WATERDOWN TO FINCH PROJECT
INDIGENOUS CONSULTATION LOGS BACKUP DOCUMENTATION TO JANUARY 2019

Submitted via the OEB LtC Application in February 2019 and provided directly to the MENDM in April 2019
(LtC Exhibit H)

Imperial

Waterdown to Finch Pipeline Project
May 11, 2018
Meeting Summary Notes

**Please note that these meeting notes provide a summary of the discussion; however, these are not detailed minutes of the meeting. While we have endeavored to document the main points, some discussion items may not be included.*

Participants	
Mississauga New Credit First Nation (MNCFN) • Fawn Sault (FS) • Megan DeVries (MD), Archaeological Coordinator, Department of Consultation and Accommodation	*Imperial* • Chris Plain (CP) • Leanne Dohy (LD) • Martin Bates (MB) • Elias Majdalani (EM) • Robert Ballinger (RB)

Meeting Objectives

- Early Notification to MNCFN
- Overview presentation of Imperial's Waterdown to Finch Pipeline Project (the Project)
- Discussion on MNCFN's interests in field survey work

Topic	Discussion
Location	• Meeting held at the MNCFN, Department of Consultation and Accommodation office, 4065 Hwy 6, Hagersville, ON N0A 1H0
Agenda	• Overview of meeting agenda
Materials	• Imperial: Imperial's Sarnia Products Pipeline Waterdown to Finch Powerpoint presentation May 2018 • MNCFN: MNCFN's Standards and Guidelines for Archeology • http://mncfn.ca/wp-content/uploads/2018/04/MNCFN-SGs-for-Archaeology.pdf
Introduction	• MNCFN began the meeting by introducing the participants to the history of the MNCFN
Safety Moment	• Imperial (RB) provided a safety moment on Imperial's pipeline maintenance and integrity program. Imperial has a strong focus on safety. The record of safe and reliable operations is attributed to our preventative maintenance and proactive pipeline inspection program. • Monitored 24 hours a day, 365 days a year. • The emergency response team in Ontario is highly trained, appropriately resourced and ready to respond quickly in the unlikely event of a pipeline emergency. • MNCFN (MD) expects to be onsite whenever there are integrity digs. • Imperial (RB) acknowledged this and asked for input on other useful ways to improve communication regarding the integrity program, including doing a community history session with ROW team members. • MNCFN (MD) the community is particularly concerned about pipelines from the 1960s and older, as the archeological protocols were quite different then. MD indicated that

Topic	Discussion
	Stage 2 archaeology studies are required before integrity digs, and that the community would require FLR Monitors on-site during the field survey work.
Overview	• Imperial provided an overview of the Project. • Background and route of Sarnia Products Pipeline (SPPL), important infrastructure for the region. • Project need is driven by Imperial's maintenance and integrity program. • Imperial's Sarnia Products Pipeline is important infrastructure that provides fuels 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 our region. • MNCFN (FS) asked if the Wat-Fin Project will take place in the existing pipeline corridor. • Imperial (MB) responded that as much as possible, most replacement work will take place in close vicinity to the existing pipeline corridor. • MNCFN (MD) noted that it appears the Project will required more than 25+ horizontal directional drills (HDD) under crossings. • Imperial (MB) clarified that not all of these are water crossings, some are roadways. • Imperial is working carefully to plan the Project so that construction impacts are as limited as possible. A horizontal directional drill (HDD) is a method of installing underground pipe using a drilling rig at the surface level. It is best used at sensitive areas, or in dense residential or commercial areas. • MNCFN (FS) asked if Imperial has been in touch with MTO, because MTO has plans for a high speed rail transportation corridor. • Imperial plans to notify MTO of the Project. Imperial will be required to engage various regulators, at all levels, landowners and communities to understand interests and to minimize disruptions. Request for Field Liaison Representative (FLR) Monitors • Imperial (EM) shared information on the environmental survey work to be carried out. EM noted that the initial environmental survey work has begun, with amphibian studies in April 2018. Additional surveys will be carried out in 2018. • MNCFN (FS) requested MNCFN want to be engaged in all environmental studies going forward, MNCFN Field Liaison Representatives (FLR) Monitors will be required for field survey work. MNCFN (FS) requested a list of all environmental field surveys to be carried out. FS noted that breeding bird studies would need to be done in the next few months. MD is responsible for coordinating the participation of MNCFN FLR Monitors. A contract agreement will need to be in-place before MNCFN boots on the ground for all field work surveys. • MNCFN (MS) indicated that she believes there is high potential for an archeological find along the Project route, and cited her experiences with the archeological needs and ensuing schedule impacts of other recent industry projects in the region.

Topic	Discussion
	• MNCFN (FS), noted that FLR Monitors will be also be required for participation in construction and restoration monitoring. • Imperial acknowledged the MNCFN request and will look to accommodate this request. • The start of the FLR Monitor participation was not finalized. However, it was decided by the meeting participants that Imperial will participate in the upcoming June 15 MNCFN community session.

Summary of Actions	Who
• Imperial to accommodate MNCFN's request for Field Liaison Representative (FLR) Monitors for environmental field survey work. • Imperial and MNCFN to establish an agreement to deliver participation of FLR Monitors on environmental field survey work. Imperial will provide MNCFN with a list of upcoming field work.	CP
• MNRF shared MNCFN's Standards and Guidelines for Archeology. This will be provided to Imperial's archaeology consultant.	CP
• Imperial and MNCFN agreed to host a community session on June 15, 2018 to introduce the Project.	CP
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Waterdown to Finch General Inquiries
questions@imperialon.ca
416.586.1915

May 22, 2018

Fawn Sault
Department of Consultation & Accommodation
Mississaugas of the New Credit First Nation
4065 Highway 6
Hagersville, Ontario
N0A 1H0

Dear Ms. Sault,

Imperial's Sarnia Products Pipeline (SPPL) is important infrastructure that provides fuels used by households and businesses across the Greater Toronto and Hamilton Area. This includes a significant portion of jet fuel at Toronto Pearson International Airport, as well as gasoline and diesel fuel that keeps people, goods and services moving throughout the region.

Operating safely in the region for many years, Imperial is planning to replace approximately 63-kilometres of the line with new pipe. This section runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area.

The Waterdown to Finch Project is proactively replacing a segment of pipeline to deliver continued safety and reliability.The existing pipeline will continue to operate until the project is complete.

Environmental and cultural assessments will start in the spring of 2018. Subject to provincial regulatory review and receipt of all permits, Imperial anticipates construction to begin in 2019.

Most replacement work will take place in close vicinity to the existing pipeline. Imperial representatives will also be communicating with landowners where proposed activities may be taking place in the coming weeks. Over the duration of the project, we will work collaboratively and communicate proactively to minimize construction impacts.

Please accept this letter as a formal notification of Imperial's Waterdown to Finch Project. Imperial would like to schedule a meeting to discuss the Waterdown to Finch Project, share information and answer questions. If you would like to learn more about the Waterdown to Finch Project, please contact us at questions@imperialon.ca or leave a message at 416-586-1915.

In addition to the project brochure and meeting offer, you can also visit our project website at imperialoil.ca/waterdowntofinch for an overview of the proposed replacement work, including project facts, work schedule, construction practices and community engagement efforts.

We look forward to connecting.

Sincerely,

Christopher Plain
Indigenous Relations Lead – Ontario Region
Imperial Oil Limited

Imperial

Waterdown to Finch Pipeline Project
MNCFN Proponent's Open House Community Event
June 15, 2018
Meeting Summary Notes

**Please note that these meeting notes provide a summary of the discussion; however, these are not detailed minutes of the meeting. While we have endeavored to document the main points, some discussion items may not be included.*

Participants	*Imperial*
• Community members of the Mississaugas of the New Credit First Nation (MNCFN)	• Robert Ballinger, Area Manager, East Canada, Canada Fuel Operations (RB) • Chris Plain, Indigenous Relations Lead – Ontario Region (CP) • Leanne Dohy, Socio-economic Advisor (LD) • Jessie Malone, Environmental and Regulatory Advisor (JM) • Chad Hughes (CH), Canada Fuel Operations • Ian Munro (IM), Canada Fuel Operations *ERM* • Curtis Campbell, Project Director (CC) • Jim Chan, Senior Consultant (JC)

Meeting Objectives

- On a quarterly basis, MNCFN holds a Proponent's Open House Community Event with a BBQ, bouncy castle for kids, and informal tents and display booths. The objective is to introduce community members to projects and initiatives of invited companies and municipalities.

Topic	Discussion
Location	• Held in front of the Department of Consultation and Accommodation (DOCA) at MNCFN, 4065 Ontario Route 6, Hagersville, ON N0A 1H0
Materials	• Imperial poster display boards • Imperial Waterdown to Finch Project brochure
Overview	• The following were topics of conversation with community members at the Imperial poster display boards organized by topic. An estimate of 100 community members in attendance. An estimate of 30+ people stopped by the booth and an estimate of 15 individuals spoke to Project team representatives. • Companies and municipalities in attendance included: Imperial Oil Limited, Walker Industries, Hydro One, City of Brantford, City of Toronto (Waterfront Toronto), Infrastructure Ontario (Realty Section - archaeology work for Court House)
Operations/ Spills	What about the potential for spills? Who is responsible? • Imperial is taking proactive safety measures to prevent spills. We have a robust Emergency Response Plan. Regulations and government oversight dictate how we prepare for and respond to a potential pipeline spill. We would be responsible for

Topic	Discussion
	cleaning up and mitigating damages. Imperial has proactive safety measures. We use in-line inspection tools, which are sent from one side of the line to the other and measures the inside diameter of the pipeline and assesses the integrity of the line. • Fly the line every week; portions that can't be flown are ground patrolled. • Entire line walked in a periodic frequency. • Monitored 24 hours a day, 365 days a year. In the unlikely event of a spill, the line will be shutdown immediately. We would implement the Emergency Response Plan, evaluate the hazards and risks, protect property, protect waterways and wildlife, coordinate the emergency response and clean up the site. • Emergency Preparedness -- While we manage our business with the goal of preventing incidents, we are prepared for emergencies should they occur and can respond quickly, effectively and with care to emergencies or incidents resulting from our operations. In addition to responding quickly and effectively, we cooperate with industry organizations and authorized government agencies if an incident occurs. Each Imperial site worldwide has an emergency preparedness & response plan. Employees prepare themselves through training, simulations and drills. Imperial believes that environmental responsibility also means maintaining a strong capability to respond to operational emergencies, should they occur. We place great emphasis on preparing to respond quickly and effectively to mitigate the impact of incidents. The Canada Fuels Operating business has trained teams that are routinely tested against a range of scenarios including product spills, fires, explosions, natural disasters, and security incidents.
Deactivation of pipeline	Why are you not pulling out the pipeline? What is the pipeline material made of? • Imperial responded that the pipeline is made of steel. The current pipeline will be deactivated and removed from service. It will be cleaned, filled with nitrogen, maintained with cathodic protection, and monitored and left in place in accordance with regulatory requirements. The existing pipeline corridor has other buried infrastructure that is in close proximity. Deactivation is undertaken to reduce environmental impacts (soil stability, slope stabilization, settlement issues and potential impacts to other infrastructure).
Operations/ Spills	Have you had any problems with the line? Why are you replacing it? How long is the replacement pipeline segment? Where is the refinery? • The current line is over 50+ years old. As part of Imperial's proactive maintenance program, the 63 kilometre pipeline segment replacement is to provide continued safe operations of the line. Replacement is like for like, meaning 12" in diameter pipe for new 12" pipe. • Refinery is in Sarnia. The pipeline carries refined products such as jet fuel, gasoline, diesel that is used in the Greater Toronto and Hamilton Area.
Indigenous Monitors	Are there MNCFN Field Liaison Representative (FLR) Monitors involved? • Subsequent to the MNCFN Proponent's Open House, agreement finalized for FLR Monitors to participate in and observe field work.

Topic	Discussion
Community Benefits	Does Imperial have scholarships? • Yes, we are open to having discussions on this topic with the community.
Operations	Is it refined product? Does it cross the border? Where is the refinery? • Yes, the pipeline carries refined products such as jet fuel, gasoline, diesel that is used in the Greater Toronto and Hamilton Area. • No, the pipeline is within Ontario and does not cross a provincial or international boundary. • Refinery is in Sarnia.
Operations/ Indigenous Monitors	How old is the pipeline? Do you have FLR Monitors? Standards 50 years ago for archaeology is not as good as now. Important that archaeology standards are in place. • The current line is over 50+ years old. Yes, we have FLR Monitors to participate and observe upcoming field work. We want to be respectful of procedures and protocols. We acknowledge that archaeology standards not the same as present. We will work with the MTCS and MNCFN on the archaeology work.
Operations/ Spills	What's wrong with the old one? Has it leaked? What is it made out of? • The current line is over 50+ years old. As part of Imperial's proactive maintenance program, the 63 kilometre pipeline segment replacement is to provide continued safe operations of the line. Replacement is like for like, meaning 12" for 12". • The pipeline is made out of steel.
Operations/ Spills	Are you replacing the whole line? What's wrong with the line? Has line given you any problems? • This is part of proactive safety maintenance to replace a 63-kilometre segment from Waterdown Station in rural Hamilton to Finch Station in Toronto North York area. • The current line is aging and is important infrastructure that requires replacement.
Indigenous Monitors	Are there MNCFN Field Liaison Representative (FLR) Monitors involved? My kids are involved as FLR Monitors. • Subsequent to the MNCFN Proponent's Open House, agreement finalized for FLR Monitors to participate and observe field work.
Topic	What's in this for MNCFN? • As part of Imperial's proactive maintenance program, this is a pipeline segment replacement is to provide continued safe operations of the line. There are opportunities and we would look to the community to drive the discussion, in addition to the work we are doing with the work force development initiative and Inspire.
	I'm concerned about spills. What are you doing to protect from spills? Have you had a spill? Protecting the water is important to me and for future generations. • Protecting water, property, wildlife, and the environment is important to us too.

Topic	Discussion
	• Imperial is taking proactive safety measures to prevent spills. We have a robust Emergency Response Plan. Regulations and government oversight dictate how we prepare for and respond to a potential pipeline spill. We use in-line inspection tools, which are sent from one side of the line to the other and measures the inside diameter of the pipeline and assesses the integrity of the line. • Fly the line every week, those portions that can't be flown are ground patrolled. • Entire line walked in a periodic frequency. • Monitored 24 hours a day, 365 days a year. In the unlikely event of a spill, the line will be isolated and shutdown immediately. We would implement the Emergency Response Plan, evaluate the hazards and risks, protect property, protect waterways and wildlife, coordinate the emergency response and clean up the site. • Emergency Preparedness -- While we manage our business with the goal of preventing incidents, we are prepared for emergencies should they occur and can respond quickly, effectively and with care to emergencies or incidents resulting from our operations. In addition to responding quickly and effectively, we cooperate with industry organizations and authorized government agencies if an incident occurs. Each Imperial site worldwide has an emergency preparedness & response plan. Employees prepare themselves through training, simulations and drills. Imperial believes that environmental responsibility also means maintaining a strong capability to respond to operational emergencies, should they occur. We place great emphasis on preparing to respond quickly and effectively to mitigate the impact of incidents. The Canada Fuels Operating business has trained teams that are routinely tested against a range of scenarios including product spills, fires, explosions, natural disasters, and security incidents.

Potential topics to record for Isometrix reporting:

☒	Accidents and Malfunctions	☐	Aquatic Resources and species
☐	Air Emissions and Noise	☒	Archaeology
☐	Alternatives	☐	Community Contribution Request
☐	Cultural Heritage Resources	☐	Groundwater
☒	Emergency Response	☒	Operational Issue
☒	Excavation/Damage Prevention/Pipeline Location		
☐	Right-of-Way/Access Agreement	☐	Traditional use
☒	Safety, Health and Environment	☐	Vegetation
☐	Socioeconomic (labour, economy, social)	☐	Wetlands
		☒	Wildlife and Habitat

Imperial

Waterdown to Finch Pipeline Project
July 19, 2018
Meeting with MNCFN Summary Notes

**Please note that these meeting notes provide a summary of the discussion; however, these are not detailed minutes of the meeting. While we have endeavored to document the main points, some discussion items may not be included.*

Participants

Mississauga New Credit First Nation (MNCFN)

- Megan DeVries (MD), Archaeological Operations Supervisor, Department of Consultation and Accommodation
- Peter Epler, Field Archaeologist (PE)

Imperial

- Chris Plain, Indigenous Relations Lead – Ontario Region (CP)
- Kelly Williams, Indigenous Relations (KW)
- Leanne Dohy, Socio-economic Advisor (LD)
- Jessie Malone, Environment and Regulatory Advisor (JM)

ERM

- Jim Chan, Senior Consultant (JC)

Past Recovery

- Brenda Kennett, Archaeologist (BK)

Meeting Objectives

- Overview presentation of Imperial's Waterdown to Finch Project (the Project)
- Discussion on archaeology field work

Topic	Discussion
Location	• Meeting held at the MNCFN, Department of Consultation and Accommodation office, 4065 Hwy 6, Hagersville, ON N0A 1H0
Agenda	• Welcome • Introductions • Safety Moment • Overview of Waterdown to Finch Project • Overview of Archaeology Planning • Archaeology Draft Stage 1 Results • Planned Stage 2 Methods • Geotechnical Assessment • Meeting Adjourned
Materials	• Imperial's Sarnia Products Pipeline Waterdown to Finch Powerpoint presentation July 2018
Introduction	• Imperial (CP) opened the discussion by thanking everyone for the opportunity to meet again. We know you are very busy with the various projects that you are involved in. We appreciate the time that you have taken. We have been here previously to discuss the Waterdown to Finch Project. Thank you for accommodating the time with us again. We wanted to bring Past Recovery to meet with you, to make the connection and have an informal discussion on archaeology planning.

Topic	Discussion
	•
Project Overview	• Imperial (JM) provided a Project overview. Imperial's Sarnia Products Pipeline (SPPL) runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area. • SPPL is important infrastructure to the Greater Toronto and Hamilton Area (GTHA) • SPPL supplies a significant portion of refined product used at Toronto Pearson International Airport, including gasoline and diesel that keeps people, goods and services moving. • SPPL has operated in the region for many years. It has been in operation since the 1950s. The line is ~65 years old and as a proactive measure, Imperial is planning to replace approximately 63 km of the 12" line with new 12"pipe. The pipeline will continue to operate until the replacement segments are prepared for operation. The existing line will be cleaned, tested and deactivated in-place. • Imperial has initiated discussions with the Ontario Energy Board (OEB). The major regulatory process will be the filing of the leave to construct application with the OEB. • Imperial has kicked off engagement with regulators, landowners and Indigenous communities. At the same time, we have initiated the engineering design process. As a result of our early engagement, we look to incorporate feedback into the project design process. • We have started environmental field surveys to capture the field work during the seasonal windows. Field work is planned for summer and fall. Archaeology field work is timed for the summer/fall. • Overview of timelines (as described in the PowerPoint presentation), Spring 2018 project launch; Summer/Fall 2018 Community Information Sessions; Winter/Spring 2019 submission to OEB; Summer 2019 engineering design complete; Late Fall 2019 pre-construction communication. 2020 is the potential start date. • Monitored 24 hours a day, 365 days a year. The western portion of the line is flown every week; eastern portions that cannot be flown are ground patrolled daily. • There are two proposed types of construction methods: open cut construction and trenchless Horizontal Direction Drilling (HDD). JM indicated that notionally, HDD is planned for ~1/3 of the total line replacement. Construction method will be informed by geotechnical information and environmental considerations. Imperial will look to avoid major watercourses, major road crossings, provincially significant wetlands and important archaeological features by using HDD. • Imperial (JM) explained that the current pipeline will remain in operation until the new line is constructed, tested and put into service. The old pipeline will be deactivated and removed from service. It will be cleaned, filled with nitrogen (inert gas to detect pressure monitoring), maintained with cathodic protection, and monitored and left in place. Deactivation is proposed instead of removal to reduce impacts as there are other pipelines and infrastructure owned by other companies operating in the same corridor.
Archaeological Assessment	• Past Recovery (BK) provided a quick overview of the firm and archaeology experience in Ontario.

