mitigation measures and will not be included in the ESC Plan (Appendix E).

If you would like to discuss any of the above comments further, or have any other questions please do not hesitate to contact me.

Yours truly,



Jessie Malone
Environmental and Regulatory Lead
587.476.4799
jessie.m.malone@esso.ca

cc: Nicole Bishop, Project Manager, ERM

OEB-4: OPCC Review Comments on the Draft Environmental Report

Date	Participants	Activity	Description	Response Date	Response	Supporting Document(s)
2/01/2019	DFO	Email from ERM, on behalf of Imperial, to DFO	Email of Draft Environmental Report to federal agencies (DFO and TC).	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from DFO on the Draft Environmental Report.	
2/01/2019	TC	Email from ERM, on behalf of Imperial, to TC	Email of Draft Environmental Report to federal agencies (DFO and TC).	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from TC on the Draft Environmental Report.	
2/01/2019	CH	Email from ERM, on behalf of Imperial, to Conservation Halton	Email of Draft Environmental Report to conservation authorities.	2/01/2019	N/A – outgoing correspondence, no response required.	
3/19/2019	CH	Letter from Conservation Halton	Letter from Conservation Halton on Draft Environmental Report. Comments provided included topics related to valley slope stability and stream erosion, source water protection, physiography and geology, dewatering and groundwater, surface water, vegetation and wetlands, wildlife, fish and fish habitat, species at risk and water management planning.	7/05/2019	On July 5 ,2019, Imperial submitted to Conservation Halton the <i>Permit Application for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Pursuant to Ontario Regulation 162/06, as amended)</i> providing permitting level details, including the requested engineering design drawings, a Channel and Bank Erosion Assessment, and Erosion and Sediment Control Plan. The permit application Appendix B included Imperial's responses to Conservation Halton's March 19, 2019 comments on the Draft Environmental Report.	190705 Imperial Waterdown to Finch_Response to CH ER Comments_20190705.pdf
2/01/2019	CVC	Email from ERM, on behalf of Imperial, to Credit Valley Conservation	Email of Draft Environmental Report to conservation authorities.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from CVC with respect to the Environmental Report. Nevertheless, Imperial has ongoing permitting discussions with CVC through emails, phone calls and meetings. On July 5 ,2019, Imperial submitted to Credit Valley Conservation Authority the <i>Permit Application for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Pursuant to Ontario Regulation 160/06, as amended)</i> providing permitting level details, including the requested engineering design drawings, a Channel and Bank Erosion Assessment, and Erosion and Sediment Control Plan.	
2/01/2019	HCA	Email from ERM, on behalf of Imperial, to Hamilton Conservation Authority	Email of Draft Environmental Report to conservation authorities.	2/01/2019	N/A – outgoing correspondence, no response required.	
3/01/2019	HCA	Letter from Hamilton Conservation Authority	Letter from Hamilton Conservation Authority on Draft Environmental Report.	7/05/2019	On July 5, 2019, Imperial submitted to Hamilton Conservation Authority the <i>Permit Application for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Pursuant to Ontario Regulation 161/06, as amended)</i> providing permitting level details, including the requested engineering design drawings, a Channel and Bank Erosion Assessment, and Erosion and Sediment Control Plan. The permit application Appendix B included Imperial's responses to Hamilton Conservation Authority's March 1, 2019 comments on the Draft Environmental Report.	190705 Imperial Waterdown to Finch_Response to HCA ER Comments_20190705.pdf
2/01/2019	NEC	Email from ERM, on behalf of Imperial, to Niagara Escarpment Commission	Email of Draft Environmental Report to Niagara Escarpment Commission.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from NEC with respect to the Draft Environmental Report. Nevertheless, Imperial has ongoing permitting discussions with NEC through emails, phone calls and meetings.	

Date	Participants	Activity	Description	Response Date	Response	Supporting Document(s)
2/01/2019	TRCA	Email from ERM, on behalf of Imperial, to Toronto and Region Conservation Authority	Email of Draft Environmental Report to conservation authorities.	2/01/2019	N/A – outgoing correspondence, no response required.	
3/08/2019	TRCA	Letter from Toronto Region and Conservation Authority	Letter from Toronto and Region Conservation Authority on Draft Environmental Report.	7/05/2019	On July 5, 2019, Imperial submitted to Toronto and Region Conservation Authority the <i>Permit Application for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Pursuant to Ontario Regulation 166/06, as amended)</i> providing permitting level details, including the requested engineering design drawings, a Channel and Bank Erosion Assessment, and Erosion and Sediment Control Plan. The permit application Appendix B included Imperial's responses to Toronto Region and Conservation Authority's March 8, 2019 comments on the draft Environmental Report.	190705 Imperial Waterdown to Finch_Reponse to TRCA ER comments_20190705.pdf
2/01/2019	City of Burlington	Email from ERM, on behalf of Imperial, City of Burlington	Email of Draft Environmental Report to municipalities and regions.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from City of Burlington on the Draft Environmental Report.	
2/01/2019	City of Hamilton	Email from ERM, on behalf of Imperial, City of Hamilton	Email of Draft Environmental Report to municipalities and regions.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from City of Hamilton on the Draft Environmental Report.	
2/01/2019	City of Mississauga	Email from ERM, on behalf of Imperial, City of Mississauga	Email of Draft Environmental Report to municipalities and regions.	2/01/2019	N/A – outgoing correspondence, no response required.	
4/03/2019	City of Mississauga	Letter from City of Mississauga	Letter from the City of Mississauga on the Draft Environmental Report from Transportation Works, MiWay, Heritage Planning and Parks and Forestry. Comments provided included topics related to spill prevention and response, dewatering during construction, Imperial's communications approach, contaminated material management and handling, pipeline monitoring, erosion and sediment control, water management planning, submission of crossing drawings, heritage planning, information on tree removal, information on proposed construction on City owned parks, and coordinate construction timing with several City Off-Road Trail design plans.	5/03/2019	Letter of May 3, 2019 from Imperial responding to City of Mississauga comments on the Draft Environmental Report attached as supporting documentation.	190503 City_of_Mississauga_ER_revie w_responses_Final_draft_CET.pdf
2/01/2019	Region of Halton	Email from ERM, on behalf of Imperial, Region of Halton	Email of Draft Environmental Report to municipalities and regions.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Region of Halton on the Draft Environmental Report.	
2/01/2019	Region of Peel	Email from ERM, on behalf of Imperial, Region of Peel	Email of Draft Environmental Report to municipalities and regions.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Region of Peel on the Draft Environmental Report.	
2/01/2019	Town of Milton	Email from ERM, on behalf of Imperial, Town of Milton	Email of Draft Environmental Report to municipalities and regions.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Town of Milton on the Draft Environmental Report.	
2/01/2019	Town of Oakville	Email from ERM, on behalf of Imperial, Town of Oakville	Email of Draft Environmental Report to municipalities and regions.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Town of Oakville on the Draft Environmental Report.	

Date	Participants	Activity	Description	Response Date	Response	Supporting Document(s)
2/01/2019	IO	Email from ERM, on behalf of Imperial, to IO	Email of Draft Environmental Report to Ontario Pipeline Coordinating Committee.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Infrastructure Ontario on the Draft Environmental Report.	
2/01/2019	MAH	Email from ERM, on behalf of Imperial, to MAH	Email of Draft Environmental Report to Ontario Pipeline Coordinating Committee.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Ministry of Municipal Affairs and Housing on the Draft Environmental Report.	
2/01/2019	MECP	Email from ERM, on behalf of Imperial, to MECP	Email of Draft Environmental Report to Ontario Pipeline Coordinating Committee.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Ministry of Environment, Conservation and Parks on the Draft Environmental Report.	
2/01/2019	MEDJCT	Email from ERM, on behalf of Imperial, to MEDJCT	Email of Draft Environmental Report to Ontario Pipeline Coordinating Committee.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Ministry of Economic Development, Job Creation and Trade on the Draft Environmental Report.	
2/01/2019	MENDM	Email from ERM, on behalf of Imperial, to MENDM	Email of Draft Environmental Report to Ontario Pipeline Coordinating Committee.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Ministry of Energy, Northern Development and Mines on the Draft Environmental Report.	
2/01/2019	MNRF	Email from ERM, on behalf of Imperial, to MNRF	Email of Draft Environmental Report to Ontario Pipeline Coordinating Committee.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Ministry of Natural Resources and Forestry on the Draft Environmental Report.	
2/01/2019	MTCS	Email from ERM, on behalf of Imperial, to MTCS	Email of Draft Environmental Report to Ontario Pipeline Coordinating Committee.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Ministry of Tourism, Culture and Sport on the Draft Environmental Report.	
2/01/2019	MTO	Email from ERM, on behalf of Imperial, to MTO	Email of Draft Environmental Report to Ontario Pipeline Coordinating Committee.	2/27/2019	Email from MTO to Imperial noting that MTO does not have any concerns with the Draft Environmental Report as long as the Imperial follows all applicable environmental legislation and obtains permits, where required. MTO should be informed of any work within its right-of-way to ensure work does not impact MTO projects. On February 27, 2019, Imperial provided an email response acknowledging MTO's comment and will continue the ongoing engagement with MTO throughout the process.	190227 Email MTO to ERM.pdf
2/01/2019	OEB	Email from ERM, on behalf of Imperial, to OEB	Email of Draft Environmental Report to Ontario Pipeline Coordinating Committee.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Ontario Energy Board staff on the Draft Environmental Report.	
2/01/2019	OMAFRA	Email from ERM, on behalf of Imperial, to OMAFRA	Email of Draft Environmental Report to Ontario Pipeline Coordinating Committee.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Ministry of Agriculture, Food, and Rural Affairs on the Draft Environmental Report.	
2/01/2019	TSSA	Email from ERM, on behalf of Imperial, to TSSA	Email of Draft Environmental Report to Ontario Pipeline Coordinating Committee.	2/01/2019	N/A – outgoing correspondence, no response required. No specific comments received from Technical Standards and Safety Authority on the Draft Environmental Report.	