Topic	Discussion

	• BK provided an overview of the archaeological assessment planning. Draft Stage 1 report for the corridor is nearly complete pending final review. Imperial plans to provide to Indigenous communities for review and comment as well as to the MTCS.
	• BK noted that the western part of the corridor is mainly rural and the eastern part is more industrial/commercial/residential. ~2/3 of the corridor is on the existing Hydro One (HONI) corridor.
	• BK confirmed that through the Stage 1 review much of the study corridor contains archaeological potential for both pre-Contact and post-Contact archaeological resources.
	• BK confirmed that sections exhibiting areas of extensive subsurface disturbance and therefore no longer hold potential were identified in Stage 1.
	• BK confirmed that some sections have been subject to previous archaeological assessments that have cleared these areas of archaeological concerns.
	• BK confirmed that 11 registered archaeological sites were identified within, or in close proximity, to the project area including the Parsons site (AkGv-8).
	• BK stated that lands associated with the Niagara Escarpment and 15 major river crossings are considered to have a high potential for Indigenous archaeological sites;
	• BK stated that the land use history produced in the draft report has been informed by the archaeological record from a settler perspective. Imperial is seeking input from First Nations regarding your community's land use history and cultural narrative in order to provide a more inclusive context for the project. Imperial is also seeking advice on cultural places of concern to your community that may not have been identified in the draft Stage 1 report so that appropriate procedures and protocols are followed as the project progresses.
	• BK noted that communities with an interest in the project area are anticipated to include the following:
	  • Mississaugas of the New Credit First Nation
	  • Six Nations of the Grand River
	  • Huron-Wendat Nation
	  • Haudenosaunee Development Institute
	• Communities will have an opportunity to review and comment on the draft Stage 1 assessment report. Field Monitors will be included in the Stage 2 archaeological fieldwork.
	• BK noted that the proposed Stage 2 methodology and plan is comprehensive. Assessment of all areas of archaeological potential within the corridor will involve test pit shovel testing at 5 m intervals or field ploughing and surveying.
	• In addition to the Stage 2 archaeology fieldwork for the line, the trenchless HDD design methods require geotechnical assessment. Geotechnical assessment will start in the summer. We have met with the MTCS to confirm the archaeology pre-clearance requirements to support the geotechnical borehole investigation program.
	• There are approximately, 140 proposed geotechnical borehole locations to suppor the project, of which ~97 are located within areas of archaeological potential. Stage 2 testing at borehole locations in areas of archaeological potential will include the excavation of 1 to 4 test pits. Field monitors would be involved in this archaeology work.

Topic	Discussion
	• MNCFN (MD) noted that the MNCFN have over 45 FLR Monitors. • MNCFN (PE) noted that archaeology assessment should be done on temporary access alignments to the corridor. • Imperial confirmed that the access for construction has not yet been defined, but will be considered for archaeology based on Stage 1 results. Added that MTCS confirmed they do not require assessment along access to geotech locations due to lightweight equipment only being used. • MNCFN (PE) asked if within the corridor, does Imperial have a strategy to intensify archaeological assessment at key areas. • BK explained that test pits at borehole locations in proximity to known sites (e.g. the Parsons site) will be preceded by an intensification of a 1 x 1 m unit at each borehole location to avoid potential impacts. • MNCFN (PE) asked if Imperial plans to drill underneath all 11 sites identified in Stage 1? Imperial confirmed that only some of these sites are planned to be drilled currently, but drilling scope will be informed by the results of the Stage 2 assessment. • MNCFN (PE) asked how Imperial plans to deal with finding artifacts in previously disturbed areas? Their experience has been to treat these finds with CHVI, and MNCFN places value in recovering artifacts even in a disturbed state. • BK stated that this will be dealt with on a case by case basis and Imperial will need to develop protocols with MNCFN. • MNCFN (MD) asked what is Imperial's approach if behind schedule. MNCFN stressed that archaeological work will take time to properly mitigate and the work needs to be done well. There is a high likelihood of archaeological features in this area based on our experience working with other pipeline proponents. • Imperial (JM) responded that we appreciate the feedback. Imperial confirmed that regardless of schedule pressures, Imperial expects archaeologists and Field Monitors to maintain a standard of work consistent with the MTCS standards and Imperial would not ask consultants or Field Monitors to work beyond their means. If required, Imperial will bring on more resources, after ensuring they can also meet the expected standards of quality. • MNCFN (MD) expressed concerns about drilling underneath archaeological sites, specifically around spiritual concerns and potential for damage of site due to soil collapse. Imperial offered to provide maps, once available, showing drilling details (e.g. depth, angle of drill, soil type, etc.) for MNCFN review.
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Summary of Actions	Who
• Agreement signed. Deployment of MNCFN Field Liaison Monitors	

Potential topics to record for Isometrix reporting:

Topic	Discussion

☐	Accidents and Malfunctions	☐	Aquatic Resources and species
☐	Air Emissions and Noise	☒	Archaeology
☐	Alternatives	☐	Community Contribution Request
☐	Cultural Heritage Resources	☐	Groundwater
☐	Emergency Response	☒	Operational Issue
☒	Excavation/Damage Prevention/Pipeline Location		
☐	Right-of-Way/Access Agreement	☐	Traditional use
☐	Safety, Health and Environment	☐	Vegetation
☐	Socioeconomic (labour, economy, social)	☐	Wetlands
		☐	Wildlife and Habitat

Imperial

Imperial's Sarnia Products Pipeline

Waterdown to Finch Project



July 2018

Agenda

- Welcome/ Open Meeting
- Introductions
- Safety Moment
- Overview of Waterdown to Finch Project
- Overview of Archaeology Planning
  - Archaeology Draft Stage 1 Results
  - Planned Stage 2 Methods
  - Geotechnical Assessment
- Meeting Adjourned



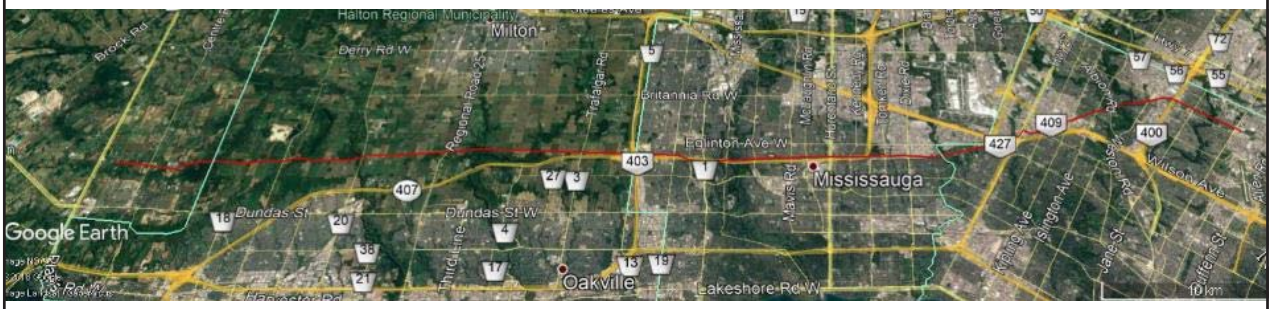
2

Safety Moment

3

Imperial's Sarnia Products Pipeline

- Imperial's Sarnia Products Pipeline (SPPL) runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area
- SPPL is important infrastructure to the Greater Toronto and Hamilton Area (GTHA)
  - SPPL supplies a significant portion of product used at Toronto Pearson International Airport, and gasoline and diesel that keeps people, goods and services moving
- SPPL has operated safety in the region for many years



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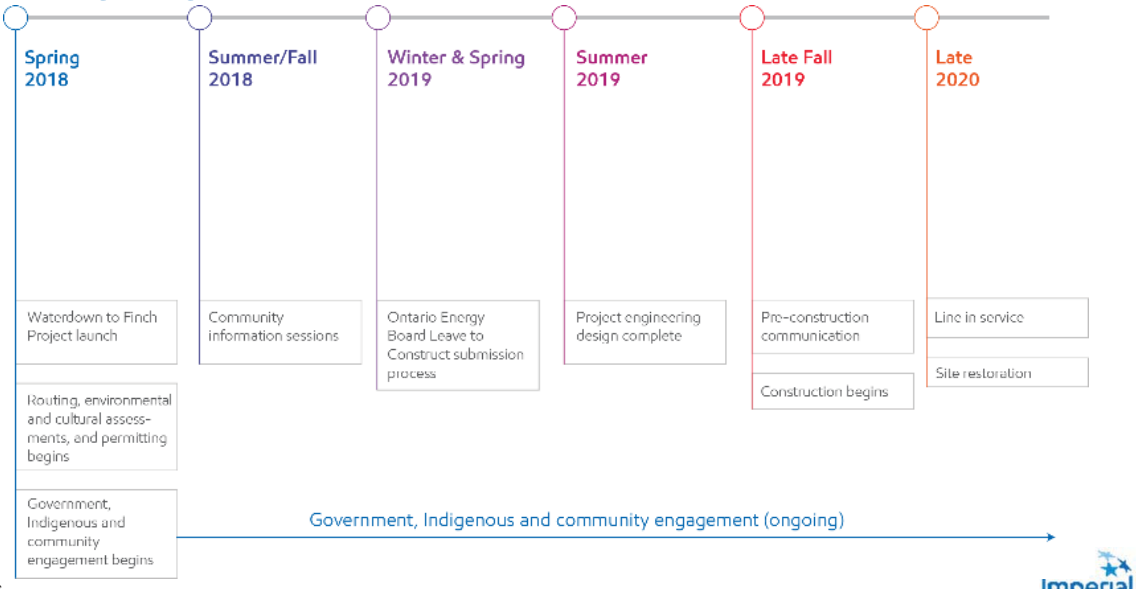
Continued safety and reliability for the GTHA

- Imperial is planning to replace approximately 63 km of the line with new pipe
- The pipeline will continue to operate safely until the replacement segments are prepared for operation
- Imperial will apply for a Leave to Construct from the Ontario Energy Board, which includes an assessment of environmental effects and engagement with landowners, communities and Indigenous groups
  - Imperial will respect landowners' property and will seek to minimize disruptions
  - Imperial recognizes the importance of collaboration with Indigenous groups, municipalities and other community stakeholders



5

Timeline*

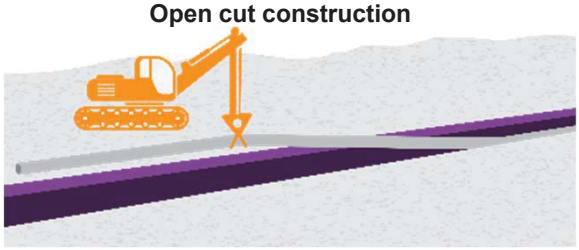


6 * Subject to regulatory and permitting approvals

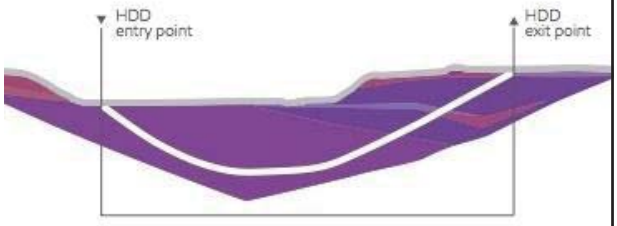
Minimizing construction impacts

- Imperial will work with landowners, permitting authorities and different levels of government so construction impacts are as limited as possible
- Engineers and environmental surveyors work together to develop the pipeline route that minimizes impact to the environment and community
- Deactivated pipe will be removed from service, cleaned, filled with nitrogen and left in place to reduce environmental impacts
- Based on engineering and environmental surveys, Imperial will perform one of two construction techniques:

Open cut construction



Trenchless technology



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Discussion

8

Imperial

Working Together on Archaeology Planning

9

Past Recovery
Archaeological Services Inc.

About Us

- Past Recovery, established as a partnership in 2000, has conducted over 300 Stage 1 through Stage 4 archaeological assessments in Ontario since incorporation in 2013
- Brenda Kennett, M.A. and Jeff Earl, M.Soc.Sc., principals, have over 50 years of combined experience
- Located in Perth, Ontario, Past Recovery conducts archaeological assessments across eastern Ontario, as well as undertaking projects further afield in central, northern and southwestern Ontario



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Imperial

Past Recovery
Archaeological Services Inc.

About Us

Relationships with:

- Algonquins of Ontario
- Williams Treaties First Nations
- Mohawk Council of Akwesasne
- Mohawks of the Bay of Quinte

- Jessalyn Miller, B.A., Staff Archaeologist, has also previously worked with Indigenous Field Liaison Representatives from MNCFN, Six Nations, HDI and Huron-Wendat Nation since 2013

Algonquins of Ontario

WILLIAMS TREATIES FIRST NATIONS

MOHAWK COUNCIL OF AKWESASNE

11

Imperial

Preliminary Archaeological Stage 1 Results

Archaeological Potential

- Much of the study corridor contains archaeological potential for both pre-Contact and post-Contact archaeological resources
- Sections of the corridor exhibit areas of extensive subsurface disturbance and therefore no longer hold potential
- Some sections have been subject to previous archaeological assessments that have cleared these areas of archaeological concerns



12

Imperial

Preliminary Archaeological Stage 1 Results

Archaeological Concerns

- 11 registered archaeological sites were identified within, or in very close proximity, to the project area including the Parsons site (AkGv-8) and 5 other pre-Contact Indigenous sites (a further 2 with cultural tradition unknown but likely Indigenous)
- Lands associated with the Niagara Escarpment and 15 major river crossings are considered to have a high potential for Indigenous archaeological sites
- The Credit River Valley, is a designated cultural landscape
- Historical mapping between 1858 and 1878 indicates historical settlements and associated features, including a small number of pioneer cemeteries, on lots associated with the corridor



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Imperial

Preliminary Archaeological Stage 1 Results

Historical Context and Cultural Overview

- The land use history produced in the draft report has been informed by the archaeological record from a settler perspective
- We are seeking input from First Nations regarding your community's land use history and cultural narrative in order to provide a more inclusive context for the project
- We are also seeking advice on cultural places of concern to your community that may not have been identified in the draft Stage 1 report so that appropriate procedures and protocols are followed as the project progresses



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Indigenous Engagement

- Communities with an interest in the project area are anticipated to include the following:
  - Mississaugas of the New Credit First Nation
  - Six Nations of the Grand River
  - Huron-Wendat Nation
  - Haudenosaunee Development Institute
- Communities will have an opportunity to review and comment on the draft Stage 1 assessment report
- Field Liaison Representative Monitors will be included in the Stage 2 archaeological fieldwork



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Imperial

Proposed Archaeological Stage 2 Methods

<u>Project Impact Mitigations</u>

- Assessment of all areas of archaeological potential through shovel testing at 5 m intervals or pedestrian survey of ploughed fields at 5 m intervals
- Trenchless HDD boring at major river crossings
- Trenchless HDD boring beneath the Parsons site (AkGv-8) to reduce impacts

<u>Factors Limiting Archaeological Potential</u>

- Visible disturbance into subsoils (described in Stage 1)
- Soil disturbances associated with the placement of previous utilities
- Areas of previous archaeological assessments and cleared of further archaeological concerns
- Permanently wet areas



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Imperial

Geotechnical Assessment

- ~140 geotechnical bore hole locations within existing utility corridor
  - ~97 are located within areas of archaeological potential
- Exiting infrastructure will be used as much as possible for access (e.g., roads, driveways, paths, etc.)
- No soil stripping
- Equipment:
  - Low ground pressure wide track or tired rigs (hollow stem auger)
  - Tired support vehicle
- Drilling scheduled July to September 2018
- Borehole locations to be cleared of archaeological concern prior to drilling via targeted Stage 2 archaeological assessment



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Discussion

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For more information

W: imperialoil.ca/waterdowntofinch
T: 416.586.1915
E: questions@imperialon.ca

19

Ministry of Energy, Northern Development and Mines

77 Grenville Street
6th Floor
Toronto ON M7A 2C1

Tel: (416) 325-6544

Ministère de l'Énergie, du Développement du Nord et des Mines

77, rue Grenville
6e étage
Toronto ON M7A 2C1

Tél: (416) 325-6544

Ontario

Indigenous Energy Policy

VIA EMAIL

September 25, 2018

Chief R. Stacey Laforme
Mississauagas of the New Credit First Nation
2789 Mississauga Road R.R. #6
Hagersville, ON N0A 1H0

Re: Imperial Waterdown Pipeline Project

Dear Chief Laforme:

This letter is to notify you that the Ministry of Energy, Northern Development and Mines on behalf of Ontario has delegated the procedural aspects of consultation to Imperial Oil Limited for its' proposed Imperial Waterdown Pipeline Project in relation to the Ontario Energy Board's Leave to Construct approval process.

Imperial Oil is planning to redevelop a pipeline in order to provide fuel across the Greater Toronto and Hamilton Area, including jet fuel at Toronto Pearson International Airport, as well as gasoline and diesel fuel. The project consists of approximately 63 kilometers of the existing line with new pipe. The proposed pipeline will commence at Waterdown Station [43.33500° N, 79.93248° W], and will end at the company's terminal storage facility at North York's Finch Terminal [43.76652° N, 79.48878° W]. If approved, construction is anticipated to begin in 2019

I encourage representatives of your community to participate in efforts made by Imperial Oil Limited to consult your community on its proposed project so that you can receive project information and understand if there are any potential impacts on Aboriginal or treaty rights. The consultation process is an opportunity to provide your community's feedback to Imperial Oil Limited and the Crown, including any suggestions or proposals your community might have for mitigating, avoiding or accommodating any potential impacts to Aboriginal or treaty rights. Ministry officials are also available should you wish to contact the Crown directly. Please note that none of the foregoing should be taken to imply approval of this project.

Should you or any members of your community have questions regarding the material above, please contact Raina Crasto at 416-326-4571 or raina.crasto@ontario.ca and Shannon McCabe at 416-212-6704 or shannon.mccabe@ontario.ca.

Sincerely,



Morgan Owen
A/Manager
Indigenous Energy Policy

C: Ontario Energy Board
Ontario Pipeline Coordinating Committee (OPCC)
Jessie Malone, Environmental and Regulatory Advisor, Safety Security Health and Environment, Imperial Oil Limited

Waterdown to Finch Project - Stage 1 Archaeological Assessment

Jennifer Liddell
To: Mark.LaForme@mncfn.ca, Megan DeVries

Thursday, Sep 27th, 2018
12:48 PM

Please find attached a copy of the Stage 1 Archaeological Assessment conducted by Past Recovery Archaeological Consultants for the Proposed Waterdown to Finch Project on behalf of Imperial Oil Limited. The present assessment has identified a number of registered archaeological sites within or in close proximity to the study corridor.

Imperial is seeking Indigenous review of the draft report to ensure that any traditional knowledge/information regarding traditional use sites, sacred sites, or other sites is reflected in the background documentation and the determination of archaeological potential. Let us know if you have any comments or questions, or any additional information that you feel may help inform the Stage 2 Assessment. A Stage 2 Archaeological Assessment is currently being undertaken to identify any as-yet unknown archaeological sites that may be impacted by the project.

Please provide a response by November 1, 2018 in order to inform the current field program.

Respectfully,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
519 339 2265 Tel
kelly.williams@esso.ca
Imperialoil.ca

1Attachments

Download All

E.1 WFP Stage 1 Archaeological Assessment_06Sept2018.pdf

Jim Chan

To: Jim Chan (jim.chan@erm.com)
Subject: FW: Waterdown to Finch Stage 1 Report

From: Malone, Jessie M
Sent: Friday, November 2, 2018 5:30 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Subject: FW: Waterdown to Finch Stage 1 Report

fyi

From: Megan DeVries [mailto:Megan.DeVries@mncfn.ca]
Sent: Friday, October 19, 2018 8:18 AM
To: Daniel Walker <Daniel.Walker@erm.com>; Brenda Kennett <b.kennett@pastrecovery.com>
Cc: Fawn Sault <Fawn.Sault@mncfn.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Liddell, Jennifer H <jennifer.h.liddell@esso.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: Waterdown to Finch Stage 1 Report

Good morning,

MNCFN has reviewed the Stage 1 archaeological assessment for the Waterdown to Finch project. While we have no major concerns regarding the report, we do have some small comments or questions for clarification.

1. While MNCFN understands and acknowledges that the Parsons site is an ancestral Huron-Wendat village, the Waterdown to Finch project and the Parsons site are located within MNCFN treaty territory. It is imperative, and proper, that Imperial Oil and Past Recovery understand that MNCFN must also participate in all fieldwork and monitoring required for this site and be engaged on mitigation strategies developed for its long-term care and protection.
2. Are all access routes and temporary work spaces included in the current study area or are these yet to be determined? If access routes and temporary work spaces are necessary, and were not included in the current Stage 1-2 assessment, they will require assessment at a future date prior to their use and any potential impacts.
3. Will the entirety of the study area and pipeline corridor, as outlined in the Stage 1 report, be subject to Stage 2 assessment or has the size of the study area already been reduced for the Stage 2 survey work?
4. On the report that was provided to us, archaeological sites are identified on the mapping, which is appreciated for our records but should not be included in a publically accessible report. These should be redacted and relocated to the supplementary documentation if this version is the one to be submitted to the MTCS or made available during public consultations.

I look forward to further discussing the Stage 1 assessment at a future meeting and receiving an update regarding the progress of the Stage 2 fieldwork.

Sincerely,
Megan.

Megan DeVries, M.A.
Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
Mississaugas of the New Credit First Nation (MNCFN)

4065 Highway 6 North, Hagersville, ON N0A 1H0
P: 905-768-4260 | M: 289-527-2763
http://www.mncfn.ca

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Imperial

Waterdown to Finch Pipeline Project
November 13, 2018
Meeting with MNCFN Summary Notes

**Please note that these meeting notes provide a summary of the discussion; however, these are not detailed minutes of the meeting. While we have endeavored to document the main points, some discussion items may not be included.*

Participants

Mississauga New Credit First Nation (MNCFN)

- Megan DeVries (MD), Archaeological Operations Supervisor, Department of Consultation and Accommodation
- Fawn Sault (FS), Consultation Manager
- Mark LaForme (ML), Director, Department of Consultation and Accommodation
- Hilary Harrison (HH)

Imperial

- Kelly Williams, Indigenous Relations (KW)
- Jessie Malone, Environment and Regulatory Advisor (JM)

ERM

- Dan Walker, Archaeologist (DW)
- Jim Chan, Senior Consultant (JC)

Past Recovery

- Brenda Kennett, Archaeologist (BK)

Meeting Objectives

- Consultation meeting to respond to MNCFN's feedback on Stage 1 Archaeological Assessment Report
- Feedback on Field Monitoring Program
- Feedback on continued consultative approach and MNCFN preferences
- Early notification of Leave to Construct application

Topic	Discussion
Location	• Teleconference call
Agenda	• Welcome • Introductions • Stage 1 Archaeological Assessment Report Comments • HDD Scope and Archaeology • MNCFN Feedback on Field Monitoring Program • Next Steps for Continued Project Engagement/Application Timeline • Meeting Adjourned
Introductions	• Imperial (KW) - We are pleased to have the opportunity to regroup and connect with MNCFN again. KW noted that she had an opportunity to participate in the archaeological assessment field work and was impressed by the knowledge of the MNCFN Monitors. The Project team is appreciative to have MNCFN part of the Field Monitoring program. • MNCFN (MD) appreciated the comment. The MNCFN Field Monitors are enjoying the experience and the field Project team is very welcoming.
Archaeological Assessment Planning	• On October 19, 2018, MNCFN provided comments to the Stage 1 Archaeological Assessment. MD provided a general comment that the Stage 1 report was very

Topic	Discussion
	comprehensive and was well done. Past Recover (BK) appreciated the comment. This is a testament to the comprehensive scope of the archaeological assessment. • MNCFN raised three minor points for clarification: • While MNCFN understands and acknowledges that the Parsons site is an ancestral Huron-Wendat village known archaeological site, the Waterdown to Finch Project and the Parsons site are located within MNCFN traditional territory. • Past Recovery (BK) responded that we recognize the Parson site is within shared traditional territory and recognize the MNCFN traditional territory. Imperial will revise the wording in the Stage 1 Report to acknowledge MNCFN's traditional territory. Imperial fully understands that MNCFN will participate in ongoing archaeological assessment planning for the Parson site. • MNCFN (MD) - Are all access routes and temporary work spaces included in the current study area or are these yet to be determined? • BK responded that most of the temporary work spaces and access routes relate to the placement of the HDD and HD Bore path. As project planning and design advances and additional temporary work space or access route for construction is known, the Stage 1 study area will be revised if necessary, and additional Stage 2 assessment undertaken as appropriate. • MD responded that this makes sense and is satisfied with the clarification. • MNCFN (MD) asked if the size of the Stage 2 assessment is smaller than Stage 1. • BK responded that the Stage 1 study area was purposely set larger to capture the pipeline corridor and in anticipation of potential temporary workspaces. The Stage 2 methodology is related to the Project footprint and is focused on the defined corridor (typically 25m – 35 m wide) and larger temporary workspaces. As mentioned above, as additional temporary work space and access routes for HDD and HD Bore requirements are advanced, the Stage 2 will be altered to address this. • MD was satisfied with the clarification. • BK noted that in consultation with MTCS, access routes for the geotechnical investigations are being mitigated in areas of archaeological potential through the use of matting and light-weight equipment. Any Project additional temporary work spaces and access routes determined to have archaeological potential will be subject to archaeological assessment. • MNCFN (MD) - Mapping of archaeological sites is appreciated for our review but would be inappropriate for the public. • BK agreed. BK responded that Imperial will follow MTCS protocols and will submit a redacted version of the Stage 1 Archaeological Assessment report that is publically available. Sensitive information will not be made publically available and will be included as a supplemental document filing.

Topic	Discussion
Stage 2 Field Monitoring Program	• Imperial (KW) asked, from MNCFN's perspective, how is the Field Monitoring Program going? • MD noted that overall the Field Monitoring Program has been a positive experience for Monitors. Project team members have worked well with MNCFN Monitors. • An area to review/collaborate on is morning deployment. At any given time, MNCFN has 45 potential Monitors in the field on 20+ projects. Suggest designating one or a couple of morning meeting muster points and then proceeding as a group to the field start point. It has been challenging at times to have daily coordination notifications with changes in the morning location. This is an area to revisit for the next field season. • KW - we recognize and appreciate the time you are taking with us given the many projects on the go.
HDD Archaeology	• Imperial (JM and BK) shared further information on planned HDD paths. • Imperial consulted with MTCS to address planned HDD paths. For HDD paths, the Stage 2 assessment (test pitting and/or pedestrian survey) is covering the entire temporary work space associated with the HDD entry and exit pads. Typically, this is when the HDD path is the centerline of the temporary work space. In addition, the first and last 50 m of the HDD path is being tested in the few instances where the temporary work space does not entirely cover these sections of the HDD path. Additional archaeological testing would be conducted in the future if geotechnical results are insufficient to support the working assumption that the HDD paths will be deep enough/in stable enough soils to avoid any potential slumping and/or the possibility of future integrity digs from the surface. In addition, if cultural material is identified during the Stage 2 assessment of the temporary work space/HDD paths, appropriate mitigation would be undertaken in consultation with all stakeholders. This would involve additional archaeological investigation and/or extending the HDD path and moving the temporary work space to avoid disturbing the archaeological site. • MD requested a list of all HDD locations depicted on a map so that MNCFN can review the locations from an archaeological and waterway perspective. • JM responded that a follow-up action item will be to provide MNCFN a Project map with the HDD location. . • MD asked if HDD is proposed for the Parson site. If so, MNCFN would like further discussion on the way forward at this site. • BK responded that yes, that is the preliminary plan and further discussions will take place for this site. • MD noted that as the 2018 field season winds down, MNCFN will require a new 2019 agreement for field work. JM – Imperial noted yes, that is correct.

Topic	Discussion
Leave to Construct	• JC – provided an overview of the leave to construct process. The Ontario Energy Board (OEB) is the provincial energy regulator. Imperial is required to prepare and file an application for a leave to construct approval with the OEB for the Project. Imperial is consulting early and working with regulators, stakeholders, municipalities and Indigenous communities. Consultation opportunities are afforded by the OEB however, Imperial's approach is that consultation is ongoing and based on the preferences of the communities. Comments can be provided at an anytime to be addressed. • Imperial is planning to submit the leave to construct application in Q1 2019 and will ensure that MNCFN are notified in advance and kept up to date on the regulatory process.
Consultation	• KW - could you tell us if you have other consultation expectations in accordance with protocols? Do you have a preference for periodic updates? • MD - yes, we wish to be consulted on an ongoing basis. MNCFN should be notified, in advance, before anything happens or with changes to the Project. To date there is no issue with Imperial's consultative approach and effort. • Field involvement and ongoing input/ feedback is very important. • We would be interested in reviewing reports as they become available as part of the regulatory process. • MNCFN (ML) – in addition to what the others have noted, MNCFN would like to commend Imperial on the excellent consultation process. Thank you very much for this. When proponents approach Projects in this manner, things go much smoother. We commend Imperial on the work you are doing with New Credit.

Summary of Actions	Who
• MNCFN requests a list of all HDD locations depicted on a map so that MNCFN can review the locations from an archaeological and waterway perspective. Imperial to provide.	KW
•	
•	
•	

Potential topics to record for Isometrix reporting:

☐ Accidents and Malfunctions
☐ Air Emissions and Noise
☐ Alternatives
☐ Aquatic Resources and species
☒ Archaeology
☐ Community Contribution Request

Topic	Discussion
☐ Cultural Heritage Resources ☐ Emergency Response ☐ Excavation/Damage Prevention/Pipeline Location	☐ Groundwater ☐ Operational Issue
☐ Right-of-Way/Access Agreement ☐ Safety, Health and Environment ☐ Socioeconomic (labour, economy, social)	☐ Traditional use ☐ Vegetation ☐ Wetlands ☐ Wildlife and Habitat

Waterdown to Finch General Inquiries
questions@imperialon.ca
416.586.1915

May 22, 2018

Lonny Bomberry
Lands & Resources
Six Nations of the Grand River
2498 Chiefswood Road,
P.O. Box 5000
Oshweken, Ontario
N0A 1M0

Dear Mr. Bomberry,

Imperial's Sarnia Products Pipeline (SPPL) is important infrastructure that provides fuels used by households and businesses across the Greater Toronto and Hamilton Area. This includes a significant portion of jet fuel at Toronto Pearson International Airport, as well as gasoline and diesel fuel that keeps people, goods and services moving throughout the region.

Operating safely in the region for many years, Imperial is planning to replace approximately 63-kilometres of the line with new pipe. This section runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area.

The Waterdown to Finch Project is proactively replacing a segment of pipeline to deliver continued safety and reliability.The existing pipeline will continue to operate until the project is complete.

Environmental and cultural assessments will start in the spring of 2018. Subject to provincial regulatory review and receipt of all permits, Imperial anticipates construction to begin in 2019.

Most replacement work will take place in close vicinity to the existing pipeline. Imperial representatives will also be communicating with landowners where proposed activities may be taking place in the coming weeks. Over the duration of the project, we will work collaboratively and communicate proactively to minimize construction impacts.

Please accept this letter as a formal notification of Imperial's Waterdown to Finch Project. Imperial would like to schedule a meeting to discuss the Waterdown to Finch Project, share information and answer questions. If you would like to learn more about the Waterdown to Finch Project, please contact us at questions@imperialon.ca or leave a message at 416-586-1915.

In addition to the project brochure and meeting offer, you can also visit our project website at imperialoil.ca/waterdowntofinch for an overview of the proposed replacement work, including project facts, work schedule, construction practices and community engagement efforts.

We look forward to connecting.

Sincerely,

Christopher Plain
Indigenous Relations Lead – Ontario Region
Imperial Oil Limited

Imperial

Waterdown to Finch Pipeline Project
June 15, 2018
Six Nations Meeting Summary Notes

**Please note that these meeting notes provide a summary of the discussion; however, these are not detailed minutes of the meeting. While we have endeavored to document the main points, some discussion items may not be included.*

Participants	
Organization Name • Paul General, Matt Jacko, Waylon Bomberry, and Dawn LaForme, Lands and Resources Department, Six Nations of the Grande River (SN)	*Imperial* • Elias Majdalani, Project Director (EM) • Robert Ballinger, Area Manager, East Canada, Canada Fuels (RB) • Chris Plain, Indigenous Relations Lead – Ontario Region (CP) • Leanne Dohy, Socio-economic Advisor (LD) *ERM* • Curtis Campbell, Project Director (CC) Jim Chan, Senior Consultant (JC)

Meeting Objectives

- Early Notification to Six Nations
- Overview presentation of Imperial's Waterdown to Finch Project (the Project)
- Discussion on Six Nation's interests in archaeology field work

Topic	Discussion
Location	• Meeting held at Lands and Resources Department of the Six Nations, 2498 Chiefswood Road, Ohsweken, Ontario.
Agenda	• Meeting with Six Nations Lands and Resources Department to introduce the Project and discuss archaeology field work.
Materials	• Imperial's Sarnia Products Pipeline Waterdown to Finch Powerpoint presentation June 2018. • Six Nations shared the Traditional Territory Map (on cover of booklet) and booklet: • http://www.sixnations.ca/SNGlobalSolutionsBookletFinal.pdf
Introduction	• Imperial (CP) opened the discussion by thanking everyone for the opportunity to meet. Work is ongoing with Imperial's Credit River Project with the involvement of the Six Nations FLR Monitors. Today, we are here to talk about the Waterdown to Finch Project. • Six Nations shared Traditional Territory Map (on cover of booklet) and booklet: • http://www.sixnations.ca/SNGlobalSolutionsBookletFinal.pdf
Safety Moment	• Imperial (RB) described Imperial's strong focus on safety. • Imperial (RB) described proactive measures, safety focus, to replace a segment of the existing line from Waterdown station to Finch terminal. Imperial uses in-line inspection

Topic	Discussion
	tools, which are sent from one side of the line to the other and measures the inside diameter of the pipeline and assesses the integrity of the line. • Monitored 24 hours a day, 365 days a year. • Fly the line every week; portions that can't be flown are ground patrolled. • Entire line walked in a periodic frequency. • Replacement segment is like for like, meaning 12" in diameter pipe for new 12" pipeline over a 63 kilometre segment. Product moved is the same and the line will continue to operate, to minimize disruption during construction.
Overview	Overview • Imperial (EM) is consulting with regulators and different levels of government to plan the Waterdown to Finch Project so that construction impacts are limited and mitigation measures proposed. Imperial will require a Leave to Construct approval from the Ontario Energy Board, including a thorough assessment of the project and potential environmental effects. • Duty to Consult - Imperial will consult Indigenous communities; incorporate feedback as the design is advanced. • Overview of timelines (as described in PowerPoint and brochure), Spring 2018 project launch; Summer/Fall 2018 Community information sessions; Winter/Spring 2019 submission to OEB; Summer 2019 engineering design complete; Late Fall 2019 pre-construction communication. • Summer/Fall 2018 – information session to gather early input in July and November 2018. Construction timing will be dependent on wildlife construction timing windows. • Majority of the Project is on an existing pipeline corridor. 2/3 will be through the existing HONI corridor. Following an existing line is a positive aspect and provides benefits of minimizing impacts. Relationship • Imperial (CP) noted that consultation is one piece of a larger relationship. Imperial is involved with the community in work force development initiatives and the Science Education Employment Development (SEED).
Deactivation of current line	• Six Nations asked what will Imperial do with the deactivated line? • Imperial (EM) responded that the current pipeline will be deactivated and removed from service. It will be cleaned, filled with nitrogen, maintained with cathodic protection, and monitored and left in place. • In addition, along the HONI corridor, there are other lines and infrastructure. We do not want to impact the other lines. Deactivation is undertaken to reduce environmental impacts (soil stability, slope stabilization, and settlement issues).
Construction technology	• Six Nations asked if installation methods will be open cut or HDD? • Imperial (EM) responded that both technologies will be deployed. • Trenchless technology, e.g., horizontal directional drill (HDD) is a method of installing underground pipe using a drilling rig at the surface level. It is best used at

Topic	Discussion
	sensitive areas, or in dense residential or commercial areas, major watercourse crossings, etc. • Open cut construction is a method of pipeline installation. Pipe will be lowered into a trench and covered for protection. We are conducting geotechnical, environmental, and archaeology surveys to help determine the appropriate design consideration for open cut and HDD.
Wildlife	• Six Nations asked and Imperial/ERM agreed to share findings of information back to Six Nations from the wildlife and vegetation field surveys. Six Nations don't have monitors to accompany the wildlife field team. • Imperial/ERM action to share findings of wildlife and vegetation reports with Six Nations.
Archaeology	Archaeology • ERM (CC) indicated that the Ontario Energy Board is the main regulatory body. • The Ontario Pipeline Coordinating Committee (OPCC) will be consulted; these are the provincial agencies, including the Conservation Authorities and Niagara Escarpment Commission, that have input as part of the leave to construct application. • Six Nations requested a meeting with Past Recovery, the identified archaeology firm, to build relationships and trust. • Joanne Thomas is the Six Nations archaeology lead. Imperial and ERM to set-up a subsequent meeting with Six Nations and Past Recovery archaeologist. • Imperial asked, what is the expected involvement on a geographical basis for the archaeology field work. • Six Nations replied involvement of Six Nations Field Monitors for archaeology for the entire alignment. • Imperial (CP) commented that it is important for us to be in the community and to share information. We would be willing to come back again and we have a commitment to participation of Six Nations Field Liaison Representative (FLR) Monitors to observe archaeology field work. • We have an agreement with Imperial and Six Nations on the Credit River crossing Project for Six Nations FLR Monitors. Glad to hear this is working and we want to set-up a similar agreement process for the Waterdown to Finch Project archaeology field work. • For the Waterdown Finch Project, ERM will be the consultant doing the work. CP asked if Imperial has permission to share the FLR agreement. Six Nations response was yes and CP will share the FLR Monitor agreement for archaeology work with ERM. • Imperial (CP) noted that once reports are generated, we will share them with the communities. Commitments will be followed based on your preference and working with your Chief and Council. We respect the autonomy of each Nation and will work respectfully, including with your neighbours (MNCFN). We appreciate everything and we know that there are many things/priorities going on in the community.
Trees	• Six Nations asked if trees need to be cut?

Topic	Discussion
	• Imperial (EM) replied that yes. For safety considerations, some trees may need to be cut, especially if grown within the right-of-way. Imperial and Six Nations discussed that there is a replacement ratio for trees. We will need to look for the right location for offsets and further discussions will be warranted once survey reports are generated.
Other	• ERM asked if there are specific uses or wildlife/vegetation that we should be cognizant about? • Deer hunting is popular on reserve and off reserve across Six Nations territory. Endangered and threatened turtle species and fish species (less of a concern if using HDD technology under the stream) • Six Nation FLR Monitor participants will be able to assist with potentially spotting medicinal/cultural plants during the archaeology field work.