Date	Participants	Activity	Description	Response Date	Response	Supporting Document(s)
2/04/2019	HCCC/HDI	Email from ERM to HCCC/HDI	Email to HCCC/HDI to transmit the Draft Environmental Report. A hardcopy of the Draft Environmental Report was also delivered to HCCC/HDI.	2/11/2019	<p>Follow-up from Imperial to ensure the draft was received, and to offer funding for the draft review. The hardcopy was received on February 14, 2019.</p> <p>No specific comments received from HCCC/HDI on the Draft Environmental Report.</p>	
2/04/2019	HWN	Email from ERM to HWN	Email to Huron-Wendat Nation to transmit the Draft Environmental Report. A hardcopy of the Draft Environmental Report was also delivered to HWN by courier.	2/28/2019	<p>Letter from Huron-Wendat Nation confirming completion of Huron-Wendat's review of the Environmental Report. Huron-Wendat Nation noted that it agreed with the report content.</p> <p>The Huron-Wendat Nation however, insisted that archaeological studies are not complete and reiterated the importance of ongoing involvement in archaeological fieldwork.</p> <p>Huron-Wendat Nation also acknowledged that the relationship between Imperial and the Huron-Wendat Nation has evolved positively. The Huron-Wendat Nation letter of February 28, 2018 is included as supporting documentation.</p> <p>Imperial acknowledges the comment and continues the ongoing work in collaboration with Huron-Wendat Nation in the archaeological assessment and through the process.</p>	190228 HWN letter on ER.pdf
2/04/2019	MCFN	Email from ERM to MCFN	Email to MCFN to transmit the Draft Environmental Report. A hardcopy of the Draft Environmental Report was also delivered to MCFN.	2/08/2019	<p>Follow-up from Imperial to ensure the draft was received, and to offer funding for the draft review. The hardcopy was received on February 14, 2019.</p>	
2/13/2019	MCFN	Email from MCFN to Imperial	<p>Email from MCFN with questions on the Draft Environmental Report.</p> <ul style="list-style-type: none"> ■ Inquiry if pipeline alternative routes were compared. ■ Inquiry on how cumulative impacts to Species at Risk (SAR) be mitigated. ■ Inquiry if source water plans (SPP) were used in the assessment ■ Inquiry on how the Credit River Valley Project and the Sarnia Products Pipeline will accommodate the Metrolinx LRT infrastructure. ■ Inquiry if opportunities for traditional harvesting is required. ■ Request to review the Environmental Protection Plan and Environmental Management Plan. 	2/26/2019	<p>Imperial replied to MCFN's questions on the Draft Environmental Report.</p> <p>Imperial explained that alternative routes were evaluated in the Environmental Report (refer to Environmental Report Section 2.6). Because the Project will be sited within an existing Imperial easement from Kilometer Post (KP) 0 to KP 18.8, an alternative route was considered within the urban area from KP 18.8 to KP 62.5 (refer to Environmental Report Figure 2.6-1).</p> <p>Imperial explained that cumulative effects on Species at Risk (SAR) will largely be avoided by:</p> <ul style="list-style-type: none"> ■ routing the pipeline through existing right-of-way (i.e., Imperial's existing pipeline easement and within the HONI corridor. ■ installing the pipeline using trenchless methods (e.g., Horizontal Directional Drilling) through SAR regulated habitat where possible; ■ timing construction within SAR regulated habitat outside of restricted activity periods, where possible;. <p>Imperial explained that for more details, refer to Environmental Report Table 5.3-5 for Imperial's mitigation commitments to avoid or reduce effects on SAR.</p> <p>Imperial confirmed that source water protection plans (SPP) were considered in Environmental Report Section 4.2.3, Section 5.2.3 and Appendix D.</p> <p>Imperial clarified the Credit Valley River Project schedule and how the Sarnia Products Pipeline has accommodated LRT infrastructure. Imperial explained that construction of Imperial's Credit River Valley Project began in spring 2019 and completion is anticipated in the fall of 2019. Due to the timing of this project, it was subject to separate regulatory review and approval. The project has received a new easement and a temporary land use agreement from Infrastructure Ontario, a work permit from the Credit Valley Conservation Authority, a park access permit from the City of</p>	

Date	Participants	Activity	Description	Response Date	Response	Supporting Document(s)
					<p>Mississauga and archaeology approval from the Ministry of Tourism, Culture and Sport.</p> <p>The Metrolinx Finch West LRT project is currently being completed. In order to accommodate the LRT project, Imperial was required to re-align the segment of the Sarnia Products Pipeline which crosses the LRT. Imperial obtained a licence for temporary land use on lands owned by Infrastructure Ontario and managed by Hydro One Networks Inc. in order to support this work.</p> <p>Imperial explained that it is open to discussing opportunities for traditional harvesting and identifying how Imperial can support MCFN in facilitating opportunities to discuss traditional land and resource use.</p> <p>Imperial explained that, once prepared, Imperial can provide MCFN with the Environmental Protection Plan and Environmental Management Plans to be implemented during construction. These will be prepared and available for review prior to construction.</p>	
2/04/2019	Six Nations	Email from ERM to Six Nations	Email to Six Nations to transmit the Draft Environmental Report and information regarding feedback mechanism. A hardcopy of the Draft Environmental Report was also delivered to Six Nations.	2/11/2019	<p>Follow-up from Imperial to ensure the draft was received, and to offer funding for the draft review. The hardcopy was received on February 14, 2019.</p> <p>No specific comments received from Six Nations on the Draft Environmental Report.</p>	

APPENDIX 13 GRANT OF EASEMENT PIPELINE (ONTARIO) AGREEMENT

«Tract_No»

**GRANT OF EASEMENT
PIPELINE
(Ontario)**

This grant of easement agreement is dated as of «Date_of_Agreement».

BETWEEN:

«REGISTERED_OWNER_NAME_CORPORATE»

(“Transferor”)

- and -

IMPERIAL OIL LIMITED

(“Transferee”)

RECITALS:

- A. The Transferor is the registered and beneficial owner of an estate in fee simple subject, however, to such encumbrances, liens and interests as are at the date hereof set forth in the existing parcel register of those lands and premises legally described on Schedule A attached hereto (the “**Lands**”).
- B. The Transferor has agreed to grant an easement to the Transferee on and subject to the terms and conditions set forth in this agreement.

In consideration of the sum of One Dollar (\$1.00) paid by the Transferee to the Transferor, the receipt and sufficiency of which is hereby acknowledged by the Transferor, and of the mutual covenants and terms and conditions contained in this agreement, the parties therefore agree as follows:

Grant of Rights

1. (a) The Transferee shall pay to the Transferor the sum of _____ dollars (\$), for the rights granted herein.
- (b) The Transferee hereby represents and warrants to the Transferor that:
- (i) Transferee shall be purchasing the Easement as principal for its own account and not as an agent, trustee or otherwise on behalf of another person;
 - (ii) Transferee is registered under subdivision d of Division V of Part IX of the Excise Tax Act (Canada) (the “HST Act”) for the purposes of collection and remittance of HST;

- (iii) Transferee shall be liable, shall self-assess and remit to the appropriate Governmental Authority all HST which is payable under the HST Act in connection with the transfer of the Easement made pursuant to this Agreement, all in accordance with the HST Act;
- (iv) Transferor shall not collect HST on Closing regarding the Easement and shall allow Transferee to self-assess and remit HST to the Receiver General in accordance with the HST Act.

Transferee shall indemnify and save harmless the Transferor from and against any and all HST, penalties, costs and/or interest which may become payable by or assessed against the Transferor as a result of any inaccuracy, misstatement or misrepresentation made by Transferee in connection with any matter raised in this Section.

2. Transferor does hereby grant, convey and transfer unto the Transferee in perpetuity:

- (a) the exclusive right, licence, liberty, privilege, easement and right-of-way on, over, upon, across, along, in, under and through that part of the Lands described in or as shown on Schedule B attached hereto (“**Easement**”), together with the right Licence, privilege and easement of ingress and egress over the remainder of the Lands, to and from the Easement, to sample soil, survey lands and to lay down, construct, operate, maintain, inspect, patrol (including aerial patrol), alter, relocate, remove, replace, reconstruct and repair one or more line(s) of pipe together with all facilities, appurtenances or works of the Transferee useful in connection with or incidental to its undertaking, including, but without limiting the generality of the foregoing, all such pipes, drips, valves, fittings, connections, meters, markers, corrosion control equipment, cathodic protection equipment and other equipment and appurtenances, whether or not similar to the foregoing, as may be useful or convenient in connection therewith or incidental thereto for the carriage, transmission, conveyance, transportation and handling of oil, diluent, refined products, natural and artificial gas and other gaseous or liquid hydrocarbons and any product or by-product thereof (such line of pipe together with such related facilities or works being referred to, collectively, as “**Pipeline**”);
- (b) the full and free right, licence, liberty, privilege and easement of ingress and egress at any and all times over, along, across and upon the Easement; and
- (c) the right at any time and from time to time to remove any boulder or rock and to sever, fell, remove or control the growth of any roots, trees, stumps, brush or other vegetation in, on, above, or under the Easement Lands.

(the rights, licences, liberties, privileges, easements and Easement specifically described in subclauses (a), (b), and (c) above, as hereafter supplemented, being referred to, collectively, as “**Easement Rights**”).