Summary of Actions	Who
• Six Nations requested a follow-up meeting with Past Recovery, archaeologists. [Subsequent meeting with Past Recovery held on July 19, 2018]	CP
• ERM to work with Six Nations to establish agreement for FLR Monitor archaeology field work. [Subsequent to meeting, agreement established with Six Nations for Field Monitors]	CP
• Imperial/ERM action to share findings of wildlife and vegetation reports with Six Nations.	CP

Potential topics to record for Isometrix reporting:

☐ Accidents and Malfunctions
☐ Air Emissions and Noise
☐ Alternatives
☐ Aquatic Resources and species
☒ Archaeology
☐ Community Contribution Request
☐ Cultural Heritage Resources
☐ Emergency Response
☐ Excavation/Damage Prevention/Pipeline Location
☐ Groundwater
☐ Operational Issue
☐ Right-of-Way/Access Agreement
☐ Safety, Health and Environment
☐ Socioeconomic (labour, economy, social)
☒ Traditional use
☒ Vegetation
☐ Wetlands
☒ Wildlife and Habitat

Imperial

Waterdown to Finch Pipeline Project
July 19, 2018
Meeting with Six Nations Summary Notes

**Please note that these meeting notes provide a summary of the discussion; however, these are not detailed minutes of the meeting. While we have endeavored to document the main points, some discussion items may not be included.*

Participants

Six Nations

- Lonny Bomberry, Director Lands and Resources (LB)
- Joanne Thompson, Archaeology Supervisor (JT)
- Paul General, Wildlife Office (PG)
- Waylon Bomberry, Wildlife Office (WB)

Imperial

- Chris Plain, Indigenous Relations Lead – Ontario Region (CP)
- Kelly Williams, Indigenous Relations (KW)
- Leanne Dohy, Socio-economic Advisor (LD)
- Jessie Malone, Environment and Regulatory Advisor (JM)

ERM

- Jim Chan, Senior Consultant (JC)

Past Recovery

- Brenda Kennett, Archaeologist (BK)

Meeting Objectives

- Overview presentation of Imperial's Waterdown to Finch Project (the Project)
- Discussion on archaeology field work

Topic	Discussion
Location	• Meeting held at Lands and Resources Department of the Six Nations, 2498 Chiefswood Road, Ohsweken, Ontario.
Agenda	• Welcome • Introductions • Safety Moment • Overview of Waterdown to Finch Project • Overview of Archaeology Planning • Archaeology Draft Stage 1 Results • Planned Stage 2 Methods • Geotechnical Assessment • Meeting Adjourned
Materials	• Imperial's Sarnia Products Pipeline Waterdown to Finch Powerpoint presentation July 2018
Introduction	• Imperial (CP) opened the discussion by thanking everyone for the opportunity to meet again. Since the last time we met, wanted to bring Past Recovery to meet with you, as requested, to make the connection. We have signed the agreement for Six Nations Field Monitor participation. • CP explained that at the community's wishes, we are willing to come meet the community and keep lines of communication open. We will be holding an Info Session in

Topic	Discussion
	nearby Hamilton next week and extended a courtesy invitation. Again, we are willing to come to the Six Nations community and provide information as well, at your discretion.
Project Overview	• Imperial (JM) provided a Project overview. Imperial's Sarnia Products Pipeline (SPPL) runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area. • SPPL is important infrastructure to the Greater Toronto and Hamilton Area (GTHA) • SPPL supplies a significant portion of refined product used at Toronto Pearson International Airport, including gasoline and diesel that keeps people, goods and services moving. • SPPL has operated in the region for many years. It has been in operation since the 1950s. The line is ~65 years old and as a proactive measure, Imperial is planning to replace approximately 63 km of the 12" line with new 12"pipe. The pipeline will continue to operate until the replacement segments are prepared for operation. The existing line will be cleaned, tested and deactivated in-place. • Imperial has initiated discussions with the Ontario Energy Board (OEB). The major regulatory process will be the filing of the leave to construct application with the OEB. • Imperial has kicked off engagement with regulators, landowners and Indigenous communities. At the same time, we have initiated the engineering design process. As a result of our early engagement, we look to incorporate feedback into the project design process. • We have started environmental field surveys to capture the field work during the seasonal windows. Field work is planned for summer and fall. Archaeology field work is timed for the summer/fall. • Overview of timelines (as described in the PowerPoint presentation), Spring 2018 project launch; Summer/Fall 2018 Community Information Sessions; Winter/Spring 2019 submission to OEB; Summer 2019 engineering design complete; Late Fall 2019 pre-construction communication. 2020 is the potential start date. • Monitored 24 hours a day, 365 days a year. The western portion of the line is flown every week; eastern portions that cannot be flown are ground patrolled daily. • There are two proposed types of construction methods: open cut construction and trenchless Horizontal Direction Drilling (HDD). JM indicated that notionally, HDD is planned for ~1/3 of the total line replacement. Construction method will be informed by geotechnical information and environmental considerations. Imperial will look to avoid major watercourses, major road crossings, provincially significant wetlands and important archaeological features by using HDD. • Imperial (JM) explained that the current pipeline will remain in operation until the new line is constructed, tested and put into service. The old pipeline will be deactivated and removed from service. It will be cleaned, filled with nitrogen (inert gas to detect pressure monitoring), maintained with cathodic protection, and monitored and left in place. Deactivation is proposed instead of removal to reduce impacts as there are other pipelines and infrastructure owned by other companies operating in the same corridor.
Archaeological Assessment	• Past Recovery (BK) provided an overview of the firm and archaeology experience in Ontario.

Topic	Discussion

	• BK provided an overview of the archaeological assessment planning. Draft Stage 1 report for the corridor is nearly complete pending final review. Imperial plans to provide to Indigenous communities for review and comment as well as to the MTCS.
	• BK noted that the western part of the corridor is mainly rural and the eastern part is more industrial/commercial/residential. ~2/3 of the corridor is on the existing Hydro One (HONI) corridor.
	• BK confirmed that through the Stage 1 review much of the study corridor contains archaeological potential for both pre-Contact and post-Contact archaeological resources.
	• BK confirmed that sections exhibiting areas of extensive subsurface disturbance and therefore no longer hold potential were identified in Stage 1.
	• BK confirmed that some sections have been subject to previous archaeological assessments that have cleared these areas of archaeological concerns.
	• BK confirmed that 11 registered archaeological sites were identified within, or in close proximity, to the project area including the Parsons site (AkGv-8).
	• BK stated that lands associated with the Niagara Escarpment and 15 major river crossings are considered to have a high potential for Indigenous archaeological sites;
	• BK stated that the land use history produced in the draft report has been informed by the archaeological record from a settler perspective. Imperial is seeking input from First Nations regarding your community's land use history and cultural narrative in order to provide a more inclusive context for the project. Imperial is also seeking advice on cultural places of concern to your community that may not have been identified in the draft Stage 1 report so that appropriate procedures and protocols are followed as the project progresses.
	• BK noted that communities with an interest in the project area are anticipated to include the following:
	  • Mississaugas of the New Credit First Nation
	  • Six Nations of the Grand River
	  • Huron-Wendat Nation
	  • Haudenosaunee Development Institute
	• Communities will have an opportunity to review and comment on the draft Stage 1 assessment report. Field Monitors will be included in the Stage 2 archaeological fieldwork.
	• BK noted that the proposed Stage 2 methodology and plan is comprehensive. Assessment of all areas of archaeological potential within the corridor will involve test pit shovel testing at 5 m intervals or field ploughing and surveying.
	• In addition to the Stage 2 archaeology fieldwork for the line, the trenchless HDD design methods require geotechnical assessment. Geotechnical assessment will start in the summer. We have met with the MTCS to confirm the archaeology pre-clearance requirements to support the geotechnical borehole investigation program.
	• There are approximately 140 proposed geotechnical borehole locations to support the project, of which ~97 are located within areas of archaeological potential. Stage 2 testing at borehole locations in areas of archaeological potential will include the excavation of 1 to 4 test pits. Field monitors would be involved in this archaeology work.

Topic	Discussion
	• BK explained that Imperial's proposed approach for boreholes in proximity to known archaeology sites (such as the Parsons site) is for a 1 x 1 m unit to precede the drilling at each of the borehole locations to avoid potential impacts. • Six Nations (JT) explained that Six Nations Field Monitors have taken training and will take the Imperial online H&S course. Imperial confirmed that we will provide link to all required online training. • Six Nations (JT) confirmed Field Monitor participation for archaeology in advance of the geotech program (1 monitor) and for participation in the full Stage 2 field program (2 monitors). Monitors are trained and are able to dig test pits, field walk, put in a grid. • Six Nations (PG) commented that traditional knowledge locations would be kept with the community and not shared. The onsite Field Monitors will have a role to report back to the Six Nations Lands office in the event of locating medicinal plants of interest to Six Nations. • Six Nations (JT) asked if Imperial would be willing to share the results on the environmental field surveys (e.g. plants that are identified). Imperial confirmed that this can be provided once all surveys are complete. • Six Nations (JT) is interested in knowing locations of Cattails and Bullrush vegetation.
	•

Summary of Actions	Who
• Agreement signed. Prepare for deployment of Six Nations Field Monitors	
• Imperial to provide link to online training requirements.	CP
• Imperial to provide results of biophysical environmental field surveys once complete.	JM

Potential topics to record for Isometrix reporting:

☐ Accidents and Malfunctions
☐ Air Emissions and Noise
☐ Alternatives
☐ Aquatic Resources and species
☒ Archaeology
☐ Community Contribution Request
☐ Cultural Heritage Resources
☐ Emergency Response
☒ Excavation/Damage Prevention/Pipeline Location
☐ Groundwater
☒ Operational Issue
☐ Right-of-Way/Access Agreement
☐ Safety, Health and Environment
☐ Socioeconomic (labour, economy, social)
☐ Traditional use
☒ Vegetation
☐ Wetlands
☐ Wildlife and Habitat

Topic	Discussion

Imperial

Imperial's Sarnia Products Pipeline

Waterdown to Finch Project



July 2018

Agenda

- Welcome/ Open Meeting
- Introductions
- Safety Moment
- Overview of Waterdown to Finch Project
- Overview of Archaeology Planning
  - Archaeology Draft Stage 1 Results
  - Planned Stage 2 Methods
  - Geotechnical Assessment
- Meeting Adjourned



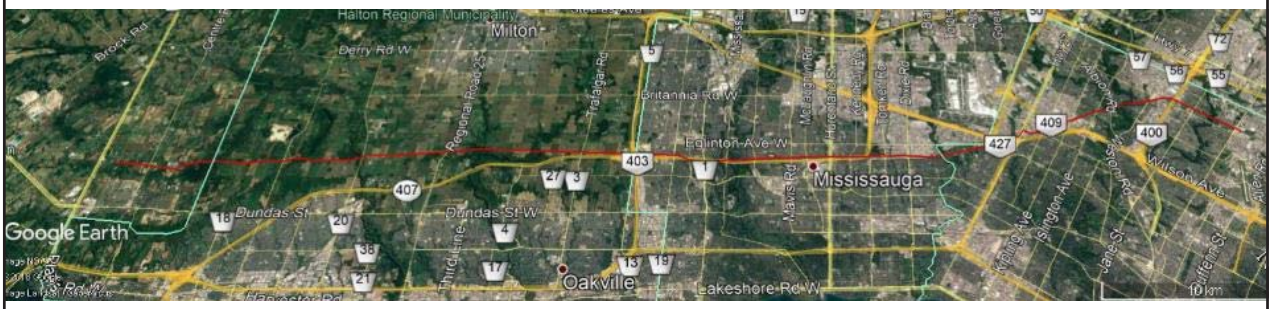
2

Safety Moment

3

Imperial's Sarnia Products Pipeline

- Imperial's Sarnia Products Pipeline (SPPL) runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area
- SPPL is important infrastructure to the Greater Toronto and Hamilton Area (GTHA)
  - SPPL supplies a significant portion of product used at Toronto Pearson International Airport, and gasoline and diesel that keeps people, goods and services moving
- SPPL has operated safety in the region for many years



4

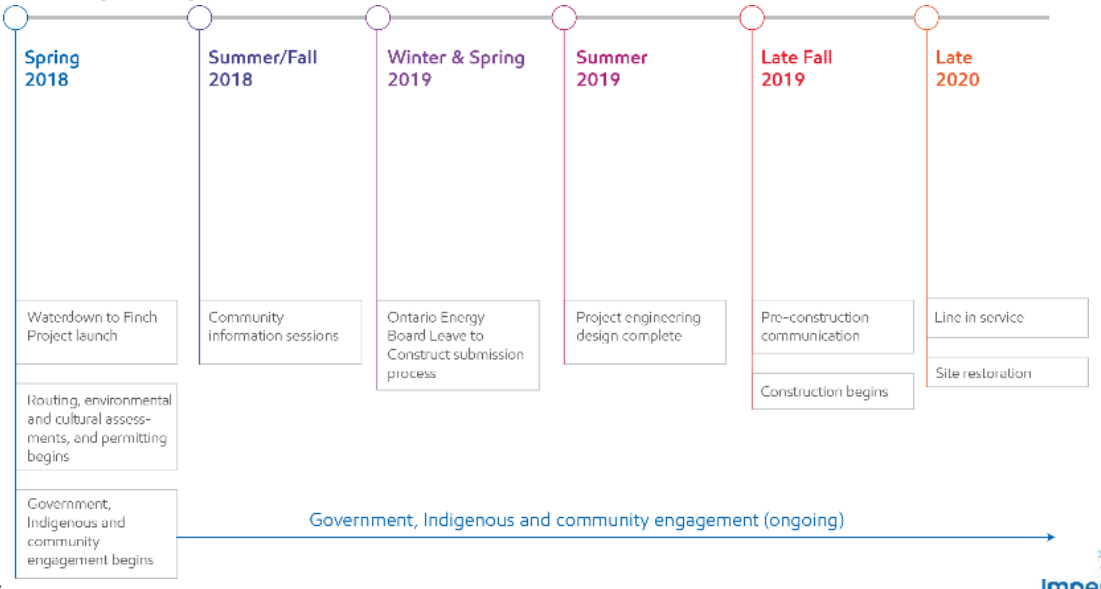
Continued safety and reliability for the GTHA

- Imperial is planning to replace approximately 63 km of the line with new pipe
- The pipeline will continue to operate safely until the replacement segments are prepared for operation
- Imperial will apply for a Leave to Construct from the Ontario Energy Board, which includes an assessment of environmental effects and engagement with landowners, communities and Indigenous groups
  - Imperial will respect landowners' property and will seek to minimize disruptions
  - Imperial recognizes the importance of collaboration with Indigenous groups, municipalities and other community stakeholders



5

Timeline*



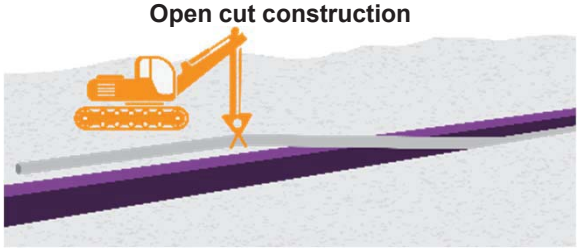
6 * Subject to regulatory and permitting approvals

Imperial

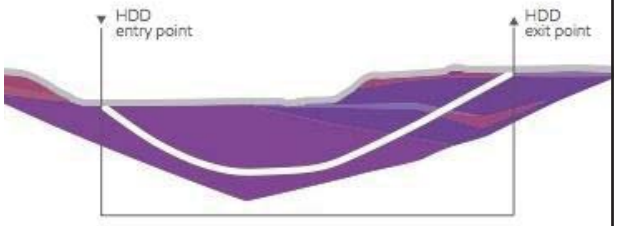
Minimizing construction impacts

- Imperial will work with landowners, permitting authorities and different levels of government so construction impacts are as limited as possible
- Engineers and environmental surveyors work together to develop the pipeline route that minimizes impact to the environment and community
- Deactivated pipe will be removed from service, cleaned, filled with nitrogen and left in place to reduce environmental impacts
- Based on engineering and environmental surveys, Imperial will perform one of two construction techniques:

Open cut construction



Trenchless technology



7

Discussion

8

Imperial

Working Together on Archaeology Planning

9

Past Recovery
Archaeological Services Inc.

About Us

- Past Recovery, established as a partnership in 2000, has conducted over 300 Stage 1 through Stage 4 archaeological assessments in Ontario since incorporation in 2013
- Brenda Kennett, M.A. and Jeff Earl, M.Soc.Sc., principals, have over 50 years of combined experience
- Located in Perth, Ontario, Past Recovery conducts archaeological assessments across eastern Ontario, as well as undertaking projects further afield in central, northern and southwestern Ontario



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Imperial

Past Recovery
Archaeological Services Inc.

About Us

Relationships with:

- Algonquins of Ontario
- Williams Treaties First Nations
- Mohawk Council of Akwesasne
- Mohawks of the Bay of Quinte

- Jessalyn Miller, B.A., Staff Archaeologist, has also previously worked with Indigenous Field Liaison Representatives from MNCFN, Six Nations, HDI and Huron-Wendat Nation since 2013

Algonquins of Ontario

WILLIAMS TREATIES FIRST NATIONS

MOHAWK COUNCIL OF AKWESASNE

11

Imperial

Preliminary Archaeological Stage 1 Results

Archaeological Potential

- Much of the study corridor contains archaeological potential for both pre-Contact and post-Contact archaeological resources
- Sections of the corridor exhibit areas of extensive subsurface disturbance and therefore no longer hold potential
- Some sections have been subject to previous archaeological assessments that have cleared these areas of archaeological concerns



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Imperial

Preliminary Archaeological Stage 1 Results

Archaeological Concerns

- 11 registered archaeological sites were identified within, or in very close proximity, to the project area including the Parsons site (AkGv-8) and 5 other pre-Contact Indigenous sites (a further 2 with cultural tradition unknown but likely Indigenous)
- Lands associated with the Niagara Escarpment and 15 major river crossings are considered to have a high potential for Indigenous archaeological sites
- The Credit River Valley, is a designated cultural landscape
- Historical mapping between 1858 and 1878 indicates historical settlements and associated features, including a small number of pioneer cemeteries, on lots associated with the corridor



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Imperial

Preliminary Archaeological Stage 1 Results

Historical Context and Cultural Overview

- The land use history produced in the draft report has been informed by the archaeological record from a settler perspective
- We are seeking input from First Nations regarding your community's land use history and cultural narrative in order to provide a more inclusive context for the project
- We are also seeking advice on cultural places of concern to your community that may not have been identified in the draft Stage 1 report so that appropriate procedures and protocols are followed as the project progresses



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Indigenous Engagement

- Communities with an interest in the project area are anticipated to include the following:
  - Mississaugas of the New Credit First Nation
  - Six Nations of the Grand River
  - Huron-Wendat Nation
  - Haudenosaunee Development Institute
- Communities will have an opportunity to review and comment on the draft Stage 1 assessment report
- Field Liaison Representative Monitors will be included in the Stage 2 archaeological fieldwork



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Proposed Archaeological Stage 2 Methods

Project Impact Mitigations

- Assessment of all areas of archaeological potential through shovel testing at 5 m intervals or pedestrian survey of ploughed fields at 5 m intervals
- Trenchless HDD boring at major river crossings
- Trenchless HDD boring beneath the Parsons site (AkGv-8) to reduce impacts

Factors Limiting Archaeological Potential

- Visible disturbance into subsoils (described in Stage 1)
- Soil disturbances associated with the placement of previous utilities
- Areas of previous archaeological assessments and cleared of further archaeological concerns
- Permanently wet areas



16

Imperial

Geotechnical Assessment

- ~140 geotechnical bore hole locations within existing utility corridor
  - ~97 are located within areas of archaeological potential
- Exiting infrastructure will be used as much as possible for access (e.g., roads, driveways, paths, etc.)
- No soil stripping
- Equipment:
  - Low ground pressure wide track or tired rigs (hollow stem auger)
  - Tired support vehicle
- Drilling scheduled July to September 2018
- Borehole locations to be cleared of archaeological concern prior to drilling via targeted Stage 2 archaeological assessment



17

Imperial

Discussion

18

Imperial

For more information

W: imperialoil.ca/waterdowntofinch
T: 416.586.1915
E: questions@imperialon.ca

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Ministry of Energy, Northern Development and Mines

77 Grenville Street
6th Floor
Toronto ON M7A 2C1

Tel: (416) 325-6544

Ministère de l'Énergie, du Développement du Nord et des Mines

77, rue Grenville
6e étage
Toronto ON M7A 2C1

Tél: (416) 325-6544

Ontario

Indigenous Energy Policy

VIA EMAIL

September 25, 2018

Chief Eva Hill
Six Nations of the Grand River Elected Council
PO Box 5000
Ohsweken, Ontario N0A 1M0

Re: Imperial Waterdown Pipeline Project

Dear Chief Hill:

This letter is to notify you that the Ministry of Energy, Northern Development and Mines on behalf of Ontario has delegated the procedural aspects of consultation to Imperial Oil Limited for its' proposed Imperial Waterdown Pipeline Project in relation to the Ontario Energy Board's Leave to Construct approval process.

Imperial Oil is planning to redevelop a pipeline in order to provide fuel across the Greater Toronto and Hamilton Area, including jet fuel at Toronto Pearson International Airport, as well as gasoline and diesel fuel. The project consists of approximately 63 kilometers of the existing line with new pipe. The proposed pipeline will commence at Waterdown Station [43.33500° N, 79.93248° W], and will end at the company's terminal storage facility at North York's Finch Terminal [43.76652° N, 79.48878° W]. If approved, construction is anticipated to begin in 2019

I encourage representatives of your community to participate in efforts made by Imperial Oil Limited to consult your community on its proposed project so that you can receive project information and understand if there are any potential impacts on Aboriginal or treaty rights. The consultation process is an opportunity to provide your community's feedback to Imperial Oil Limited and the Crown, including any suggestions or proposals your community might have for mitigating, avoiding or accommodating any potential impacts to Aboriginal or treaty rights. Ministry officials are also available should you wish to contact the Crown directly. Please note that none of the foregoing should be taken to imply approval of this project.

Should you or any members of your community have questions regarding the material above, please contact Raina Crasto at 416-326-4571 or raina.crasto@ontario.ca and Shannon McCabe at 416-212-6704 or shannon.mccabe@ontario.ca.

Sincerely,

Morgan Owen
A/Manager
Indigenous Energy Policy

C: Ontario Energy Board
Ontario Pipeline Coordinating Committee (OPCC)
Jessie Malone, Environmental and Regulatory Advisor, Safety Security Health and Environment, Imperial Oil Limited

Waterdown to Finch Project - Stage 1 Archaeological Assessment

Jennifer Liddell
To: lonnybomberry@sixnations.ca, jthomas@sixnations.ca

Thursday, Sep 27th, 2018
12:58 PM

Please find attached a copy of the Stage 1 Archaeological Assessment conducted by Past Recovery Archaeological Consultants for the Proposed Waterdown to Finch Project on behalf of Imperial Oil Limited. The present assessment has identified a number of registered archaeological sites within or in close proximity to the study corridor.

Imperial is seeking Indigenous review of the draft report to ensure that any traditional knowledge/information regarding traditional use sites, sacred sites, or other sites is reflected in the background documentation and the determination of archaeological potential. Let us know if you have any comments or questions, or any additional information that you feel may help inform the Stage 2 Assessment. A Stage 2 Archaeological Assessment is currently being undertaken to identify any as-yet unknown archaeological sites that may be impacted by the project.

Please provide a response by November 1, 2018 in order to inform the current field program.

Respectfully,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
519 339 2265 Tel
kelly.williams@esso.ca
Imperialoil.ca

1 Attachments

Download All

E.1 WFP Stage 1 Archaeological Assessment_06Sept2018.pdf

Imperial

Waterdown to Finch Pipeline Project
November 15, 2018
Meeting with Six Nations Summary Notes

**Please note that these meeting notes provide a summary of the discussion; however, these are not detailed minutes of the meeting. While we have endeavored to document the main points, some discussion items may not be included.*

Participants

Six Nations

- Lonny Bomberry, Director Lands and Resources (LB)
- Rose Miller, Archaeology Coordinator (RM)
- Waylon Bomberry, (WB)
- Matt Jocko, (MJ)
- Robin Lynne (RL)
- Dawn Laforme (DL)

Imperial

- Kelly Williams, Community Relations Officer (KW)
- Jessie Malone, Environment and Regulatory Advisor (JM)

ERM

- Jim Chan, Senior Consultant (JC)

Past Recovery

- Brenda Kennett, Archaeologist (BK)

Meeting Objectives

- Provide overview presentation of Imperial's Waterdown to Finch Project (the Project)
- Seek feedback on the Stage 1 Archaeological Assessment report
- Seek feedback on Field Monitor Program
- Share information on What We've Heard
- Share information on Leave to Construct process
- Discussion on Six Nation needs and consultation expectations

Topic	Discussion
Location	• Meeting held at Lands and Resources Department of the Six Nations, 2498 Chiefswood Road, Ohsweken, Ontario.

Agenda	• Welcome
	• Introductions
	• Safety Moment
	• Overview of Waterdown to Finch Project (recap, if needed)
	• Archaeological Assessment and Planning
	  o Seeking Feedback on Stage 1 Archaeological Assessment Report
	  o Seeking Feedback on Field Monitor Program
	• Environmental Planning
	  o What We've Heard
	• Construction Methods
	  o Minimizing Construction Impacts
	  o HDD and HD Bore
	• Leave to Construct process
	• Discussion
	  o Consultation Preferences

Topic	Discussion
	• Meeting Adjourned
Materials	• Imperial's Sarnia Products Pipeline Waterdown to Finch Powerpoint presentation Nov 2018
Introduction	• Imperial (KW) thanked everyone for taking their valuable time to met with us. We know it is a busy time in the community. We are appreciative of this. • A round of introductions and a repeat of the Project overview to start the meeting since the last time we were here at Six Nations.
Project Overview	• Imperial (JM) provided a Project overview. Imperial's Sarnia Products Pipeline (SPPL) runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area. • SPPL is important infrastructure to the Greater Toronto and Hamilton Area (GTHA) • SPPL supplies a significant portion of refined product used at Toronto Pearson International Airport, including gasoline and diesel that keeps people, goods and services moving in the region. • SPPL has operated in the region for many years. It has been in operation since the 1950s. The line is ~65 years old and as a proactive measure, Imperial proposes to replace approximately a 63-kilometre segment of this line with new pipe. The Waterdown to Finch Project (the Project) is the replacement segment from the company's Waterdown pump station in rural Hamilton to the Finch terminal storage facility in Toronto's North York area. • Imperial has initiated discussions with the Ontario Energy Board (OEB). The major regulatory process will be the filing of the leave to construct application with the OEB. • Imperial has engaged with the public, municipalities, regulators, landowners and Indigenous communities. Since our last meeting, we have continued to advance Project engineering design. • Environmental field surveys were completed in spring, summer and fall to capture the field work during the seasonal windows. Archaeological assessment program and the geotechnical program field work are ongoing. • Overview of timelines (as described in the PowerPoint presentation), Spring 2018 project launch; Summer/Fall 2018 Community Information Sessions; Winter/Spring 2019 submission to OEB; Summer 2019 engineering design complete; Late Fall 2019 pre-construction communication. 2020 is the potential start date. • There are two proposed types of construction methods: open cut construction and trenchless: Horizontal Direction Drilling (HDD and Horizontal Directional Bore (HD Bore)). JM indicated that notionally, trenchless construction is planned for ~1/3 of the total line replacement. Construction method has been informed by geotechnical information and environmental considerations. Imperial will look to avoid major watercourses, major road crossings, provincially significant wetlands and important archaeological features by using HDD/HD Bore. • Imperial (JM) explained that the current pipeline will remain in operation until the new line is constructed, tested and put into service. The old pipeline will be deactivated and removed from service. It will be cleaned, filled with nitrogen (inert gas to detect pressure

Topic	Discussion
	monitoring), maintained with cathodic protection, and monitored and left in place. Deactivation is proposed instead of removal to reduce net effects as there are other pipelines and infrastructure owned by other companies operating in the same corridor.
	•

Archaeological Assessment	• BK noted that the Stage 1 Archaeological Assessment report was provided to Six Nations, as well as to other communities, for review and comment.
	• Imperial is open to welcoming feedback on the Stage 1 report to ensure Six Nations comments and review is incorporated prior to submission to MTCS. Imperial is seeking feedback prior to early December 2018, where possible.
	• Imperial offered to re-send copy of the Stage 1 report.
	• JM noted that Imperial has mapping and can provide shapefiles, Google Earth files, based on the preferences of Six Nations.
	• Six Nations (RM), mapping files would be useful.
	• BK noted that communities with an interest in the project area are anticipated to include the following:
	  • Mississaugas of the New Credit First Nation
	  • Six Nations of the Grand River
	  ▪ Haudenosaunee Confederacy Chiefs Council/Haudenosaunee Development Institute
	  • Huron-Wendat Nation
	• BK noted that the proposed Stage 2 methodology and plan is comprehensive. Indigenous Field Monitors are participating in Stage 2. Assessment of all areas of archaeological potential within the corridor will involve test pit shovel testing at 5 m intervals or field ploughing and surveying.
	• In addition to the Stage 2 archaeology fieldwork for the line, the trenchless HDD design methods require geotechnical assessment. Geotechnical assessment began in October. We have met with the MTCS to confirm the archaeology pre-clearance requirements to support the geotechnical borehole investigation program.

Feedback on Field Monitoring Program	• Imperial (KW) I have met some of the Six Nations Field Monitors on site, they are enthusiastic and I've seen a positive exchange of knowledge between the Field Monitors and the Project team crews. Work is collaborative and working well. • KW asked, from Six Nation's perspective, how is the Field Monitoring Program going? • Six Nations (RM) replied generally going well. A few areas of miscommunication to raise. • Six Nations Field Monitors were asked for vehicle beacons and specific hard hats and another time for specific fire retardant coveralls (not standard PPE) but this has not been clear/consistent. There was an incident of signing-in. Field Monitor thought he was signed-in but was not apparently. One instance where archaeology assessment was to occur but matting on the ground was already there. • Imperial (KW) thank you for the feedback. We will need to communicate more clearly. Yes, green coloured hard hats are required on the right-of-way and vehicle beacons as

Topic	Discussion
	well. Beacons and green hard hats will be provided if Field Monitors do not have their own. As program continues this will be smoother and communication will be clearer. • BK indicated that our Project team crews have been working well together and appreciate the Field Monitor participants. In the field, the group works together to make an appropriate assessment/recommendation and next steps.
Environmental Planning	• Imperial (JM) shared that we conducted environmental field surveys such as vegetation and wetlands, terrestrial, bird, bats, amphibians, and fish habitat. The field data was used to assist with Project planning, helped inform the scope of work for construction, helps to avoid and mitigate impacts to the environment. • Fish habitat assessments informed whether or not in-water work during construction will need to avoid the timing of sensitive fish life stages. • Vegetation and wetland surveys informed the presence of rare plants and wetlands which may need to be either avoided or environmental effects mitigated and/or compensated. We mapped the Provincially Significant Wetlands (PSW) and the Project design plans to avoid all of them. • Groundwater and surface water studies identified water uses such as water wells and informed water management planning. • Alternatives: Regulatory, stakeholder and landowner engagement has influenced the alignment and construction methods. The Project is proposed within Imperial's existing right-of-way for the first 1/3 and then it enters the HONI utility corridor. This is the best alternative route to minimize impacts. The Project planning also includes alternative methods, in particular alternative construction installation methods (i.e. trench versus trenchless). Nearly 1/3 of the total line will be installed using trenchless construction methods (HDD and HD Bore) to avoid major highways, major watercourse crossings, sensitive areas (i.e. Provincially Significant Wetlands).

What We've Heard	• Imperial (JM) provided the information on what we've heard and how Imperial has responded and/or how the comment has helped influence the Project design.
	• Protecting natural heritage
	  • Conducted vegetation and wetlands, Species at Risk, and fish habitat field surveys. Scheduled construction outside of sensitive Species at Risk timing windows, where feasible.
	  •
	• Identifying route alternatives
	  • Avoid electricity transmission infrastructure by re-routing new pipeline within the existing Hydro One utility right-of-way and using alternate construction methods such as boring and directional drilling techniques to avoid sensitive surface areas.
	• Supporting emergency response preparedness
	  • Worked collaboratively with stakeholders to review emergency plan. Imperial collaborated with local emergency services and others in recent Emergency Response Exercise.

Topic	Discussion

	• Minimizing impacts to local transportation networks
	  • Use of trenchless construction methods to avoid major roadways. Will implement traffic management plans and mitigation measures to minimize traffic impacts
	• Preserving known archaeological and cultural heritage resources
	  • Avoid known archaeological sites
	  • Engage Indigenous Field Monitors and consultation office on archaeological assessment planning and review. Worked collaboratively with Indigenous Field Monitors on archaeological assessments and environmental field surveys.
	• Completed an impact assessment on agricultural lands.
	• Providing detailed maps and online resources. An "online information session" with ongoing Project updates and detailed maps at imperialoil.ca/waterdowntofinch.

Consultation What We've Heard (continued)	• Imperial (JM, KW) noted that a series of Community Information Sessions were recently held in municipalities. Imperial noted that we would be willing to offer a Community Information Session or an open house presentation in the community based on your preference and need. • Six Nation (LB) replied that we have not had these typically. If the Lands and Resources group felt this was needed and important, we would do so ourselves or bring proponents in. • Imperial (JM, KW), thank you. If you feel this is necessary, we can offer this. KW noted that the community's primary interest is on stewardship and archaeological assessment planning and participation.
Leave to Construct process	• ERM (JC) provided an overview of the Leave to Construct (LTC) process, explained the LTC process flow and indicated the OEB regulatory consultation points. • Imperial is preparing the Environmental Report and planning to submit the LTC application in Q1 2019 to the Ontario Energy Board. We are in the pre-application phase and Imperial's consultative approach is to consult early. Feedback can be received at any time, regardless of the OEB's regulatory consultation points. • Once application filed, the OEB will issue a notice to the public. Individuals/organizations/communities can provide letters of comment or participate as an intervener. OEB will organize a written/oral hearing to seek comments prior to the OEB Board's decision. • ERM (JC) reiterated that our consultative approach is that feedback and comments/concerns can be raised at anytime for response and not dependent on OEB's regulatory points.
Discussion	• Six Nations (LB), how do you determine extent of known site and testing area? I.e. for example the Parsons site. • BK replied that at known sites, one by one metre units will be excavated if required to determine the site limits. Testing will cover the project footprint and appropriate site buffers will be in place during construction. • LB, tell me about spills/ spill prevention during operations?

Topic	Discussion

	• Imperial has a strong focus on safety and spill prevention. The pipeline replacement is a proactive safety measure.
	• Prior to construction, Imperial will develop a spill management plan to prevent and respond to a leak or spill during the construction phase. During operation, Imperial will take proactive safety measures to prevent spills. We have a robust Emergency Response Plan. Regulations and government oversight dictate how we prepare for and respond to a potential pipeline spill. We would be responsible for cleaning up and mitigating damages.
	• Imperial has proactive safety measures:
	  • We use in-line inspection tools, which are sent from one side of the line to the other and measures the inside diameter of the pipeline and assesses the integrity of the line.
	  • Imperial flies the line every week; portions that cannot be flown are ground patrolled.
	  • Line is monitored 24 hours a day, 365 days a year.
	  • In the unlikely event of a spill, the line will be shutdown immediately. We would implement the Emergency Response Plan, evaluate the hazards and risks, protect people, protect waterways and wildlife, protect property, coordinate the emergency response and clean up the site.
	• LB, when is HDD used? Is it used for under sensitive areas?
	  • Trenchless construction (HDD or HD Bore) installation is used to avoid and mitigate impacts to sensitive surface areas. We will use HDD or HD Bore to go underneath and avoid major roadways, major watercourse crossing and sensitive areas such as Provincially Significant Wetlands. This is part of the Project design.
	• LB, tell us about wildlife sightings?
	• There have been sightings of SARs bobolinks in agricultural fields, presence of milkweed (Monarch butterfly), butternut trees, etc. No sightings of Jefferson salamander but presence of salamander habitat. Six Nations -- we would review the wildlife report as part of the LTC application.
	• Imperial (KW), could you tell us what other expectations you would have for capacity funding and consultation?
	• Six Nations, yes, in addition to participation of Field Monitors, we would appreciate periodic updates and notification of the OEB process.

Closing	• Imperial (KW), as I have become more familiar with Six Nations history and what you have accomplished, it is impressive. You should be very proud of it. Thank you again for taking the time to meet with us. • Six Nations – you are welcome. We are proud of it.
	•

Summary of Actions	Who

Topic	Discussion	
	• As program continues, organizing logistics for Field Monitor program will be smoother and communication will be clearer.	KW
	• Provide Six Nations with copy of Stage 1 Archaeology Assessment again	KW
	• Provide Six Nations with mapping shapefiles, Google Earth files	KW
	• Provide Six Nations with information once application filed with OEB. Provide periodic updates to Six Nations.	KW

Potential topics to record for Isometrix reporting:

- ☒ Accidents and Malfunctions
- ☐ Air Emissions and Noise
- ☒ Alternatives
- ☐ Aquatic Resources and species
- ☒ Archaeology
- ☐ Community Contribution Request
- ☐ Cultural Heritage Resources
- ☒ Emergency Response
- ☐ Excavation/Damage Prevention/Pipeline Location
- ☐ Groundwater
- ☒ Operational Issue
- ☐ Right-of-Way/Access Agreement
- ☐ Safety, Health and Environment
- ☐ Socioeconomic (labour, economy, social)
- ☐ Traditional use
- ☒ Vegetation
- ☐ Wetlands
- ☐ Wildlife and Habitat

Jim Chan

Subject: FW: FW: Waterdown to Finch-Imperial Project

From: Williams, Kelly /C
Sent: Thursday, September 20, 2018 3:37 PM
To: 'Imperial Isometrix' <Imperial-isometrix@national.ca>
Subject: FW: FW: Waterdown to Finch-Imperial Project

From: Williams, Kelly /C
Sent: Wednesday, September 19, 2018 5:13 PM
To: Todd Williams <williams.todde@gmail.com>; Wayne Hill <tworowarchaeology@gmail.com>
Cc: HDI Tracy <traceyghdi@gmail.com>; Misty Hill <mistyhdi@gmail.com>; Brian Doolittle <ganowa@me.com>; Aaron Detlor <aarondetlor@gmail.com>; Liddell, Jennifer H <jennifer.h.liddell@esso.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: RE: FW: Waterdown to Finch-Imperial Project

Hi Wayne and Todd-I apologize for not getting the letter out to your team today. It has one final channel to get through and it will be delivered to you tomorrow, hard copy to be delivered to the office. We have made arrangements to delay archeology work specific to the project until Wednesday. Hopefully we can get everything in place before then. Please give me a call if you have any questions. 519-328-8681.

Thank you for sending the agreement. I think it will help us get to where we need to be much faster. Have a great night. Talk to you tomorrow. -kelly

From: Todd Williams [mailto:williams.todde@gmail.com]
Sent: Wednesday, September 19, 2018 11:30 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Wayne Hill <tworowarchaeology@gmail.com>; HDI Tracy <traceyghdi@gmail.com>; Misty Hill <mistyhdi@gmail.com>; Brian Doolittle <ganowa@me.com>; Aaron Detlor <aarondetlor@gmail.com>; Liddell, Jennifer H <jennifer.h.liddell@esso.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: Re: FW: Waterdown to Finch-Imperial Project

Good morning Kelly,

Wayne Hill asked me to follow up with you,

I've attached a signed copy of HDI's standard service agreement.

Please review, if agreed to, please sign and return a copy.

Thanks,

Todd E. Williams, P.Eng.
Monitoring Program Coordinator
Haudenosaunee Development Institute (HDI)

Haudenosaunee Development Institute (HCCC)
Six Nations of the Grand River Territory
T: 519-445-4222
C: 519-761-1794
https://www.haudenosauneeconfederacy.com

On Wed, Sep 19, 2018 at 7:33 AM, Williams, Kelly /C <kelly.williams@esso.ca> wrote:

> Good morning Wayne-Thank you for sending me the email address. I did receive the second email with the correct address. I am hoping the letter is ready to go sometime today. We will send a draft monitoring agreement that also covers environmental monitoring with the letter, however please send me a copy of the HDI archaeological agreement if you can.
>
> If you have any concerns while conducting your site visits, please give me a call, you have my number. Thanks! -kelly
>
> **From:** Wayne Hill [mailto:tworowarchaeology@gmail.com]
> **Sent:** Tuesday, September 18, 2018 9:23 PM
> **To:** Williams, Kelly /C <kelly.williams@esso.ca>
> **Cc:** HDI Tracy <traceyghdi@gmail.com>; Misty Hill <mistyhdi@gmail.com>; Brian Doolittle <ganowa@me.com>; Aaron Detlor <aarondetlor@gmail.com>; Todd Williams <williams.todde@gmail.com>
> **Subject:** Re: FW: Waterdown to Finch-Imperial Project
>
> Good evening Kelly,
>
> Just to follow up on our conversation from earlier today. As you indicated the archaeology work has been stopped and ESSO is respecting the cease and desist from my initial email. Also to reiterate for clarification sake and contrary to misinformation put forth by unsubstantiated sources the HDI is still operating with our day to day business as per usual.
>
> Its also my understanding Esso intends on signing the HDI's archaeological agreement before resuming work. I will be conducting on site visits to the project area to ensure ESSO is being sincere and factual on the cease and desist. Also the HDI/HCCC should expect an email indicating ESSO's intention to formally engage and hard copies to follow this via courier.
>
> As requested here is the HDI email address Hdi@bellnet.ca

Thanks Wayne,

On Tue, Sep 18, 2018, 11:49 AM Williams, Kelly /C, <kelly.williams@esso.ca> wrote:

From: Williams, Kelly /C
Sent: Tuesday, September 18, 2018 11:40 AM
To: 'tworowarcheology@gmail.com' <tworowarcheology@gmail.com>
Cc: Liddell, Jennifer H <jennifer.h.liddell@esso.ca>
Subject: Waterdown to Finch-Imperial Project

Hi Wayne,

We are in receipt of your email dated September 17. I apologize for the unreturned calls. We have had some transition on our project team recently. Please give me a call at 519-328-8681 and I can provide you with more information.

Respectfully,

Kelly Williams

Community Relations Advisor

602 Christina Street

Sarnia, ON Canada N7T 7M5

519-328-8681 Cell

519 339 2265 Tel

kelly.williams@esso.ca

Imperialoil.ca

Robert Ballinger
Area Manager, East Canada
P: 519.333.7556
E: robert.e.ballinger@esso.ca

September 20, 2018

Haudenosaunee Development Institute
16 Sunrise Court, Ste. 600
Ohsweken, ON N0A 1M0
Six Nations of the Grand River Territory
519.445.4222

Dear Sir or Madam,

Members of our project team were happy to begin the conversation with the Haudenosaunee Confederacy Chiefs Council (HCCC) with representatives from the Haudenosaunee Development Institute (HDI), regarding our Waterdown to Finch pipeline replacement project, at the meeting on August 15 in Ohsweken.