3. The Easement Rights extend to the Transferee and its directors, officers, agents, employees, contractors, subcontractors and invitees. The Transferee may exercise the Easement Rights on foot and/or with vehicles, together with materials, machinery and equipment for all purposes useful or convenient in connection with or incidental to the

exercise and enjoyment of the Easement Rights as and from the date hereof upon the terms and subject to the conditions hereinafter set forth.

Above Ground Works and Access Easement

4. The Transferee shall, at any time, have the right to locate any part or parts of the Pipeline above ground (in each case, “**Aboveground Works**”) and to fence and use such portions of the Easement as are, in its opinion, required for the Aboveground Works. Upon request of the Transferee in respect of each of the Aboveground Works, the Transferor hereby grants, conveys and transfers unto the Transferee, for itself, its directors, officers, agents, employees, contractors, subcontractors and invitees, the full and free right, licence, liberty, privilege, easement and right-of-way to clear and to use a portion of the Lands, as may be reasonably required by the Transferee and for as long as may be required by the Transferee for convenient access on foot and/or with vehicles, together with materials, machinery and equipment, within and across the Lands to the Aboveground Works (“**Access Easement**”). The Transferee shall:
 - (a) consult with the Transferor as to the location of any Aboveground Works and any required Access Easement to minimize, so far as may be practicable, any inconvenience to the Transferor and to the extent practicable each such Access Easement shall encompass existing roads, trails and gates located within the Lands;
 - (b) furnish to the Transferor a drawing showing the location of any Aboveground Works and any required Access Easement; and
 - (c) by separate agreement(s), pay compensation to the Transferor for the loss of use by the Transferor of such portions of the Easement fenced and used for the Aboveground Works and for any nuisance, noise, inconvenience and interference that might arise or be caused to the Transferor’s use of the Lands by the Aboveground Works and Access Easement.
5. The Transferor shall not, without the prior written consent of the Transferee, block, impede or restrict the Transferee’s use of the Access Easement and shall obtain the Transferee’s prior written consent should the Transferor wish to relocate the Access Easement on the Lands.

Transferee’s Obligations

6. Subject to clause 8 of this agreement, the Transferee shall, as soon as weather and soil conditions permit and insofar as it is practicable to do so, bury those portions of the Pipeline that are designed to be underground so as not to unreasonably obstruct the natural surface runoff from the Easement or ordinary cultivation of the Easement.
7. In connection with the construction of the Pipeline, the Transferee shall, insofar as may be practicable to do so by employing good industry practices and in accordance with the legislation and regulations in force at the time, separate and save excavated topsoil from the Easement and thereafter restore it thereon.
8. As soon as reasonably practicable after the construction of the Pipeline, the Transferee, unless otherwise agreed to by the Transferor, shall remove all construction debris from the

Easement and in all respects restore the Easement to a condition similar to the surrounding environment and consistent with the current use of the Lands as far as is reasonable and practicable and in accordance with the legislation and regulations in force at the time of such restoration, save and except for: (a) items in respect of which compensation is due under clause 15; and (b) any soil rise above grade to allow for soil settling.

9. The Transferee's use of the Lands shall be restricted to uses in connection with the Pipeline unless the Transferor provides written consent to any proposed additional use at the time of the proposed additional use.

Use of Easement by Transferor

10. Excluding any portion of the Easement that is fenced as contemplated herein, the Transferor shall have the right to use and enjoy the Easement, including the right to cross the buried portion of the Pipeline with farming vehicles as necessary in connection with ordinary farming practices, all in accordance with the provisions of the applicable legislation and any regulations, orders or guidelines made thereunder. Notwithstanding the foregoing, the Transferor shall not, without the prior written consent of the Transferee:
 - (a) excavate, construct, drill, install, erect or permit to be excavated, constructed, drilled, installed or erected on, over or under any part of the Easement any pipe, pit, well, foundation, building or other structure, installation or improvement, or do or permit to be done any mining, quarrying, land levelling, landscaping or other work or activity of any like or similar nature on, in or under the Easement;
 - (b) alter the grade of the Easement;
 - (c) add any paving or other material to the Easement;
 - (d) use the Easement for any other purpose which could compromise the integrity of the Pipeline; or
 - (e) take any action which restricts or limits the exercise by the Transferee of any of the Easement Rights.
11. Subject to clause 10, where the Transferor notifies the Transferee in writing that the Transferor wishes to make a non-recurring agricultural improvement which can be practically made to the Lands, the Transferee agrees to reimburse the Transferor for the reasonable additional costs of making such improvement that are a direct result of the existence of the Pipeline. If the Transferee and the Transferor fail to agree within ninety (90) days of such a notification as to the practicality of making the proposed improvement or the amount by which the cost of making such an improvement is increased as a direct result of the existence of the Pipeline, then the Transferor or the Transferee may proceed to negotiation or arbitration in accordance with the provisions of the *Ontario Energy Board Act, 1998* (the "Act").

Ownership of Pipeline

12. Notwithstanding any rule of law or equity, the Pipeline shall, until surrendered, at all times remain the property of the Transferee notwithstanding that it may be annexed or affixed to the Lands.

Abandonment

13. The Transferee may, at any time, abandon the Pipeline by either leaving the Pipeline in place or removing it at the Transferee's option subject to and in accordance with the legislation and regulations in force at the time of such abandonment.

Damages

14. The Transferee shall compensate the Transferor for all direct damages (but not indirect or consequential damages) suffered as a result of the operations, Pipelines or abandoned Pipelines of the Transferee including all damage done to any drainage system, crops, pasture, timber, trees, hedges, produce, water wells, artesian springs, livestock, buildings, fences, culverts, bridges, lanes, improvements or equipment on the Lands.

Indemnification

15. The Transferee shall indemnify the Transferor from all liabilities, damages, claims, suits and actions arising out of the operations, Pipelines or abandoned Pipelines of the Transferee other than any liabilities, damages, claims, suits or actions resulting from the negligence or wilful misconduct of the Transferor.

Discharge of Encumbrances

16. If this agreement has been registered, then upon termination of this agreement the Transferee shall register in the appropriate Land Titles Office such documents as may be necessary to remove such registration from title to the Lands.

Nothing Prejudicing Transferee's Rights

17. Nothing herein shall affect or prejudice any right, present or future, that the Transferee may have to acquire, occupy or use the Easement or any other portions of the remaining Lands under the provisions of the Act or otherwise.

Quiet Enjoyment

18. The Transferee, in performing and observing the covenants and conditions on its part to be observed and performed herein, shall and may peaceably hold and enjoy all the rights granted to it hereunder without hindrance, molestation or interruption on the part of the Transferor or of any person claiming by, through, under or in trust for, the Transferor.

Binding Effect

19. If it appears that at the date this agreement is entered into, the Transferor is not the sole owner of the Lands, this agreement shall nevertheless bind the Transferor to the full extent of the Transferor's interest herein, and if the Transferor shall later acquire a greater or the entire interest in the Lands this agreement shall likewise extend to such after-acquired interest.

Representations and Warranties

20. The Transferor represents and warrants that it is the legal and beneficial owner in fee simple of the Lands, it has the legal right and authority to convey all of the rights granted hereunder free from all encumbrances, that it has done no act to encumber the Easement and the Easement Rights and that it has not granted any other rights to any third party, and the

Transferor is not otherwise aware of any other rights, that would conflict with the rights granted hereunder. The Transferor will not grant an option, easement, lease or any other property rights related to the Lands to any other person that would interfere with the rights granted to the Transferee, save and except for any easements, rights-of-way, restrictions or any other property rights granted prior to the date hereof.

21. The Transferor represents that the Transferor is not a non-resident of Canada within the meaning of the *Income Tax Act* (Canada) and that if the Transferor's status for income tax purposes changes, the Transferor will promptly notify the Transferee in writing.

22. The Transferor represents and warrants to the Transferee that the Transferor is:

[NTD – to be completed as appropriate. For an individual, use (a1) PLUS one of (b1), (b2) OR (b3); if a corporation, use (a2 or (a3)]

[(a1) at least eighteen (18) years of age; and

(b1) not a spouse within the meaning of the *Family Law Act*, R.S.O. 1990, c.F.3, as amended (herein, a "Spouse").

(b2) a Spouse and all or some portion of the Easement Land has been occupied as a family residence or matrimonial home within the meaning of the *Family Law Act*, R.S.O. 1990, c.F-3, as amended (herein, a "Matrimonial Home"), in which case this agreement has been executed by both Spouses together comprising the Transferor or consented to in writing by the Transferor's Spouse as is evidenced by the signature of such Spouse on the Consent attached hereto as Schedule C.

(b3) a Spouse, but no portion of the Easement Land has been occupied as a Matrimonial Home.

(a2) a corporation, and all or some portion of the Easement Land has been occupied by an officer, director or shareholder of such corporation or by any of their Spouses as a Matrimonial Home, in which case this agreement has been executed by both Spouses together as is evidenced by the signature of such Spouse on the Consent attached hereto as Schedule C.

(a3) a corporation, but no portion of the Easement Land has been occupied by any officer, director or shareholder of the corporation or by any of their Spouses as a Matrimonial Home.]

Payment of Outstanding Amounts

23. Notwithstanding any other provision in this agreement, if the Transferee determines that:

(a) there are outstanding charges, taxes, construction liens, writs of enforcement, judgments or other encumbrances which are registered against the Lands; or

(b) there are any overdue amounts outstanding under any agreement for sale, mortgage or other financial encumbrance that is registered against the Lands,

the Transferee may, but is not obligated to, pay all or a portion of the compensation or other amounts payable under this agreement to the holder of such charge, lien, writ of enforcement, judgment, mortgage or other financial encumbrance, or to such vendor or mortgagee to satisfy and discharge such encumbrance or to obtain a postponement from the holder of such charge, lien, writ of enforcement, judgement, mortgage or other financial encumbrance. The payment of any amount to such third party shall be deemed to be payment of such amount to the Transferor. For greater certainty, the Transferee shall not be required to obtain the Transferor's consent prior to making such payment. The Transferee shall provide to the Transferor written confirmation of any such payments within thirty (30) days of making such payments.

Notices

24. All notices or payments required or permitted to be given under or in connection with this agreement shall be in writing and shall be personally delivered, delivered by courier, mailed by registered mail, faxed or sent by electronic transmission to the party to whom the notice is to be given and, when mailed, any such notice shall be deemed to be given to, and received by, the addressee seven (7) days (Saturdays, Sundays and statutory holidays in the province of Ontario excluded) after the mailing thereof.
25. Unless changed by notice, the addresses of the parties shall be:

Transferor:

«Registered_Owner_Name_Corporate»
«Registered_Owner_Address_1_Street_Nam
»
«Registered_Owner_Address_2_Suite_»
«Registered_Owner_Address_3_City_ON__
Po»

Fax No.: _____

Transferee:

Imperial Oil Limited
c/o Imperial Oil Resources Limited
Surface Land Manager
505 Quarry Park Blvd SE
Calgary, AB T2C 5N1

Fax No.: ●

Email: ●

General

26. If any provision of this agreement is invalid under any applicable statute or is declared invalid by a court of competent jurisdiction, then it shall be deemed to be severed from this agreement provided, however, that the remainder of this agreement shall continue in full force and effect.
27. This agreement may be assigned by the Transferee in whole or in part and as to all or any portion of the rights hereby granted, transferred and conveyed.
28. The Easement Rights and Access Easement are and shall be of the same force and effect to all intents and purposes as covenants running with the land and this agreement, including all the covenants herein, shall extend to, be binding upon and enure to the benefit of the heirs, executors, administrators, successors-in-title, successors and assigns of the parties respectively.

29. Wherever the singular or masculine is used, it shall be construed as if the plural or the feminine or the neuter, as the case may be, had been used, where the context of the party or parties so require, and this agreement shall be construed as if the grammatical and terminological changes thereby rendered necessary had been made.
30. The Transferor consents to the collection, use and disclosure of the Transferor's personal information as described within this agreement as long as the agreement is in force or as required by law. The Transferee collects, uses and discloses the personal information for land rights acquisition and regulatory disclosure as described in this agreement, in accordance with industry practice and as required by law. The Transferee collects, uses, discloses and maintains personal information in accordance with the *Personal Information Protection and Electronic Documents Act* and the Transferee's personal information policy.
31. The Transferor will, from time to time, execute such further assurances of the rights granted herein as may be required by the Transferee. Without limiting the foregoing, the Transferor hereby agrees from time to time to execute and deliver all such additional documents, instruments and agreements and to take all such additional steps and actions as may be reasonably required to fully implement the terms of this agreement and as may be required to register and perfect the Transferee's interest in the Lands.
32. This agreement and the schedules attached set forth the entire agreement and understanding between the parties as to the subject matter contained herein, and the Transferor agrees that there are no representations, warranties, agreements, terms or conditions affecting this agreement other than as contained herein.
33. The Easement Rights herein granted are declared, agreed and acknowledged to be appurtenant to and run with the Transferee's refinery located in the City of Sarnia, Ontario and the Transferee's refinery located in Nanticoke, Ontario, and the pipe line system, pumping stations, bulk plant terminals and other corporeal hereditaments serving such refinery and to each separately as well as collectively.
34. This agreement may be executed and delivered in counterparts and by facsimile or electronic (pdf) transmission and electronic signatures shall be deemed original signatures. When all counterpart documents are executed and delivered, the counterparts shall be deemed to be an original, and shall constitute a single binding instrument. This Agreement shall not be binding upon either party until it has been executed and delivered by both parties.
35. This agreement shall be governed by and construed in accordance with the laws in force in the province of Ontario and the federal laws of Canada applicable therein.

[Signature Page Follows]

The parties are executing this agreement with effect on the date stated in the introductory clause.

**[IF TRANSFEROR IS AN
INDIVIDUAL]
SIGNED, SEALED & DELIVERED
In the presence of:**

Witness

**Name:
Address:**

Name: «Transferor»]

TRANSFEROR:

**[IF TRANSFEROR IS A COMPANY:
«REGISTERED_OWNER_NAME
CORPORATE»**

Per: _____
Print Name:
Position Title:

Per: _____
Print Name:
Position Title:
I/We have authority to bind the corporation]

TRANSFeree:

IMPERIAL OIL LIMITED

Per: _____
Print Name:
Position Title:

Per: _____
Print Name:
Position Title:

I/We have authority to bind the corporation

SCHEDULE "A"

LEGAL DESCRIPTION OF LANDS

PIN «PIN»

«Legal_Description_of_Easement_Lands»

SCHEDULE "B"

LEGAL DESCRIPTION OF EASEMENT

PIN «PIN»

«Legal_Description_of_Easement_Lands»

SCHEDULE "C"

CONSENT OF SPOUSE

I, _____, being the spouse of _____
_____, do hereby give my consent to the grant of the Easement over and in respect of the Land.

DATED this _____ day of _____, 2019.

WITNESS:

SPOUSE OF OWNER

Name:
Address:

Name:
Address:

APPENDIX 14 TEMPORARY WORKSPACE LEASE AGREEMENT

File: «File»

TEMPORARY WORKSPACE LEASE

THIS LEASE made this _____ day of _____ A.D., 20_____(the "**Effective Date**")

BETWEEN:

«**Lessor**»

(hereinafter called the "**Landlord**");

- AND -

IMPERIAL OIL, an Alberta partnership,
having its Head Office at the City of Calgary, in the Province of Alberta,
(hereinafter called the "**Tenant**")

RECITALS:

A. The Landlord is the registered owner (or is entitled to become registered as owner under an agreement for sale or unregistered transfer or otherwise) of an estate in fee simple, in the Province of Ontario and legally described on Schedule A attached hereto (the "**Lands**").

B. The Tenant has been granted an easement over, adjacent to or in the vicinity of, the Lands (the "**Easement**") for the purpose of a pipeline (the "**Pipeline**").

C. The Landlord has agreed to lease certain portions of the Lands to the Tenant for the purposes and upon the terms and conditions hereinafter set forth.

NOW THEREFORE THIS AGREEMENT WITNESSES:

THE LANDLORD DOES HEREBY LEASE, at the rental hereinafter set forth, to the Tenant all and singular those parts or portions of the Lands shown coloured in green on the sketch or plan attached hereto as Schedule B (the "**Leased Premises**"), to be held by the Tenant as tenant for the term of **[five (5)]** years (the "**Term**") commencing on the Possession Date (as hereinafter defined) for the purpose of providing a temporary workspace to the Tenant, its employees, agents and contractors, with respect to the Pipeline, including the right to enter and use the Leased Premises with vehicles, materials, machinery, supplies and equipment, together with the right of ingress and egress over the remainder of the Lands to and from the Leased Premises, and to sample soil, survey lands and to lay down, construct, maintain, inspect, alter, remove, replace, reconstruct and repair one or more line(s) of pipe within the Easement, together with the right at any time and from time to time during the Term to remove any boulder or rock and to sever, fell, remove or control the growth of any roots, trees, stumps, brush or other vegetation in, on, above, or under the Lands, and the right to remove buildings or other improvements from the Leased Premises and to install temporary gates and fences and stockpiling of construction spoil, materials and equipment as required by the Tenant. During the Term, the Landlord shall not use the Lands for any purpose that would interfere with or detrimentally affect the Tenant's use of the Leased Premises.

YIELDING AND PAYING unto the Landlord rent in the amount, and payable at the times, set out in Schedule C plus applicable taxes.

THE LANDLORD AND THE TENANT HEREBY MUTUALLY COVENANT AND AGREE AS FOLLOWS:

1. POSSESSION DATE:

The Tenant shall notify the Landlord in writing at least thirty (30) days prior to the date upon which the Tenant shall require occupancy of the Leased Premises (the "**Possession Date**").

2. TAXES PAID BY LANDLORD:

That the Landlord will promptly pay and satisfy all taxes, rates and assessments that may be assessed or levied against the Lands, including the Leased Premises during the Term.

3. QUIET ENJOYMENT:

That the Landlord warrants that it has good right and full power to grant and lease the Lands, rights and privileges in the manner aforesaid, and that the Tenant, upon observing and performing the covenants and conditions on the Tenant's part herein contained, shall and may peaceably possess and enjoy the Leased Premises and the rights and privileges hereby granted during the said term and any extension thereof without any interruption or disturbance from or by the Landlord or any other persons claiming by, through or under the Landlord.

4. RENEWAL:

Provided the Tenant is not then in default in respect of any of the covenants and conditions contained in this Lease beyond any applicable notice and cure period, the Tenant shall have the right to extend the Term year to year, not to exceed an additional [two (2)] years in the aggregate (each such year an "**Extended Term**") upon providing written notice at least ninety (90) days prior to the expiry of the Term and any Extended Term. Such Extended Term shall be subject to all the provisions hereof save and except for the payment of rent, which rent for the Extended Term shall be as set out in Schedule C.

5. INDEMNIFICATION:

The Tenant shall indemnify and save harmless the Landlord from and against any and all claims and demands brought against the Landlord by other persons resulting from the Tenant's negligence and misconduct during the Tenant's use and occupation of the Leased Premises, save and except to the extent caused by the Landlord's negligence or misconduct.