On September 11 the Ministry of Energy, Northern Development and Mines (Ministry) sent a letter on behalf of Ontario, informing us that they are delegating the procedural aspects of the Crown's duty to consult, to Imperial. As the proponent of the project, we have been advised by the Ministry to send correspondence and information to the HCCC directly and to copy HDI.

It is Imperial's intention to engage meaningfully with the HCCC, including the involvement of field monitors and reasonable costs associated with project review. We continue to hope that an agreement regarding the monitors can be executed as soon as possible. We recognize that costs are incurred to review project information from proponents, and we are willing to enter into a capacity funding agreement for this purpose.

We hope that the HCCC will consider this approach in reviewing the project. Our intention is to be respectful, transparent and inclusive. As a publicly traded company, we are bound by the laws and regulations of Canada and Ontario, and must adhere to the structures within them.

In regard to the application information requested by HDI at the August 15 meeting, we would like to provide the following:

1. The municipal address of the proposed project is situated between Imperial's Waterdown Pump Station (100 Concession 5 East, Waterdown, ON) and Finch Receiver Valve (1150 Finch Avenue, Toronto, ON). The route is approximately 63-kilometres and intersects the Cities of Hamilton, Burlington, Oakville, Mississauga and Toronto.
2. A map is attached, titled ONT-WF-SPPL-UP-DK-0039.
3. Between 0 and 18.7 km, the planned pipeline will be within existing Imperial Oil owned right-of-way (ROW) which is approximately 15 m (50 ft.) in width. Between 18.9 and 61.5 km, the pipeline will require new ROW within a Hydro One Networks Inc. (HONI) corridor. The surrounding land use varies between agriculture, parkland, urban residential and commercial. The current land use is industrial, per O.Reg. 154/04. The proposed land use is industrial, per O.Reg. 154/04.
4. The archaeology program for the project is extensive, and is one aspect for which we are hopeful that HCCC field monitors will be active on site. A Stage 1 Archeological Assessment is drafted, but has not been submitted to the Ministry of Tourism, Culture, and Sport (MTCS). Imperial intends to send this to HCCC prior to submitting it to MTCS.
5. A Stage 2 Archeological Assessment is planned for September to December 2018; the work for which monitors will be engaged.
6. Environmental field studies (i.e., wildlife, vegetation, aquatics) began in spring 2018 and will continue through fall 2018 in order to capture the appropriate seasonal windows. An

environmental report in support of the Ontario Energy Board (OEB) Leave to Construct application, and a Public Works Class Environmental Assessment for Infrastructure Ontario (IO) are being prepared. Environmental field monitors would also be engaged from HCCC, if desired, for any outstanding environmental field programs.

The proposed schedule of the project is as follows:

- Spring/summer/fall 2018 – Environmental studies
- Summer/Fall 2018 – Community information sessions
- Winter/ Spring 2019 – OEB Leave to Construct application and IO Class EA submission
- Summer 2019 – Engineering design complete
- Late Fall 2019 – Construction begins
- Late 2020 – Line in-service

The Project is seeking the following permits or approvals:

- Ontario Energy Board: Leave to Construct
- Infrastructure Ontario: Public Works Class Environmental Assessment
- Niagara Escarpment Commission: Development Permit
- Ministry of Natural Resources and Forestry: permit requirements to be determined, based on field results
- Ministry of Tourism, Culture and Sport: Archaeology and Cultural/Built Heritage Clearance
- Ministry of Environment, Conservation and Parks: Water Taking Permit (to be confirmed)
- Various Conservation Authorities: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses
- Fisheries and Oceans Canada: Request for Review
- Various Cities/Municipalities: Tree Removal/Damage permits
- Hydro One Networks Inc. (HONI) Grant of Easement (station lands)
- HONI Temporary Use and Access Agreement/License (station lands)
- HONI Construction and Encroachment (easement lands)
- IO Grant of Easement (corridor lands)
- IO Temporary Use and Access Agreement/License (corridor lands)

It is our understanding that HDI manages the field monitor program on behalf of HCCC. We have received the HDI Archaeological Monitoring agreement and will respond separately very soon.

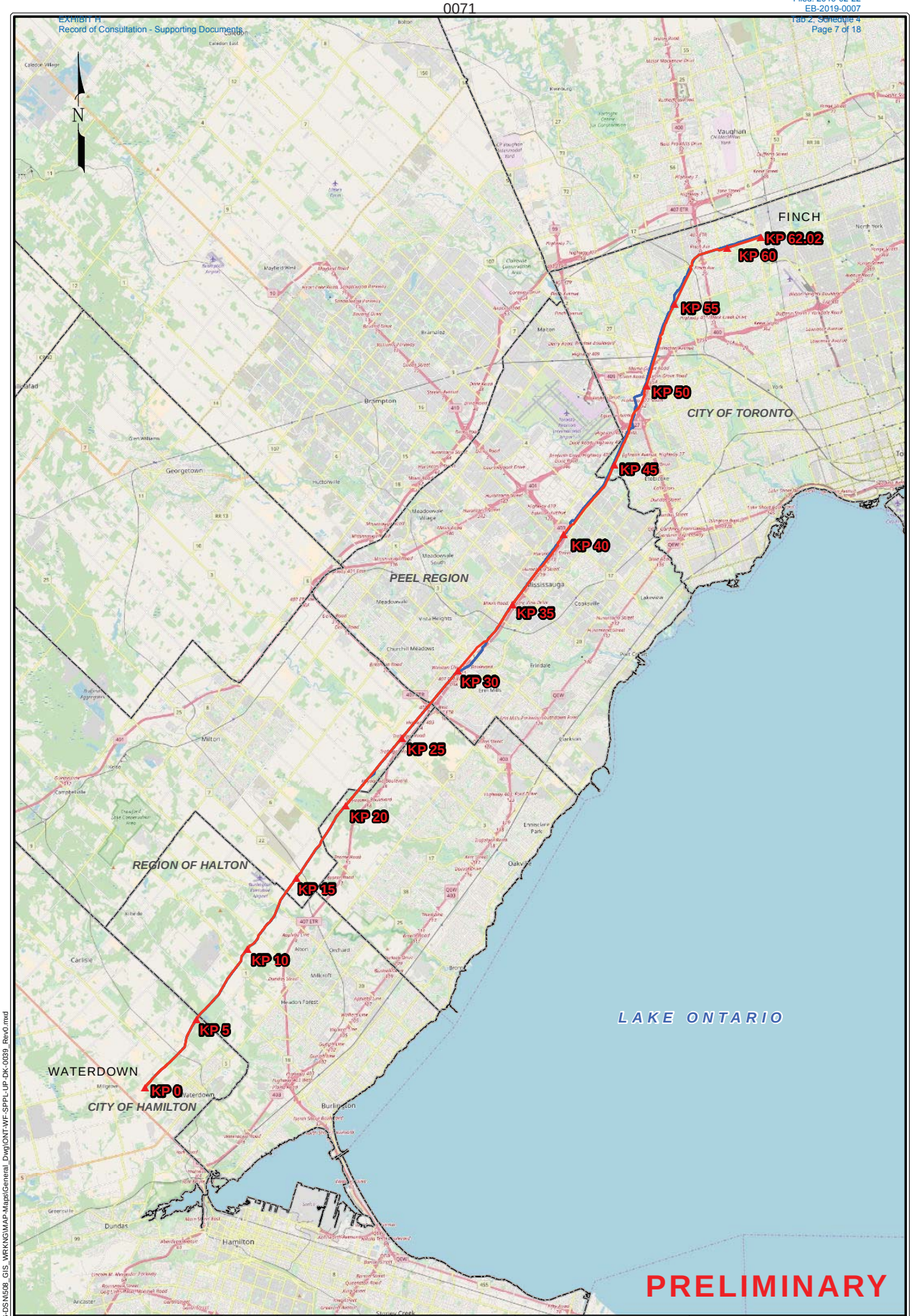
Our goal is to provide project information and carefully consider all comments and concerns that are raised. If you require clarification on any of the information contained here, or have any questions please contact Kelly Williams, Community Relations Advisor, at kelly.williams@esso.ca or (519) 328-8681.

Respectfully,

Robert Ballinger

Filed: 2019-02-22
EB-2019-0007
Tab 2, Schedule 4
Page 7 of 18

EXHIBIT H
Record of Consultation - Supporting Documents



LEGEND

- Kilometre Post
- Proposed Route
- Existing Waterdown-Finch Pipeline
- Region

0 2 4 8
Kilometres

REV	DESCRIPTION	DATE
0	ISSUE FOR USE	09/12/18

Prepared By: UniversalPegasus International

DWN BY:	DMN	DATE:	08/10/18
REV BY:	HMC	DATE:	09/12/18
APR BY:	JAW	DATE:	09/12/18

Imperial

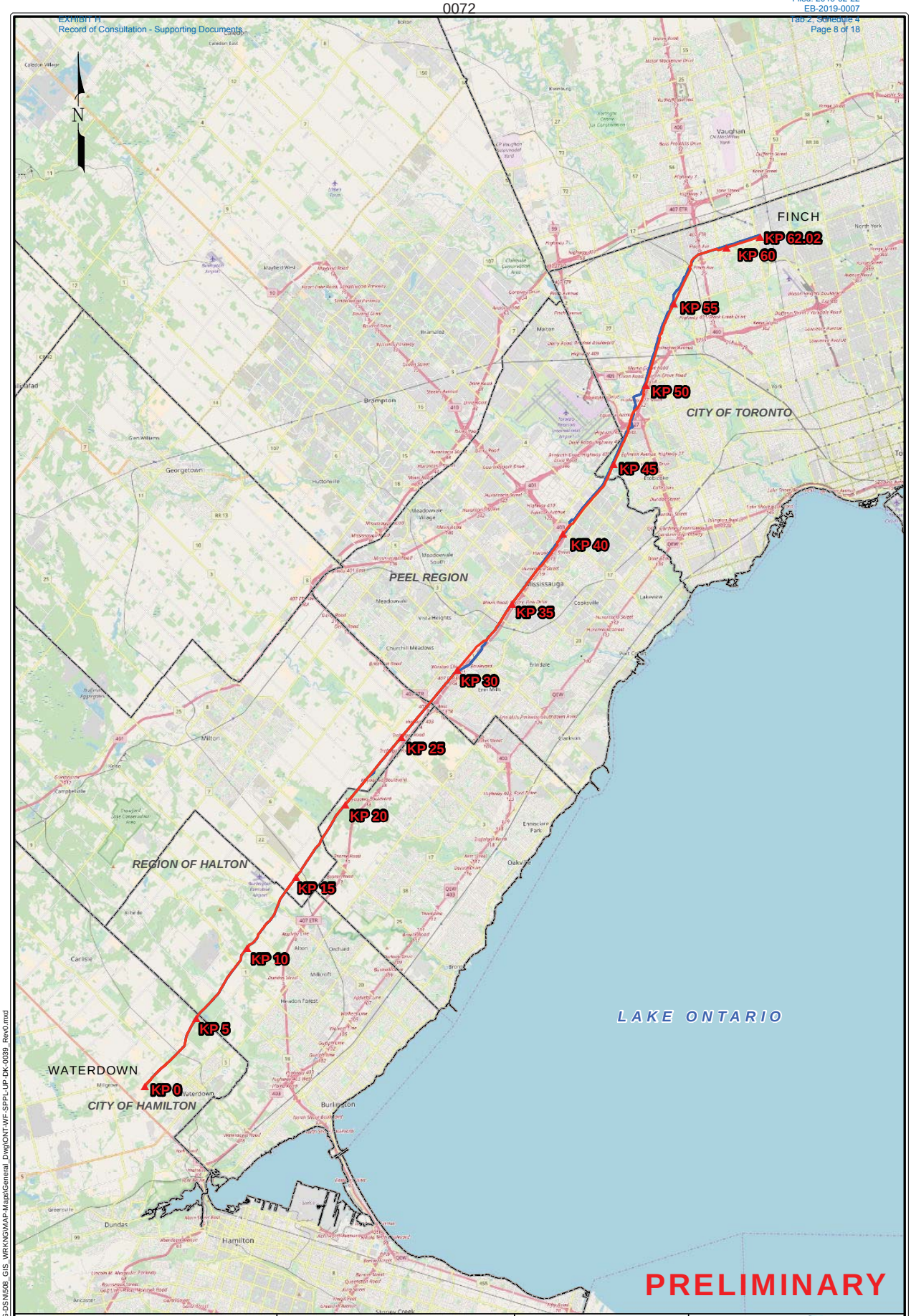
WATERDOWN TO FINCH PROJECT (NPS 12)
OVERVIEW ROUTE MAP (1:200,000)
GTA, ONTARIO

DRAWING: ONT-WF-SPPL-UP-DK-0039 **REV** A
SCALE: 1 cm=2 km **SHEET:** 1 OF 1

Document Path: P:\239770\500_ENG-DSN\508_GIS_WRKNGMAP-Maps\General_Dwg\ONT-WF-SPPL-UP-DK-0039_Rev0.mxd

Filed: 2019-02-22
EB-2019-0007
Tab 2, Schedule 4
Page 8 of 18

EXHIBIT H
Record of Consultation - Supporting Documents



LEGEND

- Kilometre Post
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Imperial

WATERDOWN TO FINCH PROJECT (NPS 12)
OVERVIEW ROUTE MAP (1:200,000)
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DRAWING: ONT-WF-SPPL-UP-DK-0039 **REV** A
SCALE: 1 cm=2 km **SHEET:** 1 OF 1

Document Path: P:\239770\500_ENG-DSN\508_GIS_WRKNGMAP-Maps\General_Dwg\ONT-WF-SPPL-UP-DK-0039_Rev0.mxd

Ministry of Energy, Northern Development and Mines

77 Grenville Street
6th Floor
Toronto ON M7A 2C1

Tel: (416) 325-6544

Ministère de l'Énergie, du Développement du Nord et des Mines

77, rue Grenville
6e étage
Toronto ON M7A 2C1

Tél: (416) 325-6544

Ontario

Indigenous Energy Policy

VIA EMAIL

September 25, 2018

Haudenosaunee Confederacy Chiefs Council
C/o Haudenosaunee Development Institute
P.O Box 714
Ohsweken, ON N0A 1M0

Re: Imperial Waterdown Pipeline Project

This letter is to notify you that the Ministry of Energy, Northern Development and Mines on behalf of Ontario has delegated the procedural aspects of consultation to Imperial Oil Limited for its' proposed Imperial Waterdown Pipeline Project in relation to the Ontario Energy Board's Leave to Construct approval process.

Imperial Oil is planning to redevelop a pipeline in order to provide fuel across the Greater Toronto and Hamilton Area, including jet fuel at Toronto Pearson International Airport, as well as gasoline and diesel fuel. The project consists of approximately 63 kilometers of the existing line with new pipe. The proposed pipeline will commence at Waterdown Station [43.33500° N, 79.93248° W], and will end at the company's terminal storage facility at North York's Finch Terminal [43.76652° N, 79.48878° W]. If approved, construction is anticipated to begin in 2019

I encourage representatives of your community to participate in efforts made by Imperial Oil Limited to consult your community on its proposed project so that you can receive project information and understand if there are any potential impacts on Aboriginal or treaty rights. The consultation process is an opportunity to provide your community's feedback to Imperial Oil Limited and the Crown, including any suggestions or proposals your community might have for mitigating, avoiding or accommodating any potential impacts to Aboriginal or treaty rights. Ministry officials are also available should you wish to contact the Crown directly. Please note that none of the foregoing should be taken to imply approval of this project.

Should you or any members of your community have questions regarding the material above, please contact Raina Crasto at 416-326-4571 or raina.crasto@ontario.ca and Shannon McCabe at 416-212-6704 or shannon.mccabe@ontario.ca.

Sincerely,



Morgan Owen
A/Manager
Indigenous Energy Policy

C: Ontario Energy Board
Ontario Pipeline Coordinating Committee (OPCC)
Jessie Malone, Environmental and Regulatory Advisor, Safety Security Health and Environment, Imperial Oil Limited

Waterdown to Finch Project - Stage 1 Archeology Report

Jennifer Liddell
To: tworowarchaeology@gmail.com, karl.j.hill@gmail.com, Todd Williams

Tuesday, Oct 16th, 2018
12:10 PM

Wayne

As requested, please find attached an electronic copy of the Stage 1 Archaeological Assessment conducted by Past Recovery Archaeological Consultants for the Proposed Waterdown to Finch Project on behalf of Imperial Oil Limited.

Regards

Kelly Williams
Community Relations Officer

1Attachments

Download All

E.1 WFP Stage 1 Archaeological Assessment_06Sept2018.pdf

Haudenosaunee Development Institute

November 5, 2018

Jessie Malone, P.Eng
Environmental and Regulatory Advisor
Safety Security Health and Environment, Imperial
505 Quarry Park Blvd. SE, Calgary, AB T2C 5N1

Dear Ms. Malone:

RE: Waterdown to Finch Project ('Project')
Our File No.: 030-126-003

Thank you for meeting with us on October 25, 2018. It was a pleasure meeting you and your team.

Introduction

As you are aware we requested the meeting further to Mr. Ballinger's letter of September 20, 2018 (received on September 24, 2018) which set out Imperial's intention to proceed with the Project. In this regard, we make reference to the Supreme Court of Canada in *Delgamuukw* where the court stated at paragraph 168 that:

> Of course, even in these rare cases when the minimum acceptable standard is consultation, this consultation must be in good faith, and with the intention of substantially addressing the concerns of the aboriginal peoples whose lands are at issue. In most cases, it will be significantly deeper than mere consultation. Some cases may even require the full consent of an aboriginal nation, particularly when provinces enact hunting and fishing regulations in relation to aboriginal lands.

As you are aware the *United Nations Declaration on the Rights of Indigenous Peoples* also speaks to consent at Article 19 where it states that:

> States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them.

Six Nations Grand River Territory • Suite 600 - 16 Sunrise Court • P.O. Box 714 • Ohsweken, Ontario N0A 1M0
Telephone • 519.445.4222 *Facsimile* • 519.445.2389 • hdi2@bellnet.ca

September 20, 2018 Imperial Correspondence

Receipt of your letter on or about September 24, 2018 was the first notification we received in relation to the Project.

We indicated that the Crown, and specifically, the Ministry of Energy, Mines and Northern Development ('Ministry') had not provided any notification in relation to the Project, despite knowledge, both real and constructive, that the Project would impair, interfere with, and otherwise infringe upon Haudenosaunee rights and interests including the Haudenosaunee's unsurrendered title interests upon the land where the Project is intended.

Mr. Ballinger's correspondence makes reference to a delegation of the procedural aspects of engagement. We confirm that this has raised serious concerns from our perspective in relation to the Honour of the Crown.

We indicated that the Crown is obligated to undertake a *prima facie* assessment of rights and interest's prior to delegating procedural aspects of engagement. As we have not been contacted in advance of the delegation there are questions as to the whether, the Crown has undertaken any such assessment and thereby properly discharged its obligations.

We confirm that we made the request that work on the Project be put on hold until such time as the Crown establishes that it has discharged its obligations and/or actually undertakes the *prima facie* assessment to determine the required nature and scope of engagement and what aspects can be delegated.

We confirm that the Ministry has provided you with letter setting out the delegation of the Crown's obligations and we confirm that you have advised that you will provide this correspondence. At the same time, we have requested all of the correspondence, memos, emails and other documents in your power possession and control passing between Imperial and the Crown which deal with Haudenosaunee engagement. We require these documents to understand how and when Haudenosaunee treaty rights and interest have been considered in determining the nature and scope of the purported engagement.

At the same time, we have also asked for all of Imperial's internal documents which may have been generated in response to the Minister's purported delegation. Imperial now stands in the shoes of the Crown and we require these documents to determine how Haudenosaunee treaty rights and interests have been considered, and at the same time, to meet the Haudenosaunee's reciprocal engagement obligations which require the Haudenosaunee to set out and clarify rights and interests. We require these documents without prejudice to our position that the exchange of documents, the review of rights and interests and the setting out and clarification of rights and interests was properly to have occurred prior to any purported delegation.

We would also note that this particular matter engages established treaty rights. As you may be aware the infringement of treaty rights is only lawful where it is justified and the Supreme Court of Canada has set out the basis for that justification. Notably, the justification involves the

discharge of fiduciary obligations on the part of the Crown. As you may be aware it is unlawful in most circumstances to delegate fiduciary obligations without the consent of the beneficiary – the Haudenosaunee Confederacy Chiefs Council.