6. ABANDONMENT AND RESTORATION:

The Tenant shall, upon the termination of the use and occupation of the whole or any portion of the Leased Premises and the surrender of the whole or any part of the rights herein granted, restore and deliver up to the Landlord the Leased Premises or any portion thereof in a condition as close as practicable to the condition of the Leased Premises or said portion thereof, as the same existed immediately prior to the entry by the Tenant and as required by applicable laws; PROVIDED that where the Leased Premises or any portion thereof was treed prior to entry or was otherwise in a natural uncultivated state, the Tenant, at its option, may return the Leased Premises or such portion thereof to the Landlord in a vacant and level-graded state.

7. PARTIAL OR TOTAL SURRENDER OF ACREAGE:

Notwithstanding anything in Section 6, the Tenant may from time to time and at any time surrender all or portion of the Leased Premises upon giving written notice to the Landlord. Such notice may be delivered or mailed to the Landlord and shall be accompanied by a sketch or plan showing outlined in red any portion or portions of the Leased Premises retained by the Tenant. The annual rental as herein stipulated shall, during any Extended Term, be payable only for the retained portion of the Leased Premises, and shall be calculated as a proportion of the aforementioned annual rental based on the ratio that the retained portion bears to the original entire Leased Premises.

8. INCREASE OF LEASED PREMISES:

The Tenant shall have the right, upon written notice to the Landlord (the "**Expansion Notice**"), to increase the size of the Leased Premises if required by the Tenant to carry out its works in connection with the Pipeline, in which event Schedule B will be amended to show such increased area and the Lump Sum Payment of rent in Schedule C shall be increased proportionately and paid on the later of:

- (i). the Possession Date; and
- (ii). ninety (90) days after delivery of the Expansion Notice.

9. COMPENSATION FOR DAMAGES:

The Tenant shall compensate the Landlord for direct damage (but not indirect or consequential damage) done by Tenant's servants and agents which, without restricting the generality thereof, shall include crops, machinery, livestock, fences, buildings, or other improvements of the Landlord upon the Lands other than the Leased Premises.

10. REMOVAL OF EQUIPMENT:

The Tenant shall at all times during the continuance of the Lease have the right to remove or cause to be removed from the Lands all buildings, structures, fixtures, casing in wells, pipelines, material and equipment of whatsoever nature or kind, which Tenant may have placed on or in the Leased Premises or on or in any area to be surrendered.

11. ASSIGNMENT BY TENANT:

Notwithstanding anything herein to the contrary the Tenant may delegate, assign or convey to other persons or corporations, all or any of the powers, rights and interests obtained by or conferred upon the Tenant hereunder to be enjoyed by such person or corporations either singly or jointly with the Tenant, and may enter into all agreements, contracts and writings and do all necessary acts and things to give effect to the provisions of this clause, provided that such persons or corporations must use the Leased Premises for operations similar to the Tenant's operations. If the Tenant assigns its entire right and interest in, to, and under this Lease to another person or corporation ("**Assignee**"), then from and after the date of receipt of written notice of the assignment, the Landlord shall hold Assignee solely responsible and liable with respect to all the terms and conditions of this Lease. By accepting such assignment, Assignee shall assume all the obligations of the Tenant.

12. TOPSOIL AND WEEDS:

The Tenant agrees, unless otherwise requested by the Landlord, to strip, and conserve the topsoil from the Leased Premises having regard to good soil conservation practices and upon completion of its operations to return such topsoil on the Leased Premises to a depth reasonably similar to those conditions existing prior to the commencement of construction. The Tenant shall also take

reasonable steps and exercise reasonable precautions as required to control, inhibit and destroy the growth of noxious weeds on the Leased Premises.

13. FENCING:

The Tenant may, if reasonably required by the Landlord or Tenant, erect a good and substantial fence around any temporary installations and provide a proper livestock guard at any point of entry to the Leased Premises used by it, and the Tenant shall replace or repair any fences which it may have removed or damaged.

14. DEFAULT:

Neither party shall be considered in default in the performance of its obligations under this Lease to the extent that the performance of such obligations or any of them is delayed by circumstances, existing or future, which are beyond the control of the Landlord or the Tenant; FURTHER, the Tenant shall not be considered in default in the performance of any of its obligations under this Lease until the Landlord has by written notice notified the Tenant of such default and the Tenant has failed to remedy such default within thirty (30) days, or such longer period as may be reasonably required provided Tenant has commenced to remedy such default within such thirty (30) day period and continues to act diligently thereafter to cure such default.

15. NOTICES:

All notices or payments required or permitted to be given under or in connection with this agreement shall be in writing and shall be personally delivered, mailed by registered mail, faxed or sent by electronic transmission, courier to the party to whom the notice is to be given and, when mailed, any such notice shall be deemed to be given to, and received by, the addressee ten (10) days (Saturdays, Sundays and statutory holidays in the province of Ontario excluded) after the mailing thereof.

Unless changed by notices the addresses of the parties hereto shall be:

Tenant: Imperial Oil

Imperial Oil Resources Limited
Surface Land Manager
505 Quarry Park Blvd. SE
Calgary, Alberta T2C 5N1
Fax No.:
Email:

Landlord: **«Address»**

16. ENUREMENT:

THESE PRESENTS and everything herein contained shall enure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors-in-title, successors and assigns.

17. ASSUMPTION:

The Landlord covenants and agrees that if it transfers, assigns, charges, leases or otherwise disposes of all or any part of its interest in the Lands (collectively, a “**Transfer**”) to another person (the “**Transferee**”) it will obtain and deliver to the Tenant an assumption agreement in the form of Schedule D, from such Transferee in favour of the Tenant assuming and agreeing to be bound by all of the terms of this Lease as if the Transferee had been an original signatory to this Lease.

18. INVALIDITY:

If any provision of this Lease is invalid under any applicable statute or is declared invalid by a court of competent jurisdiction, then it shall be deemed to be severed from this Lease provided, however, that the remainder of this Lease shall continue in full force and effect.

19. INTERPRETATION:

Wherever the singular or masculine is used, the same shall be construed as meaning the plural or feminine, or a body corporate, where the context or the parties so require.

20. PERSONAL INFORMATION CONSENT:

By providing personal information to the Tenant, the Landlord consents to the Tenant's collection, use, retention and disclosure of that information for any and all purposes and uses as permitted or contemplated under this Agreement and as needed to comply with any legal requirements.

21. NON RESIDENT STATUS:

Each Landlord represents that he or she is not a non-resident of Canada within the meaning of the Income Tax Act (Canada), and that if the Landlord's status for income tax purposes changes, the Landlord will promptly notify the Tenant in writing. Subsequent to such notification, any payment made by or on behalf of the Tenant to the Landlord under this Lease will be made net of any deduction or withholding as required by the Income Tax Act (Canada) or any other applicable law.

22. FURTHER ASSURANCES:

The parties hereto agree to do, make and execute, if necessary, at no further cost or condition to the other except payment of reasonable out-of-pocket costs, such other instruments, plans, documents, authorizations, permitting letters, consents acts, matters and things and take such further action as may reasonably be required by the other party in order to effectively carry out the true intent of this agreement.

23. NOTICE OF LEASE/ACKNOWLEDGEMENT AND DIRECTION:

The Landlord hereby authorizes and directs the Tenant's solicitors or agent or their designees to sign, release and register electronically on behalf of the Landlord, but at the Tenant's expense, a Notice of Lease substantially in the form attached as Schedule E and the Landlord confirms that the Landlord understands that it is a party to and bound by the terms and provisions thereof. The Notice of Lease shall contain only the following provisions: the parties, the Leased Premises, the Term and any options to renew or extend (as applicable). The Tenant will promptly provide a copy of the registered notice to the Landlord and will discharge same promptly upon expiry or termination of the Lease. The Landlord, on its own behalf, may also register notice of this Lease, or a short form thereof, against title to the Leased Premises including only the information noted above.

24. COUNTERPARTS:

This Lease may be executed and delivered in counterparts and by facsimile or electronic (pdf) transmission and electronic signatures shall be deemed original signatures. When all counterpart documents are executed and delivered, the counterparts shall be deemed to be an original, and shall constitute a single binding instrument. The delivery of an unexecuted version of this Lease shall not be construed as an offer to lease and this Lease shall not be binding upon either party until it has been executed and delivered by both parties.

25. GOVERNING LAW:

This agreement shall be governed by and construed in accordance with the laws of the province of Ontario and the federal laws of Canada applicable therein.

26. FAMILY LAW ACT

If the spousal consent at the end of this Agreement has not been executed, the Landlord warrants that no person other than Landlord has rights to any matrimonial home on the Lands under the Family Law Act and that spousal consent is not necessary for the grant of this Lease.

27. EARLY TERMINATION

Notwithstanding any provision herein to the contrary, the Tenant shall have the right to terminate this Lease immediately upon written notice to the Landlord. If such notice of termination is delivered on or before the Possession Date, then the Lump Sum Rent shall no longer be payable. For clarity, the Initial Payment shall be retained by the Landlord notwithstanding any such early termination.

[Signature page follows]

IN WITNESS WHEREOF the Landlord and Tenant have executed and delivered these presents as of the day and year first above written.

[IF LANDLORD IS AN INDIVIDUAL:

SIGNED, SEALED AND DELIVERED

by the Landlord in the presence of:

Name
Address:

_____]
«Lessor»

[IF LANDLORD IS A CORPORATION:

«REGISTERED OWNER»:

Per: _____
Print Name:
Position Title:
I/We have authority to bind the corporation]

IMPERIAL OIL, by its Managing Partner, IMPERIAL OIL LIMITED

Per: _____
Print Name:
Position Title:
I/We have authority to bind the corporation

Per: _____
Print Name:
Position Title:
I/We have authority to bind the corporation

I, being married to Landlord or otherwise having rights to a matrimonial home on the Lands under the Family Law Act, hereby consent to this Lease and agree to execute all additional documents that may be required to give full force and effect to this Lease and to register this Lease or a notice thereof against the Lands.

Witness:

Spouse:

Name:
Address:

«Spouse's Name»

Date

SCHEDULE A
LANDS

[NTD: Insert Legal Description]

Being all of PIN [NTD: Insert PIN]

SCHEDULE B
LEASED PREMISES

See attached

SCHEDULE C

RENT

During the Term, the Tenant shall pay to the Landlord the following amounts as rent, plus HST, provided the Landlord is an HST registrant:

- (i). upon full and mutual execution and delivery of this Lease by both parties, the sum of [●] (the “**Initial Payment**”);
- (ii). on or before the Possession Date, the lump sum of [●] (the “**Lump Sum Rent**”)

During any Extended Term, the Tenant shall pay to the Landlord the following amount(s) as rent, plus HST, provided the Landlord is an HST registrant:

- (iii). [●]

SCHEDULE D

TRANSFER OF LEASE

THIS AGREEMENT dated as of the _____ day of _____, 20____

BETWEEN:

[•]

(the “**Transferor**”)

AND:

[•]

(the “**Transferee**”)

RECITALS:

- A. Pursuant to a [**purchase and sale agreement/mortgage/•**] dated • between the Transferor and the Transferee (the “**Transfer**”), the Transferor agreed to [sell/mortgage/?] and the Transferee agreed to [purchase/accept as security/?] those lands more particularly described on Appendix I hereto (the “**Lands**”).
- B. The Transferor has leased a portion of the Lands to Imperial Oil (the “**Tenant**”) pursuant to a lease dated • (the “**Lease**”).
- C. The Transferor will transfer and assign to the Transferee all of the Transferor’s right, title and interest in and to the Lease and the Transferee has agreed to assume same.

NOW THEREFORE THIS AGREEMENT WITNESSES that in consideration of the premises, the mutual covenants herein contained and other good and valuable consideration (the receipt and sufficiency of which is hereby acknowledged by each of the parties) the parties hereto covenant and agree as follows:

1. TRANSFER

1.1 Effective as of the date hereof, the Transferor hereby absolutely assigns, transfers and sets over unto the Transferee all of the Transferor’s right, title and interest in and to:

- (a) the Lease;
- (b) any and all rents and other monies payable under the Lease in respect of the period from and after the date hereof; and
- (c) the benefit arising from and after the date hereof of all covenants by the Tenant.

2. ASSUMPTION

2.1 As of the date hereof, the Transferee hereby assumes those obligations of the Transferor under the Leases which are to be observed or performed on or after the date hereof (which obligations are

herein called the “**Assumed Obligations**”) and covenants and agrees with the Transferor that from and including the date hereof, the Transferee will observe and perform all the Assumed Obligations and shall be liable to the Transferor for any and all obligations and liabilities of every nature and kind with respect to any breach by the Transferee of the Assumed Obligations.

2.2 The Transferor will remain liable for failure to observe and perform its obligations under the Leases prior to the date hereof.

3. **FURTHER ASSURANCES**

Each of the parties shall at all times hereafter execute and deliver all such further documents and instruments, and shall do such further acts and things as may be reasonably required to give full effect to this Agreement.

4. **GOVERNING LAW**

This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario.

5. **ENUREMENT**

This Agreement shall enure to the benefit of and be binding upon the parties hereto and their respective successors and assigns.

6. **COUNTERPARTS**

This Agreement may be executed in counterparts and when each party has executed a counterpart, each of such counterparts shall be deemed to be an original and all such counterparts when taken together shall constitute one and the same agreement.

7. **E-MAIL EXECUTION**

This Agreement may be executed by the parties and transmitted by e-mail and if so executed and transmitted, this Agreement shall be for all purposes as effective as if the parties had delivered an executed original Agreement.

[Signature page follows]

IN WITNESS WHEREOF this Agreement has been executed as of the day and year first above written.

[Transferor]

By: _____
Name:
Title:

By: _____
Name:
Title:

[Transferee]

Name:
Title:

Name:
Title:

APPENDIX I

LANDS

SCHEDULE E NOTICE OF LEASE

LRO # 25 Notice Of Lease

In preparation on 2019 02 11 at 17:15

This document has not been submitted and may be incomplete.

yyyy mm dd Page 1 of 2

Properties *legal description to be completed*

Consideration

Consideration \$0.00

Party From(s)

Registered owner names to be inserted

Party To(s)

Capacity

Share

Name IMPERIAL OIL LIMITED

Acting as a company

Address for Service c/o TO BE INSERTED

I am a partner, the firm name of the partnership is IMPERIAL OIL.

Statements

The applicant is prepared to produce the document for inspection within fourteen (14) days of the request and the applicant consents to the cancellation of the document on presentation of proof satisfactory to the Land Registrar that the document was not produced upon request.

Term : TO BE COMPLETED. Expiry Date: TO BE COMPLETED

Right or option to purchase, NONE

Provision for renewal or extension, Yes, TO BE COMPLETED

Schedule: TO BE COMPLETED AS MAY BE NECESSARY

Calculated Taxes

Provincial Land Transfer Tax \$0.00

LRO # 25 **Notice Of Lease**

In preparation on 2019 02 11 at 17:10

This document has not been submitted and may be incomplete.

yyyy mm dd Page 1 of 2

Consideration

Consideration \$0.00

Party From(s)

Party To(s)

Capacity

Share

Name IMPERIAL OIL LIMITED

Acting as a company

Address for Service c/o TO BE INSERTED

I am a partner, the firm name of the partnership is IMPERIAL OIL.

Statements

The applicant is prepared to produce the document for inspection within fourteen (14) days of the request and the applicant consents to the cancellation of the document on presentation of proof satisfactory to the Land Registrar that the document was not produced upon request.

Term : TO BE COMPLETED. Expiry Date: TO BE COMPLETED

Right or option to purchase,

Provision for renewal or extension,

Schedule:

Calculated Taxes

Provincial Land Transfer Tax

\$0.00

APPENDIX 15 TWS LEASE-LAYDOWN AND STORAGE AGREEMENT

File: «File»

T W S L E A S E - L A Y D O W N & S T O R A G E

THIS LEASE made this _____ day of _____ A.D., 20____ (the "Effective Date")

BETWEEN:

«Lessor»

(hereinafter called the "Landlord");

- AND -

IMPERIAL OIL, an Alberta partnership,
having its Head Office at the City of Calgary, in the Province of Alberta,
(hereinafter called the "Tenant")

RECITALS:

- A. The Landlord is the registered owner (or is entitled to become registered as owner under an agreement for sale or unregistered transfer or otherwise) of an estate in fee simple, in the Province of Ontario and legally described on Schedule A attached hereto (the "**Lands**").
- B. The Tenant has been granted an easement over, adjacent to or in the vicinity of, the Lands (the "**Easement**") for the purpose of a pipeline (the "**Pipeline**").
- C. The Landlord has agreed to lease certain portions of the Lands to the Tenant for the purposes and upon the terms and conditions hereinafter set forth.

NOW THEREFORE THIS AGREEMENT WITNESSES:

THE LANDLORD DOES HEREBY LEASE, at the rental hereinafter set forth, to the Tenant all and singular those parts or portions of the Lands shown coloured in green on the sketch or plan attached hereto as Schedule B (the "Leased Premises"), to be held by the Tenant as tenant for the term of two years (the "**Term**") commencing on the Possession Date (as hereinafter defined) for the purpose of providing a temporary workspace to the Tenant, its employees, agents and contractors, with respect to the Pipeline, including the right to enter and use the Leased Premises with vehicles, materials, machinery, supplies and equipment, together with the right of ingress and egress over the remainder of the Lands to and from the Leased Premises, and to sample soil, survey lands and to lay down, construct, maintain, inspect, alter, remove, replace, reconstruct and repair one or more line(s) of pipe within the Easement and, as necessary, to locate a temporary construction office, to erect a temporary utility or communication tower, for staging, for storing or stockpiling equipment, materials, supplies and machinery, together with the right at any time and from time to time during the Term to remove any boulder or rock and to sever, fell, remove or control the growth of any roots, trees, stumps, brush or other vegetation in, on, above, or under the Lands, and the right to remove buildings or other improvements from the Leased Premises and to install temporary gates and fences and stockpiling of construction spoil, materials and equipment as required by the Tenant. During the Term, the Landlord shall not use the Lands for any purpose that would interfere with or detrimentally affect the Tenant's use of the Leased Premises.

YIELDING AND PAYING unto the Landlord rent in the amount, and payable at the times, set out in Schedule C plus applicable taxes.

THE LANDLORD AND THE TENANT HEREBY MUTUALLY COVENANT AND AGREE AS FOLLOWS:

1. POSSESSION DATE:

The Tenant shall notify the Landlord in writing at least thirty (30) days prior to the date upon which the Tenant shall require occupancy of the Leased Premises (the "**Possession Date**").

2. TAXES PAID BY LANDLORD:

That the Landlord will promptly pay and satisfy all taxes, rates and assessments that may be assessed or levied against the Lands, including the Leased Premises during the Term.

3. QUIET ENJOYMENT:

That the Landlord warrants that it has good right and full power to grant and lease the Lands, rights and privileges in the manner aforesaid, and that the Tenant, upon observing and performing the covenants and conditions on the Tenant's part herein contained, shall and may peaceably possess and enjoy the Leased Premises and the rights and privileges hereby granted during the said term and any extension thereof without any interruption or disturbance from or by the Landlord or any other persons claiming by, through or under the Landlord.