We confirm that we have also asked Imperial to submit an application, and the associated fee, to the HDI (the standardized form is available from our website).

We confirm that a number of Crown actors are going to be granting approvals with respect to the Project and we have asked how and when engagement is to occur with respect to those approvals, and at the same time, whether there have been any further delegations.

For your ease of reference, we will require engagement from/with:

- Ontario Energy Board
- Infrastructure Ontario
- Niagara Escarpment Commission
- Ministry of Natural Resources and Forestry
- Ministry of Tourism Culture and Sport
- Ministry of Environment, Conservation and Parks
- Conservation Authorities (Please provide us with a list of the Conservation Authorities and we will be in touch with them directly to determine how they are proposing to discharge their obligations)
- Fisheries and Oceans Canada
- HONI; and
- IO

We have copied all of the above and would like to take the opportunity in this letter to formally request that the above contact our offices with respect to commencement of the engagement process.

Archaeology and Geological Testing

We also wish to confirm that a significant amount of work has been undertaken on the Project and it is our opinion, subject to some future agreement, that this work will need to be re-done to ensure that honour of the Crown is upheld.

We also confirm our review of Ontario's Archaeology Standards and Guidelines and confirmed that the Guidelines have, to date, not been followed.

We also raised concerns with the manner in which archaeology is proceeding and how it does not meet with the required level of diligence which the Haudenosaunee require to ensure that our commitments to our obligations are maintained. As we indicated these obligations are over and above those set out in the Guidelines. You have advised that you will advise if you are prepared to amend the process going forward to honour our modest request.

In particular there appears to an issue with ‘plowing’ in relation the archaeology. We acknowledge that you confirmed that plowing is best practices but that to date you are not plowing throughout the entirety of the proposed Project. We confirm that you will be providing us with a map setting out the areas that have been plowed versus the area that has not been plowed.

We would ask that you please provide the contact information for your Consultant Archaeologist so that we can follow-up with that person directly as they have specific regulatory and professional obligations vis a vis engagement.

Current Line

You advised that you intend to leave the current line in the ground and we advised that this a very serious impairment of our environmental/spiritual obligations to what we refer to as our mother the earth. You advised that the Technical Standards and Safety Authority (TSSA) is responsible for approval in relation to the current line and will be responsible for any approvals in relation to the established line. We would ask that you immediately notify the TSSA of our objections so that we may begin the engagement process with TSSA. At the same time this correspondence is copied to the TSSA and we are providing same as a notification for a request for engagement with the TSSA.

We confirm that we had many additional questions and concerns in relation to the Project but that time constraints required you and your team to leave the meeting.

We look forward to hearing from you and we are proposing meeting on Tuesday November 13, 2018 at which time we anticipate having received and reviewed your application.

Again, it was a pleasure meeting with you and HDI looks forward to a relationship with Imperial that is based on mutual respect for our respective rights and interests.

Respectfully,

R. Aaron Detlor

Maps Drive Forms

EXHIBIT H
Record of Consultation - Supporting Documents

CanACRE



Robert Ballinger
Area Manager, East Canada
P: 519.333.7556
E: robert.e.ballinger@esso.ca

December 18, 2018

Aaron Detlor
Haudenosaunee Development Institute
16 Sunrise Court, Ste. 600
Ohsweken, ON N0A 1M0
Six Nations of the Grand River Territory
519.445.4222

Dear Mr. Detlor:

Imperial Oil Limited (Imperial) received your correspondence to Jessie Malone, dated November 5, 2018, regarding the October 25th meeting. As stated in our letter to HDI, dated September 20, 2018, Imperial respectfully declines completing the application. Imperial's explicit intention is to follow the provincial regulatory processes and guidelines related to obtaining approval for the Sarnia Products Pipeline Waterdown to Finch Project. Our objective is to complete a thorough Leave to Construct Application for submission to the Ontario Energy Board. The delegation of the procedural aspects of the Crown's duty to consult are specifically in relation to the regulatory and approval processes of the Ontario Energy Board. It is Imperial's intention to engage and consult with the Haudenosaunee Confederacy Chiefs Council (HCCC) as directed by the Ministry of Energy, Northern Development and Mines (ENDM) to determine the specific impacts of project activities on Aboriginal and treaty rights.

As the project proponent, Imperial has and is willing to provide project information to the HCCC in care of the Haudenosaunee Development Institute (HDI) to assist in determining these impacts. Once these impacts are identified and communicated to us, Imperial invites the HCCC and HDI to work collaboratively with the project team on solutions to reduce or mitigate these identified impacts. Project information does not include the release of the internal correspondence requested by HDI in your letter dated November 5, 2018.

Should you wish to discuss the delegation of the procedural aspects of the Crown's duty to consult to Imperial for this project, you may want to contact ENDM directly. Here are the suggested contacts:

Raina Crasto, Policy Advisor
Indigenous Energy Policy
Ministry of Energy, Northern Development and Mines
Email: raina.crasto@ontario.ca Phone: 416-326-4571

Shannon McCabe, Senior Advisor
Indigenous Energy Policy
Ministry of Energy, Northern Development and Mines
Email: shannon.mccabe@ontario.ca Phone: 416-326-4571

We appreciate the time and resources required to review project information and participate in meetings. As such, we are open to providing reasonable project capacity funding to HDI within a mutually acceptable agreement. Thank you for proposing another meeting date for HDI and the project team. The Imperial project team is prepared to meet with HDI to engage in a respectful dialogue on the following topics:

1. Presentation of the Waterdown-Finch Project Information
2. Stage 1 Archaeology Report-Comments and Discussion
3. Stage 2 Archaeological Assessment-Discussion with Past Recovery to address archaeological test pitting and ploughing protocol and Ontario Archaeology Standards and Guidelines
4. Field Monitoring Program Review

If you have questions related to this correspondence or wish to schedule a meeting date to discuss the above items, please contact Kelly Williams, Community Relations at kelly.williams@esso.ca or 519-328-8681.

Respectfully,

RBallg

Robert Ballinger

Waterdown to Finch General Inquiries
questions@imperialon.ca
416.586.1915

May 22, 2018

Huron-Wendat Nation
255, place Chef Michel Laveau
Wendake, Quebec
G0A 4V0

Dear Huron-Wendat Nation,

Imperial's Sarnia Products Pipeline (SPPL) is important infrastructure that provides fuels used by households and businesses across the Greater Toronto and Hamilton Area. This includes a significant portion of jet fuel at Toronto Pearson International Airport, as well as gasoline and diesel fuel that keeps people, goods and services moving throughout the region.

Operating safely in the region for many years, Imperial is planning to replace approximately 63-kilometres of the line with new pipe. This section runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area.

The Waterdown to Finch Project is proactively replacing a segment of pipeline to deliver continued safety and reliability.The existing pipeline will continue to operate until the project is complete.

Environmental and cultural assessments will start in the spring of 2018. Subject to provincial regulatory review and receipt of all permits, Imperial anticipates construction to begin in 2019.

Most replacement work will take place in close vicinity to the existing pipeline. Imperial representatives will also be communicating with landowners where proposed activities may be taking place in the coming weeks. Over the duration of the project, we will work collaboratively and communicate proactively to minimize construction impacts.

Please accept this letter as a formal notification of Imperial's Waterdown to Finch Project. Imperial would like to schedule a meeting to discuss the Waterdown to Finch Project, share information and answer questions. If you would like to learn more about the Waterdown to Finch Project, please contact us at questions@imperialon.ca or leave a message at 416-586-1915.

In addition to the project brochure and meeting offer, you can also visit our project website at imperialoil.ca/waterdowntofinch for an overview of the proposed replacement work, including project facts, work schedule, construction practices and community engagement efforts.

We look forward to connecting.

Sincerely,

Christopher Plain
Indigenous Relations Lead – Ontario Region
Imperial Oil Limited

Imperial

Waterdown to Finch Pipeline Project
July 17, 2018
Meeting with Huron-Wendat Nation Summary Notes

**Please note that these meeting notes provide a summary of the discussion; however, these are not detailed minutes of the meeting. While we have endeavored to document the main points, some discussion items may not be included.*

Participants	
Huron-Wendat Nation • Dr. Louis Lesage, Director of the Nionwentsio Office (LL) • Maxime Picard, Project Coordinator, Ontario File Coordinator (MP) • Mélanie Vincent, Project Coordinator, Ontario File Coordinator (MV)	*Imperial* • Chris Plain, Indigenous Relations Lead – Ontario Region (CP) • Kelly Williams, Indigenous Relations (KW) • Leanne Dohy, Socio-economic Advisor (LD) • Jessie Malone, Environment and Regulatory Advisor (JM) *ERM* • Jim Chan, Senior Consultant (JC) • Matthew Scoular, Senior Consultant (MS) *Past Recovery* • Brenda Kennett, Archaeologist (BK)

Meeting Objectives

- Early Notification to Huron-Wendat Nation
- Overview presentation of Imperial's Waterdown to Finch Project (the Project)
- Discussion on Huron-Wendat's interests in archaeology field work

Topic	Discussion
Location	• ERM office, Toronto, Ontario
Agenda	• Welcome/ Open Meeting • Introductions • Safety Moment • Overview of Huron-Wendat Work • Overview of Waterdown to Finch Project • Overview of Archaeology Planning • Archaeology Draft Stage 1 Results • Planned Stage 2 Methods • Geotechnical Assessment • Engagement and Framework Discussion • Meeting Adjourned
Materials	• Imperial's Sarnia Products Pipeline Waterdown to Finch Powerpoint presentation July 2018
Introduction	• Imperial (CP) opened the discussion by thanking everyone for the opportunity to meet.

Topic	Discussion
	• There is a lot of planning to get everyone involved in-person. Thank you again and it is a great pleasure to meet you. Thank you for the background about the Nation and for making your way to Ontario.
Safety Moment	• Imperial (LD) described Imperial's focus on safety. LD provided a safety moment. When staying at a new hotel, using the stairs is good way to familiar yourself of the emergency exits in the event of a real emergency.
Project Overview	• Imperial (JM) provided a Project overview. Imperial's Sarnia Products Pipeline (SPPL) runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area. • SPPL is important infrastructure to the Greater Toronto and Hamilton Area (GTHA) • SPPL supplies a significant portion of refined product used at Toronto Pearson International Airport, including gasoline and diesel that keeps people, goods and services moving. • SPPL has operated in the region for many years. It has been in operation since the 1950s. The line is ~65 years old and as a proactive measure, Imperial is planning to replace approximately 63 km of the 12" line with new 12"pipe. The pipeline will continue to operate until the replacement segments are prepared for operation. The existing line will be cleaned, tested and deactivated in- place. • Imperial has initiated discussions with the Ontario Energy Board (OEB). The major regulatory process will be the filing of the leave to construct application with the OEB. • Imperial has kicked off engagement with regulators, landowners and Indigenous communities. At the same time, we have initiated the engineering design process. As a result of our early engagement, we look to incorporate feedback into the project design process. • We have started environmental field surveys to capture the field work during the seasonal windows. Field work is planned for summer and fall. Archaeology field work is timed for the summer/fall. • Overview of timelines (as described in the PowerPoint presentation), Spring 2018 project launch; Summer/Fall 2018 Community Information Sessions; Winter/Spring 2019 submission to OEB; Summer 2019 engineering design complete; Late Fall 2019 pre-construction communication. 2020 is the potential start date. • Replacement segment is like for like, meaning 12" in diameter for 12" pipeline over a 63 kilometre segment. Product moved is the same and the line will continue to operate, to minimize disruption during construction. • Monitored 24 hours a day, 365 days a year. The western portion of the line is flown every week; eastern portions that cannot be flown are ground patrolled. • There are two proposed types of construction methods: open cut construction and trenchless Horizontal Direction Drilling (HDD). JM indicated that notionally, HDD is planned for ~1/3 of the line. Construction method will be informed by geotechnical information and environmental considerations. Imperial will look to avoid major

Topic	Discussion
	watercourses, major road crossings, provincially significant wetlands and important archaeological features by using HDD as much as possible. • Huron-Wendat (LL) asked about the deactivation of the line. • Imperial (JM) responded that the current pipeline will be deactivated and removed from service. It will be cleaned, filled with nitrogen (inert gas to detect pressure monitoring), maintained with cathodic protection, and monitored and left in place. In addition, along the HONI corridor, there are other lines and infrastructure. We do not want to impact the other lines. Deactivation is undertaken to reduce impacts.
Huron-Wendat Work	• Huron-Wendat (LL) – provided an introduction to the Huron-Wendat and its work in Ontario. The Huron-Wendat ancestral territory is called the Nionwetsio in the Wendat language. The Huron-Wendat people hunted, fished, gathered in a territory that spans Quebec and Ontario [and more]. Today the Huron-Wendat Nation is comprised of about 4000 members, on and off-reserve. The Huron-Wendat band council is headquartered in Wendake, Quebec. • Huron-Wendat is not a member of the Chiefs of Ontario. • While the Huron-Wendat did not signed a treaty [with the Crown], the Huron-Wendat have not abandoned lands here [in Ontario]. There are many Huron-Wendat archaeological sites, both known and to be discovered in Ontario. The Huron-Wendat has a museum in Wendake with curated artifacts that are brought back to the community. In the event of findings of Huron-Wendat human remains, ossuaries, human remains will stay in-place. We would not accept excavation of human remains. • LL noted that the Huron-Wendat works in collaboration with companies, Ministries and other First Nations. • Imperial (CP) asked if the Huron-Wendat has had discussions with other Nations over shared territory related the archaeological sites. • Huron-Wendat (LL and MP) responded that the Huron-Wendat has a positive relationship with other Nations. We have a positive working relationship with the Nations, companies and governments. It is our practice to enter into agreements with companies for field monitoring. • Imperial (CP) thanked the Huron-Wendat for sharing.
Archaeological Assessment	• Past Recovery (BK) provided a quick overview of the firm and archaeology experience in Ontario. • BK provided an overview of the archaeological assessment planning. Draft Stage 1 report for the corridor is nearly complete and needs a final review. We are planning to provide to Indigenous communities for review and comment and planning to submit results of the Stage 1 report to MTCS. • BK noted that the western part of the corridor is mainly rural and the eastern part is more industrial/commercial/residential. ~2/3 of the corridor is on the existing Hydro One (HONI) corridor. • BK confirmed that through the Stage 1 review much of the study corridor contains archaeological potential for both pre-Contact and post-Contact archaeological resources.

Topic	Discussion

	• BK confirmed that sections exhibiting areas of extensive subsurface disturbance and therefore no longer hold potential were identified in Stage 1.
	• BK confirmed that some sections have been subject to previous archaeological assessments that have cleared these areas of archaeological concerns.
	• BK confirmed that 11 registered archaeological sites were identified within, or in close proximity, to the project area including the Huron-Wendat Parsons site (AkGv-8).
	• MP provided information on other potential Huron-Wendat sites and previous archaeological assessments that may be associated with the study corridor. BK noted challenges with MTCS sites and report database. Past Recovery will up-date the draft Stage 1 report as required to ensure that it is a comprehensive as possible.
	• BK stated that lands associated with the Niagara Escarpment and 15 major river crossings are considered to have a high potential for Indigenous archaeological sites;
	• BK stated that the land use history produced in the draft report has been informed by the archaeological record from a settler perspective. We are seeking input from First Nations regarding your community's land use history and cultural narrative in order to provide a more inclusive context for the project. We are also seeking advice on cultural places of concern to your community that may not have been identified in the draft Stage 1 report so that appropriate procedures and protocols are followed as the project progresses.
	• BK noted that communities with an interest in the project area are anticipated to include the following:
	  • Mississaugas of the New Credit First Nation
	  • Six Nations of the Grand River
	  • Huron-Wendat Nation
	  • Haudenosaunee Development Institute
	  • Communities will have an opportunity to review and comment on the draft Stage 1 assessment report. Field Monitors will be included in the Stage 2 archaeological fieldwork.
	  • BK noted that the proposed Stage 2 methodology and plan is comprehensive. Assessment of all areas of archaeological potential within the corridor will involve test pit shovel testing at 5 m intervals or field ploughing and surveying.
	  • In addition to the Stage 2 archaeology fieldwork for the line, the trenchless HDD design methods require geotechnical assessment. Geotechnical assessment will start in the summer. We have met with the MTCS to confirm the archaeology pre-clearance requirements to support the geotechnical borehole investigation program.
	  • There are approximately, 140 geotechnical borehole locations within existing utility corridor, of which ~97 are located within areas of archaeological potential. Stage 2 testing at borehole locations in areas of archaeological potential will include the excavation of 1 to 4 test pits. Field monitors would be involved in this archaeology work.
	• Imperial (JM) noted that we are proposing to HDD beneath the Parsons site (AkGv-8) to avoid impacts. Imperial recognizes that Huron-Wendat have interest in the site.

Topic	Discussion
	• BK explained that Imperial's proposed approach is for two boreholes in proximity to the Parsons site: boreholes will be preceded by a 1 x 1 m unit at each borehole location on either side of the site to avoid potential impacts. • BK noted that this same approach would be used for any other boreholes in the immediate vicinity of other identified sites. • BK indicated that assessment of the corridor east of the presently defined limits of the Parsons site would also involve the hand excavation of 1 x 1 m units to verify the site extent. Appropriate protocols for this and other sites will be developed with the Huron-Wendat.
Indigenous Engagement	• Huron-Wendat (LL) asked how the list of communities is determined. • Imperial (CP) responded that Ontario would provide us with a list of communities to consult. We have to meet those obligations of the regulators. Communities are not only those with treaties but also have an interest on their traditional territories. We respectively work with communities. Part of our engagement is to better understand the expectations of communities. For example, if there is a request for ceremonies, we will respectfully allow that to happen in the means that the community wishes. It is important for us to speak directly to the Nations. We want to understand all the concerns and expectations of the Nations. Most Nations have wanted Field Monitors on site during the archaeology field work. • CP noted that we want your feedback and participation as Field Monitors. • Imperial (CP) asked if the Huron-Wendat have additional expectations for engagement with the community or Council as part of your protocol. If so, we are able to do so to the community's satisfaction, if requested or required to do so. • Huron Wendat (MP) responded that at this time, the current level of engagement and information sharing is sufficient. The next step is to complete the agreement for the participation of Field Monitors. We would welcome a visit to Wendake, Quebec later. • Huron-Wendat stated that they would like their monitors to participate in environmental (Wildlife, Vegetation and Wetlands, Fisheries) field surveys as well as archaeological assessments. • The Huron-Wendat and Imperial, with support from ERM, are finalizing an agreement for the participation of Huron-Wendat Monitors during archaeology and environmental field work.

Summary of Actions	Who
• Huron-Wendat and Imperial, with support from ERM, to final agreement for the participation of Huron-Wendat Monitors during archaeology and environmental field work.	