4. RENEWAL:

Provided the Tenant is not then in default in respect of any of the covenants and conditions contained in this Lease beyond any applicable notice and cure period, the Tenant shall have the right to extend the Term year to year, not to exceed an additional [two (2)] years in the aggregate (each such year an "**Extended Term**") upon providing written notice at least ninety (90) days prior to the expiry of the Term and any Extended Term. Such Extended Term shall be subject to all the provisions hereof save and except for the payment of rent, which rent for the Extended Term shall be as set out in Schedule C.

5. INDEMNIFICATION:

The Tenant shall indemnify and save harmless the Landlord from and against any and all claims and demands brought against the Landlord by other persons resulting from the Tenant's negligence and misconduct during the Tenant's use and occupation of the Leased Premises, save and except to the extent caused by the Landlord's negligence or misconduct.

6. ABANDONMENT AND RESTORATION:

The Tenant shall, upon the termination of the use and occupation of the whole or any portion of the Leased Premises and the surrender of the whole or any part of the rights herein granted, restore and deliver up to the Landlord the Leased Premises or any portion thereof in a condition as close as practicable to the condition of the Leased Premises or said portion thereof, as the same existed immediately prior to the entry by the Tenant and as required by applicable laws; PROVIDED that

where the Leased Premises or any portion thereof was treed prior to entry or was otherwise in a natural uncultivated state, the Tenant, at its option, may return the Leased Premises or such portion thereof to the Landlord in a vacant and level-graded state.

7. PARTIAL OR TOTAL SURRENDER OF ACREAGE:

Notwithstanding anything in Section 6, the Tenant may from time to time and at any time surrender all or portion of the Leased Premises upon giving written notice to the Landlord. Such notice may be delivered or mailed to the Landlord and shall be accompanied by a sketch or plan showing outlined in red any portion or portions of the Leased Premises retained by the Tenant. The annual rental as herein stipulated shall, during any Extended Term, be payable only for the retained portion of the Leased Premises, and shall be calculated as a proportion of the aforementioned annual rental based on the ratio that the retained portion bears to the original entire Leased Premises.

8. INCREASE OF LEASED PREMISES:

The Tenant shall have the right, upon written notice to the Landlord (the "**Expansion Notice**"), to increase the size of the Leased Premises if required by the Tenant to carry out its works in connection with the Pipeline, in which event Schedule B will be amended to show such increased area and the Lump Sum Payment of rent in Schedule C shall be increased proportionately and paid on the later of:

- (i). the Possession Date; and
- (ii). ninety (90) days after delivery of the Expansion Notice.

9. COMPENSATION FOR DAMAGES:

The Tenant shall compensate the Landlord for direct damage (but not indirect or consequential damages) done by Tenant's servants and agents which, without restricting the generality thereof, shall include crops, machinery, livestock, fences, buildings, or other improvements of the Landlord upon the Lands other than the Leased Premises.

10. REMOVAL OF EQUIPMENT:

The Tenant shall at all times during the continuance of the Lease have the right to remove or cause to be removed from the Lands all buildings, structures, fixtures, casing in wells, pipelines, material and equipment of whatsoever nature or kind, which Tenant may have placed on or in the Leased Premises or on or in any area to be surrendered.

11. ASSIGNMENT BY TENANT:

Notwithstanding anything herein to the contrary the Tenant may delegate, assign or convey to other persons or corporations, all or any of the powers, rights and interests obtained by or conferred upon the Tenant hereunder to be enjoyed by such person or corporations either singly or jointly with the Tenant, and may enter into all agreements, contracts and writings and do all necessary acts and things to give effect to the provisions of this clause, provided that such persons or corporations must use the Leased Premises for operations similar to the Tenant's operations. If the Tenant assigns its entire right and interest in, to, and under this Lease to another person or corporation ("**Assignee**"), then from and after the date of receipt of written notice of the assignment, the Landlord shall hold Assignee solely responsible and liable with respect to all the terms and conditions of this Lease. By accepting such assignment, Assignee shall assume all the obligations of the Tenant.

12. TOPSOIL AND WEEDS:

The Tenant agrees, unless otherwise requested by the Landlord, to strip, and conserve the topsoil from the Leased Premises having regard to good soil conservation practices and upon completion of its operations to return such topsoil on the Leased Premises to a depth reasonably similar to those conditions existing prior to the commencement of construction. The Tenant shall also take reasonable steps and exercise reasonable precautions as required to control, inhibit and destroy the growth of noxious weeds on the Leased Premises.

13. FENCING:

The Tenant may, if reasonably required by the Landlord or Tenant, erect a good and substantial fence around any temporary installations and provide a proper livestock guard at any point of entry to the Leased Premises used by it, and the Tenant shall replace or repair any fences which it may have removed or damaged.

14. DEFAULT:

Neither party shall be considered in default in the performance of its obligations under this Lease to the extent that the performance of such obligations or any of them is delayed by circumstances, existing or future, which are beyond the control of the Landlord or the Tenant; FURTHER, the Tenant shall not be considered in default in the performance of any of its obligations under this Lease until the Landlord has by written notice notified the Tenant of such default and the Tenant has failed to remedy such default within thirty (30) days, or such longer period as may be reasonably required provided Tenant has commenced to remedy such default within such thirty (30) day period and continues to act diligently thereafter to cure such default.

15. NOTICES:

All notices or payments required or permitted to be given under or in connection with this agreement shall be in writing and shall be personally delivered, mailed by registered mail, faxed or sent by electronic transmission or courier to the party to whom the notice is to be given and, when mailed, any such notice shall be deemed to be given to, and received by, the addressee ten (10) days (Saturdays, Sundays and statutory holidays in the province of Ontario excluded) after the mailing thereof.

Unless changed by notices the addresses of the parties hereto shall be:

Tenant: Imperial Oil

Imperial Oil Resources Limited
Surface Land Manager
505 Quarry Park Blvd. SE
Calgary, Alberta T2C 5N1
Fax No.:
Email:

Landlord: **«Address»**

16. ENUREMENT:

THESE PRESENTS and everything herein contained shall enure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors-in-title, successors and assigns.

17. ASSUMPTION:

The Landlord covenants and agrees that if it transfers, assigns, charges, leases or otherwise disposes of all or any part of its interest in the Lands (collectively, a "**Transfer**") to another person (the "**Transferee**") it will obtain and deliver to the Tenant an assumption agreement in the form of Schedule "D", from such Transferee in favour of the Tenant assuming and agreeing to be bound by all of the terms of this Lease as if the Transferee had been an original signatory to this Lease.

18. INVALIDITY:

If any provision of this Lease is invalid under any applicable statute or is declared invalid by a court of competent jurisdiction, then it shall be deemed to be severed from this Lease provided, however, that the remainder of this Lease shall continue in full force and effect.

19. INTERPRETATION:

Wherever the singular or masculine is used, the same shall be construed as meaning the plural or feminine, or a body corporate, where the context or the parties so require.

20. PERSONAL INFORMATION CONSENT:

By providing personal information to the Tenant, the Landlord consents to the Tenant's collection, use, retention and disclosure of that information for any and all purposes and uses as permitted or contemplated under this Agreement and as needed to comply with any legal requirements.

21. NON RESIDENT STATUS:

Each Landlord represents that he or she is not a non-resident of Canada within the meaning of the Income Tax Act (Canada), and that if the Landlord's status for income tax purposes changes, the Landlord will promptly notify the Tenant in writing. Subsequent to such notification, any payment made by or on behalf of the Tenant to the Landlord under this Lease will be made net of any deduction or withholding as required by the Income Tax Act (Canada) or any other applicable law.

22. FURTHER ASSURANCES:

The parties hereto agree to do, make and execute, if necessary, at no further cost or condition to the other except payment of reasonable out-of-pocket costs, such other instruments, plans, documents, authorizations, permitting letters, consents acts, matters and things and take such further action as may reasonably be required by the other party in order to effectively carry out the true intent of this agreement.

23. NOTICE OF LEASE/ACKNOWLEDGEMENT AND DIRECTION:

The Landlord hereby authorizes and directs the Tenant's solicitors or agent or their designees to sign, release and register electronically on behalf of the Landlord, but at the Tenant's expense, a Notice of Lease substantially in the form attached as Schedule E and the Landlord confirms that the Landlord understands that it is a party to and bound by the terms and provisions thereof. The Notice of Lease shall contain only the following provisions: the parties, the Leased Premises, the Term and any options to renew or extend (as applicable). The Tenant will promptly provide a copy of the registered notice to the Landlord and will discharge same promptly upon expiry or termination of the Lease. The Landlord, on its own behalf, may also register notice of this Lease, or a short form thereof, against title to the Leased Premises including only the information noted above.

24. COUNTERPARTS:

This Lease may be executed and delivered in counterparts and by facsimile or electronic (pdf) transmission and electronic signatures shall be deemed original signatures. When all counterpart documents are executed and delivered, the counterparts shall be deemed to be an original, and shall constitute a single binding instrument. The delivery of an unexecuted version of this Lease shall not be construed as an offer to lease and this Lease shall not be binding upon either party until it has been executed and delivered by both parties.

25. GOVERNING LAW:

This agreement shall be governed by and construed in accordance with the laws of the province of Ontario and the federal laws of Canada applicable therein.

26. FAMILY LAW ACT

If the spousal consent at the end of this Agreement has not been executed, the Landlord warrants that no person other than Landlord has rights to any matrimonial home on the Lands under the Family Law Act and that spousal consent is not necessary for the grant of this Lease.

27. EARLY TERMINATION

Notwithstanding any provision herein to the contrary, the Tenant shall have the right to terminate this Lease immediately upon written notice to the Landlord. If such notice of termination is delivered on or before the Possession Date, then the Lump Sum Rent shall no longer be payable. For clarity, the Initial Payment shall be retained by the Landlord notwithstanding any such early termination.

[Signature page follows]

IN WITNESS WHEREOF the Landlord and Tenant have executed and delivered these presents as of the day and year first above written.

[IF LANDLORD IS AN INDIVIDUAL:

SIGNED, SEALED AND DELIVERED

by the Landlord in the presence of:

Name
Address:

_____]
«Lessor's Name»

[IF LANDLORD IS A CORPORATION:

«REGISTERED OWNER»:

Per: _____
Print Name: _____
Position Title: _____
I/We have authority to bind the corporation]

IMPERIAL OIL, by its Managing Partner, IMPERIAL OIL LIMITED

Per: _____
Print Name: _____
Position Title: _____
I/We have authority to bind the corporation

Per: _____
Print Name: _____
Position Title: _____
I/We have authority to bind the corporation

I, being married to Landlord or otherwise having rights to a matrimonial home on the Lands under the Family Law Act, hereby consent to this Lease and agree to execute all additional documents that may be required to give full force and effect to this Lease and to register this Lease or a notice thereof against the Lands.

Witness

Spouse

Name
Address

«Spouse's Name»

Date

SCHEDULE A
LANDS

SCHEDULE B
LEASED PREMISES

[NTD – See Attached]

SCHEDULE C

RENT

During the Term, the Tenant shall pay to the Landlord the following amounts as rent, plus HST, provided the Landlord is an HST registrant:

- (i). upon full and mutual execution and delivery of this Lease by both parties, the sum of [●] (the “**initial payment**”);
- (ii). on or before the Possession Date, the lump sum of [●] (the “**Lump Sum Rent**”)

During any Extended Term, the Tenant shall pay to the Landlord the following amount(s) as rent, plus HST, provided the Landlord is an HST registrant:

- (i). [●]

SCHEDULE D

TRANSFER OF LEASE

THIS AGREEMENT dated as of the _____ day of _____, 20____

BETWEEN:

[•]

(the “**Transferor**”)

AND:

[•]

(the “**Transferee**”)

RECITALS:

- A. Pursuant to a [**purchase and sale agreement/mortgage/•**] dated • between the Transferor and the Transferee (the “**Transfer**”), the Transferor agreed to [sell/mortgage/?] and the Transferee agreed to [purchase/accept as security/?] those lands more particularly described on Appendix I hereto (the “**Lands**”).
- B. The Transferor has leased a portion of the Lands to Imperial Oil (the “**Tenant**”) pursuant to a lease dated • (the “**Lease**”).
- C. The Transferor will transfer and assign to the Transferee all of the Transferor’s right, title and interest in and to the Lease and the Transferee has agreed to assume same.

NOW THEREFORE THIS AGREEMENT WITNESSES that in consideration of the premises, the mutual covenants herein contained and other good and valuable consideration (the receipt and sufficiency of which is hereby acknowledged by each of the parties) the parties hereto covenant and agree as follows:

1. TRANSFER

1.1 Effective as of the date hereof, the Transferor hereby absolutely assigns, transfers and sets over unto the Transferee all of the Transferor’s right, title and interest in and to:

- (a) the Lease;
- (b) any and all rents and other monies payable under the Lease in respect of the period from and after the date hereof; and
- (c) the benefit arising from and after the date hereof of all covenants by the Tenant.

2. ASSUMPTION

2.1 As of the date hereof, the Transferee hereby assumes those obligations of the Transferor under the Leases which are to be observed or performed on or after the date hereof (which obligations are herein called the “**Assumed Obligations**”) and covenants and agrees with the Transferor that from and

including the date hereof, the Transferee will observe and perform all the Assumed Obligations and shall be liable to the Transferor for any and all obligations and liabilities of every nature and kind with respect to any breach by the Transferee of the Assumed Obligations.

2.2 The Transferor will remain liable for failure to observe and perform its obligations under the Leases prior to the date hereof.

3. FURTHER ASSURANCES

Each of the parties shall at all times hereafter execute and deliver all such further documents and instruments, and shall do such further acts and things as may be reasonably required to give full effect to this Agreement.

4. GOVERNING LAW

This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario.

5. ENUREMENT

This Agreement shall enure to the benefit of and be binding upon the parties hereto and their respective successors and assigns.

6. COUNTERPARTS

This Agreement may be executed in counterparts and when each party has executed a counterpart, each of such counterparts shall be deemed to be an original and all such counterparts when taken together shall constitute one and the same Agreement.

7. E-MAIL EXECUTION

This Agreement may be executed by the parties and transmitted by e-mail and if so executed and transmitted, this Agreement shall be for all purposes as effective as if the parties had delivered an executed original Agreement.

[Signature page follows]

IN WITNESS WHEREOF this Agreement has been executed as of the day and year first above written.

[Transferor]

By: _____
Name:
Title:

By: _____
Name:
Title:

[Transferee]

Name:
Title:

Name:
Title:

APPENDIX I

LANDS

SCHEDULE E
NOTICE OF LEASE

LRO # 25 Notice Of Lease

In preparation on 2019 02 11 at 17:15

This document has not been submitted and may be incomplete.

yyyy mm dd Page 1 of 2

Properties *legal description to be completed*

Consideration

Consideration \$0.00

Party From(s)

Registered owner names to be inserted

Party To(s)	Capacity	Share
--------------------	-----------------	--------------

Name	IMPERIAL OIL LIMITED
Address for Service	Acting as a company c/o TO BE INSERTED

I am a partner, the firm name of the partnership is IMPERIAL OIL.

Statements

The applicant is prepared to produce the document for inspection within fourteen (14) days of the request and the applicant consents to the cancellation of the document on presentation of proof satisfactory to the Land Registrar that the document was not produced upon request.

Term : TO BE COMPLETED. Expiry Date: TO BE COMPLETED

Right or option to purchase, NONE

Provision for renewal or extension, Yes, TO BE COMPLETED

Schedule: TO BE COMPLETED AS MAY BE NECESSARY

Calculated Taxes

Provincial Land Transfer Tax	\$0.00
------------------------------	--------

LRO # 25 **Notice Of Lease**

In preparation on 2019 02 11 at 17:10

This document has not been submitted and may be incomplete.

yyyy mm dd Page 1 of 2

Consideration

Consideration \$0.00

Party From(s)

Party To(s)

Capacity

Share

Name IMPERIAL OIL LIMITED

Acting as a company

Address for Service c/o TO BE INSERTED

I am a partner, the firm name of the partnership is IMPERIAL OIL.

Statements

The applicant is prepared to produce the document for inspection within fourteen (14) days of the request and the applicant consents to the cancellation of the document on presentation of proof satisfactory to the Land Registrar that the document was not produced upon request.

Term : TO BE COMPLETED. Expiry Date: TO BE COMPLETED

Right or option to purchase,

Provision for renewal or extension,

Schedule:

Calculated Taxes

Provincial Land Transfer Tax

\$0.00

APPENDIX 16 CONSTRUCTION ACCESS AGREEMENT

File: #
Parcel ID:

CONSTRUCTION ACCESS AGREEMENT

THIS AGREEMENT made this _____ day of _____, 20__.

BETWEEN:

(hereinafter called the "Owner")
- and -
IMPERIAL OIL
(hereinafter called "Imperial")

As the Owner and Imperial are parties to this Agreement covering the following lands (the "Lands"):

[Placeholder for Lands]

NOW THEREFORE THIS AGREEMENT WITNESSES that in consideration of the sum of _____
(\$●) payable by Imperial to the Owner (the "Payment") and such other good and valuable consideration (the receipt and sufficiency of which is hereby acknowledged), the parties covenant and agree as follows:

1. The Owner hereby grants to Imperial, its affiliates, subsidiaries, associates, and contractors, and each of their authorized employees, representatives and contractors permission to, access to, and entry to the Lands for vehicle and equipment access connected with the Waterdown to Finch Project construction, a 63 KM installation of pipe from Waterdown ON to North York ON (collectively, the "Work"). The Work shall be conducted in the area on the attached sketch or Individual Ownership Plan.
2. Imperial shall provide the Payment to the Owner on or before the date Imperial requires access to the Lands (the "Possession Date").
2. Owner confirms that there are no tenants or other persons whose consent is required for Imperial to access the Lands. If there are tenants or other persons whose consent is required, the Owner confirms that they have obtained such persons' consent.
3. Owner agrees that Imperial shall have access to the Lands until the completion of the Work and that the consideration payable under this Agreement is the sole payment payable by Imperial for access and any inconvenience, nuisance, or adverse effect arising out of or in connection with the Work. Imperial will compensate the Owner for any crop loss that occurs as a result of the Work unless otherwise directed by the Owner.
4. Imperial shall indemnify and save harmless the Owner from and against any and all claims and demands brought against the Owner by other persons resulting from Imperial's negligent use and occupation of the demised premises. Imperial will be liable to the Owner for any damages that occur to the Land as a result of the Work. Notwithstanding anything in this paragraph, Imperial shall in no case be required to release or indemnify Owner for the gross negligence or willful misconduct of the Owner or tenants of the Lands.
5. This agreement may be signed by each party in counterpart.
6. Imperial shall notify Owner in writing at least thirty (30) days prior to the Possession Date.
7. This agreement shall remain in effect for two years commencing on the Possession Date.

IMPERIAL OIL, by its managing Partner IMPERIAL OIL LIMITED.

Ron Tourigny
Senior Landman

Owner: _____

Witness: _____