Potential topics to record for Isometrix reporting:

Topic	Discussion

☐	Accidents and Malfunctions	☐	Aquatic Resources and species
☐	Air Emissions and Noise	☒	Archaeology
☐	Alternatives	☐	Community Contribution Request
☐	Cultural Heritage Resources	☐	Groundwater
☐	Emergency Response	☒	Operational Issue
☒	Excavation/Damage Prevention/Pipeline Location		
☐	Right-of-Way/Access Agreement	☐	Traditional use
☐	Safety, Health and Environment	☐	Vegetation
☐	Socioeconomic (labour, economy, social)	☐	Wetlands
		☐	Wildlife and Habitat

Imperial’s Sarnia Products Pipeline

Waterdown to Finch Project



July 2018

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Agenda

- Welcome/ Open Meeting
- Introductions
- Safety Moment
- Overview of Huron-Wendat Work
- Overview of Waterdown to Finch Project
- Overview of Archaeology Planning
  - Archaeology Draft Stage 1 Results
  - Planned Stage 2 Methods
  - Geotechnical Assessment
- Engagement and Framework Discussion
- Meeting Adjourned



Safety Moment

Overview of Huron-Wendat work

- Agenda topic

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Imperial's Sarnia Products Pipeline

- Imperial's Sarnia Products Pipeline (SPPL) runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area
- SPPL is important infrastructure to the Greater Toronto and Hamilton Area (GTHA)
    - SPPL supplies a significant portion of product used at Toronto Pearson International Airport, and gasoline and diesel that keeps people, goods and services moving
- SPPL has operated safety in the region for many years



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Continued safety and reliability for the GTHA

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- Imperial is planning to replace approximately 63 km of the line with new pipe
- The pipeline will continue to operate safely until the replacement segments are prepared for operation
- Imperial will apply for a Leave to Construct from the Ontario Energy Board, which includes an assessment of environmental effects and engagement with landowners, communities and Indigenous groups
    - Imperial will respect landowners' property and will seek to minimize disruptions
    - Imperial recognizes the importance of collaboration with Indigenous groups, municipalities and other community stakeholders



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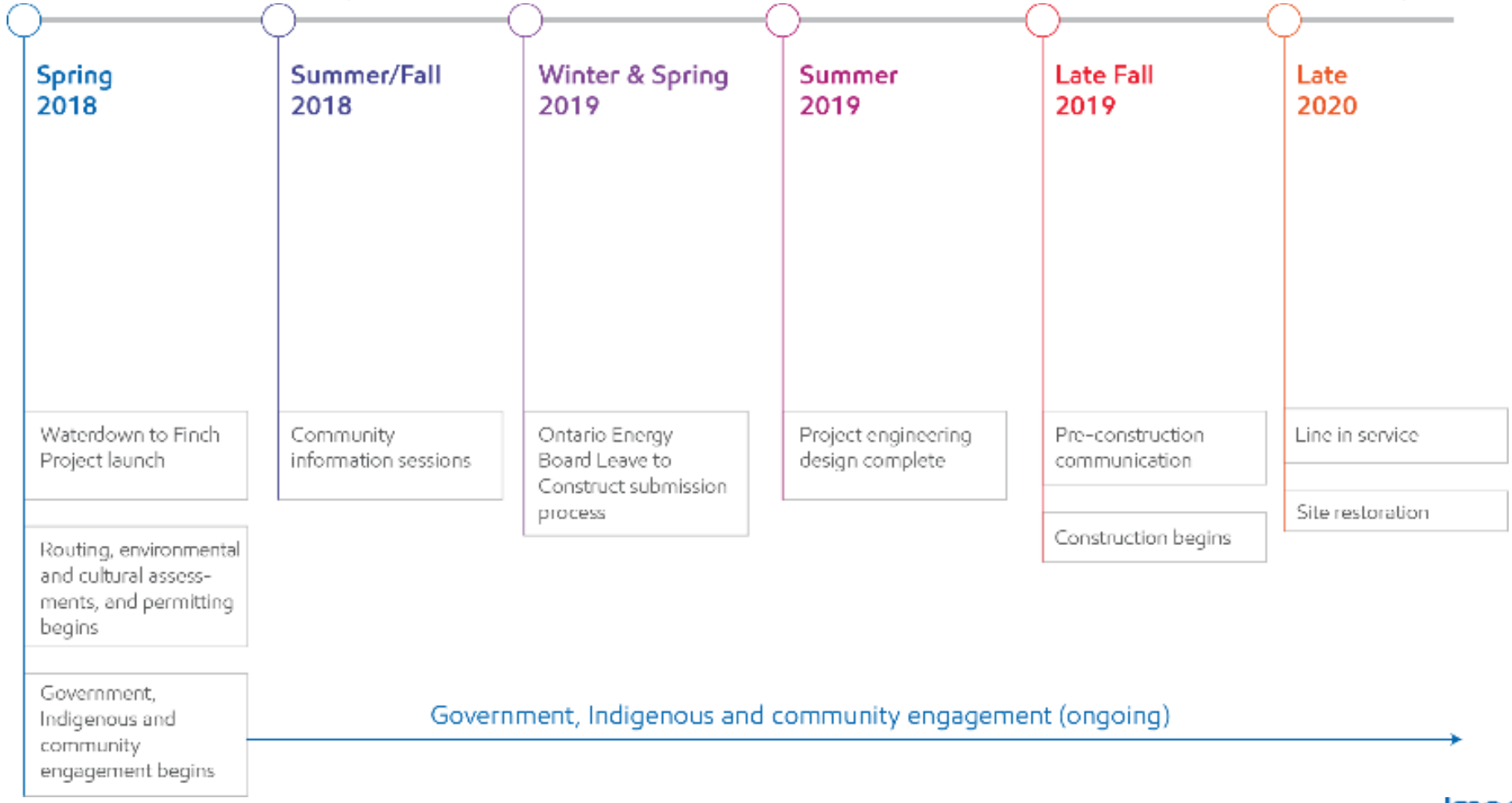
Timeline*

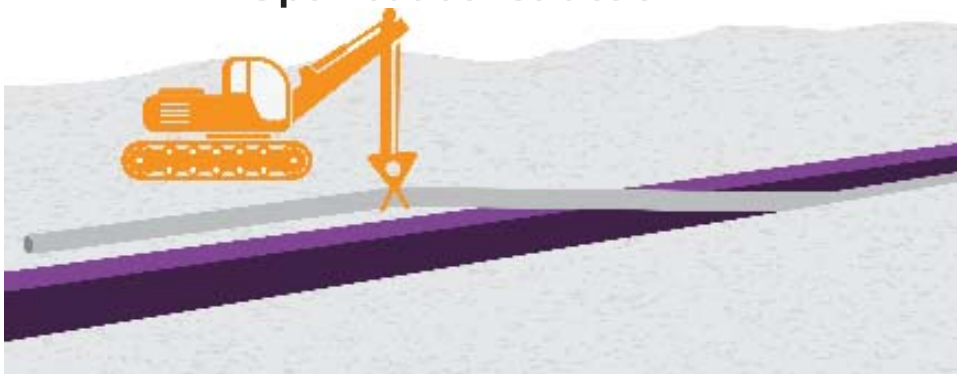


* Subject to regulatory and permitting approvals

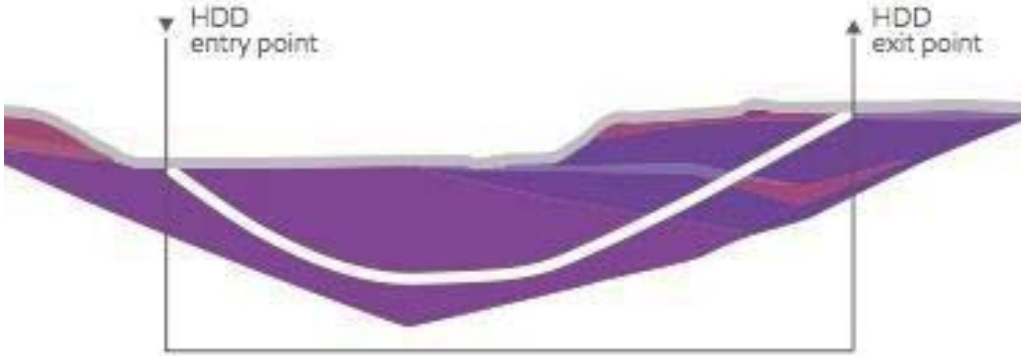
Minimizing construction impacts

- Imperial will work with landowners, permitting authorities and different levels of government so construction impacts are as limited as possible
- Engineers and environmental surveyors work together to develop the pipeline route that minimizes impact to the environment and community
- Deactivated pipe will be removed from service, cleaned, filled with nitrogen and left in place to reduce environmental impacts
- Based on engineering and environmental surveys, Imperial will perform one of two construction techniques:

Open cut construction



Trenchless technology



Discussion

Working Together on Archaeology Planning

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Past Recovery
Archaeological Services Inc.

About Us

- Past Recovery, established as a partnership in 2000, has conducted over 300 Stage 1 through Stage 4 archaeological assessments in Ontario since incorporation in 2013
- Brenda Kennett, M.A. and Jeff Earl, M.Soc.Sc., principals, have over 50 years of combined experience
- Located in Perth, Ontario, Past Recovery conducts archaeological assessments across eastern Ontario, as well as undertaking projects further afield in central, northern and southwestern Ontario



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Past Recovery
Archaeological Services Inc.

About Us

Relationships with:

- Algonquins of Ontario
- Williams Treaties First Nations
- Mohawk Council of Akwesasne
- Mohawks of the Bay of Quinte

- Jessalyn Miller, B.A., Staff Archaeologist, has also previously worked with Indigenous Field Liaison Representatives from MNCFN, Six Nations, HDI and Huron-Wendat Nation since 2013

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Preliminary Archaeological Stage 1 Results

Archaeological Potential

- Much of the study corridor contains archaeological potential for both pre-Contact and post-Contact archaeological resources
- Sections of the corridor exhibit areas of extensive subsurface disturbance and therefore no longer hold potential
- Some sections have been subject to previous archaeological assessments that have cleared these areas of archaeological concerns



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Preliminary Archaeological Stage 1 Results

Archaeological Concerns

- 11 registered archaeological sites were identified within, or in very close proximity, to the project area including the Parsons site (AkGv-8) and 5 other pre-Contact Indigenous sites (a further 2 with cultural tradition unknown but likely Indigenous)
- Lands associated with the Niagara Escarpment and 15 major river crossings are considered to have a high potential for Indigenous archaeological sites
- The Credit River Valley, is a designated cultural landscape
- Historical mapping between 1858 and 1878 indicates historical settlements and associated features, including a small number of pioneer cemeteries, on lots associated with the corridor



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Preliminary Archaeological Stage 1 Results

Historical Context and Cultural Overview

- The land use history produced in the draft report has been informed by the archaeological record from a settler perspective
- We are seeking input from First Nations regarding your community's land use history and cultural narrative in order to provide a more inclusive context for the project
- We are also seeking advice on cultural places of concern to your community that may not have been identified in the draft Stage 1 report so that appropriate procedures and protocols are followed as the project progresses



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Indigenous Engagement

- Communities with an interest in the project area are anticipated to include the following:
  - Mississaugas of the New Credit First Nation
  - Six Nations of the Grand River
  - Huron-Wendat Nation
  - Haudenosaunee Development Institute
- Communities will have an opportunity to review and comment on the draft Stage 1 assessment report
- Field Liaison Representative Monitors will be included in the Stage 2 archaeological fieldwork



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Proposed Archaeological Stage 2 Methods

Project Impact Mitigations

- Assessment of all areas of archaeological potential through shovel testing at 5 m intervals or pedestrian survey of ploughed fields at 5 m intervals
- Trenchless HDD boring at major river crossings
- Trenchless HDD boring beneath the Parsons site (AkGv-8) to reduce impacts

Factors Limiting Archaeological Potential

- Visible disturbance into subsoils (described in Stage 1)
- Soil disturbances associated with the placement of previous utilities
- Areas of previous archaeological assessments and cleared of further archaeological concerns
- Permanently wet areas



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Geotechnical Assessment

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- ~140 geotechnical bore hole locations within existing utility corridor
  - ~97 are located within areas of archaeological potential
- Exiting infrastructure will be used as much as possible for access (e.g., roads, driveways, paths, etc.)
- No soil stripping
- Equipment:
  - Low ground pressure wide track or tired rigs (hollow stem auger)
  - Tired support vehicle
- Drilling scheduled July to September 2018
- Borehole locations to be cleared of archaeological concern prior to drilling via targeted Stage 2 archaeological assessment



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Discussion

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For more information

W: imperialoil.ca/waterdowntofinch
T: 416.586.1915
E: questions@imperialon.ca

Ministry of Energy, Northern Development and Mines

77 Grenville Street
6th Floor
Toronto ON M7A 2C1

Tel: (416) 325-6544

Ministère de l'Énergie, du Développement du Nord et des Mines

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6e étage
Toronto ON M7A 2C1

Tél: (416) 325-6544

Ontario

Indigenous Energy Policy

VIA EMAIL

September 25, 2018

Grand Chief Konrad Sioui
255 place Chef Michel Laveau
Wendake, QC
G0A 4V0

Re: Imperial Waterdown Pipeline Project

Dear Grand Chief Sioui:

This letter is to notify you that the Ministry of Energy, Northern Development and Mines on behalf of Ontario has delegated the procedural aspects of consultation to Imperial Oil Limited for its' proposed Imperial Waterdown Pipeline Project in relation to the Ontario Energy Board's Leave to Construct approval process.

Imperial Oil is planning to redevelop a pipeline in order to provide fuel across the Greater Toronto and Hamilton Area, including jet fuel at Toronto Pearson International Airport, as well as gasoline and diesel fuel. The project consists of approximately 63 kilometers of the existing line with new pipe. The proposed pipeline will commence at Waterdown Station [43.33500° N, 79.93248° W], and will end at the company's terminal storage facility at North York's Finch Terminal [43.76652° N, 79.48878° W]. If approved, construction is anticipated to begin in 2019

I encourage representatives of your community to participate in efforts made by Imperial Oil Limited to consult your community on its proposed project so that you can receive project information and understand if there are any potential impacts on Aboriginal or treaty rights. The consultation process is an opportunity to provide your community's feedback to Imperial Oil Limited and the Crown, including any suggestions or proposals your community might have for mitigating, avoiding or accommodating any potential impacts to Aboriginal or treaty rights. Ministry officials are also available should you wish to contact the Crown directly. Please note that none of the foregoing should be taken to imply approval of this project.

Should you or any members of your community have questions regarding the material above, please contact Raina Crasto at 416-326-4571 or raina.crasto@ontario.ca and Shannon McCabe at 416-212-6704 or shannon.mccabe@ontario.ca.

Sincerely,



Morgan Owen
A/Manager
Indigenous Energy Policy

C: Ontario Energy Board
Ontario Pipeline Coordinating Committee (OPCC)
Jessie Malone, Environmental and Regulatory Advisor, Safety Security Health and Environment, Imperial Oil Limited

Waterdown to Finch Project - Stage 1 Archaeological Assessment

Jennifer Liddell
To: louis.lesage@cnhw.qc.ca, melanievincent21@yahoo.ca, Maxime Picard

Thursday, Sep 27th, 2018
12:53 PM

Please find attached a copy of the Stage 1 Archaeological Assessment conducted by Past Recovery Archaeological Consultants for the Proposed Waterdown to Finch Project on behalf of Imperial Oil Limited. The present assessment has identified a number of registered archaeological sites within or in close proximity to the study corridor.

Imperial is seeking Indigenous review of the draft report to ensure that any traditional knowledge/information regarding traditional use sites, sacred sites, or other sites is reflected in the background documentation and the determination of archaeological potential. Let us know if you have any comments or questions, or any additional information that you feel may help inform the Stage 2 Assessment. A Stage 2 Archaeological Assessment is currently being undertaken to identify any as-yet unknown archaeological sites that may be impacted by the project.

Please provide a response by November 1, 2018 in order to inform the current field program.

Respectfully,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
519 339 2265 Tel
kelly.williams@esso.ca
Imperialoil.ca

1 Attachments

Download All

E.1 WFP Stage 1 Archaeological Assessment_06Sept2018.pdf

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Record of Consultation - Supporting Documents

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NATION
huronne-wendat

Bureau du
Nionwentsïo

Wendake, November 15, 2018

Ms. Kelly Williams
Community Relations Officer
Imperial Oil
602 Christina Street
Sarnia, ON N7T 7M5

By email: kelly.williams@esso.ca

Re: Waterdown to Finch Project – Stage 1 Archaeological Assessment

Dear Ms. Williams,

Further to your email addressed to the Huron-Wendat Nation dated September 27, 2018, on the Stage 1 Archaeological Assessment for the Proposed Waterdown to Finch Project, produced by Past Recovery Archaeological Services Inc., the Huron-Wendat Nation (HWN) would like to thank you for giving us this opportunity to provide comments and feedback.

We would like to point out that a highly important Huron-Wendat recorded archaeological site is located within the study area, i.e. the Parsons Site. Although the report indicates that a "*Specific consultation with the Huron-Wendat First Nation must also occur regarding impacts and mitigation options for the Parsons site (AkGv-8)*", it is important that the projected route of the Sarnia Products Pipeline be adapted to avoid impacts to the Parsons Site's integrity. Best practices in such cases are clear and based on its specific resolution, the Huron-Wendat Nation authorities repeatedly indicated that mitigation measures need to be in place in case of potential disturbance of our heritage.

With that in mind, the assessment concerns the proposed replacement of the Sarnia Products Pipeline (which was in operation by 1952), from Waterdown Station to Finch Terminal (approximately 61.5 km, following roughly the same route as the current line). It consisted in historical, environmental and archaeological research, as well as a site inspection to confirm areas of obvious recent disturbance.

The report offers brief but generally complete summaries of the pre and post-contact history of the region, the latter of which was especially thorough. The summary grows more detailed as it reaches more recent times.

On the historical section, it might be preferable to omit the reference to a "Glen Meyer complex" in the Early Iroquoian period. This is because the distinction between Glen Meyer (in the west) and Pickering (in the east) proposed by Wright in 1966 has long been criticized as arbitrary and erasing the variability present in the archaeological record, the

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Sans frais : 1-877-712-3767

local site sequences actually being more or less continuous (see for example Williamson's 1990 "The early Iroquoian period of southern Ontario", in C. H. Ellis & N. Ferris (Eds.), *The archaeology of Southern Ontario to A.D. 1650*, or, for a more recent publication, Birch's 2015 "Current Research on the Historical Development of Northern Iroquoian Societies", *Journal of Archaeological Research* vol. 23).

Also, with regards to the Huron and Petun, it is understandable for such a short summary not to state the relatively small differences between these two groups, but it seems dismissive to simply state that "they can effectively be discussed as one nation", since that is not true all the time, but only in the context of this short summary.

From an archaeological point of view, some areas of the study corridor had already been identified as having archaeological potential in the archaeological master plans developed by the cities of Toronto and Hamilton. Additionally, 23 previous archaeological assessments included lands in or adjacent to the study corridor. The report notes that there could be other assessments, which might not have been found because of the limits of the MTCS Archaeological Report Database. The limits of the Ontario Archaeological Site Database were also stated. The consultation of previous assessments permitted the identification of some areas of the current study corridor as cleared of archaeological concern. A number of previously recorded archaeological sites were also identified. There are 121 registered sites within a one-kilometer radius of the study area, and 11 of them are directly in the study corridor or within 50 meters of it. A lot of these sites were determined to be disturbed, were comprised of a single artifact, or very recent ones. However, one of the 11 sites is the Parsons site (AkGv-8), and as previously stated, the importance of this Late Woodland Wendat site remains almost completely preserved and unexcavated. It is assumed that this site, situated within the study area, retains further Huron-Wendat cultural and heritage material.

A separate Cultural Heritage Assessment for the project is in the process of being completed by Unterman McPhail Associates, but the current archaeological assessment also included a research of the Local Cultural Heritage Resources, which found 22 listed or designated properties within 300 meters of the study area, as well as five Heritage Plaques. The report includes a list of the known cemeteries near the study corridor. As environmental factors influence the archaeological potential of a region, the report also depicted the environmental context of the study corridor.

The current archaeological assessment included a property inspection, consisting of regular spot checks throughout the study corridor. Deep and extensive disturbances were confirmed for some areas, which are indicated on the maps at the end of the report, but most of the study corridor appeared to be free of visual disturbances.

The conclusions of the report were that parts of the study area have shown characteristics indicating potential for the presence of archaeological resources associated with pre-Contact Indigenous settlement and/or land uses (within 300 meters of primary and secondary water sources; within 300 meters of known Indigenous archaeological sites; along the Niagara escarpment, which is a distinctive land formation and an area of elevated topography).

Additionally, parts of the study area have characteristics indicating potential for the presence of archaeological resources associated with post-Contact Indigenous and Euro-Canadian settlement and/or land uses (the characteristics noted above; within 300 meters of known Euro-Canadian archaeological sites; crossing multiple historic transportation routes; within 300 meters of multiple early Euro-Canadian settlements shown in 19th Century maps; presence of designated heritage properties and landscapes).

For small portions of the study corridor (indicated on the maps), the archaeological potential is considered to have been removed by various construction and earth moving activities in the past. These zones were identified during the property inspection or were evident in background documentation. They, as well as the zones identified in previous archaeological assessments as being of no further archaeological concern, do not require further archaeological assessments. Other areas of disturbance may exist, notably in the urban portions of the study corridor, but they will have to be confirmed by a Stage 2 assessment.

As for most of the study area, which exhibits potential for archaeological resources, the completion of a Stage 2 archaeological assessment is required prior to any planned development. The methods for the Stage 2 assessment will vary depending on the type of land (agricultural, residential, etc.).

The report regularly refers to the MTCS's 2011 Standards and Guidelines for Consultant Archaeologists. The sources that were consulted are always clearly stated, as are their limitations. The conclusions are logical. In summary, this report is satisfactory for the purposes of the Stage 1 assessment of this study area. The Huron-Wendat Nation is requesting to be consulted at every stage, especially regarding the Parsons site, and of course to provide liaisons for all field work. Mitigation measures must apply for any potential disturbance and adverse impacts to our heritage.

Please do not hesitate to contact our team should you have questions and to follow up with the next steps.

Sincerely,

Louis Lesage, Ph.D, Bio.
Director, Bureau du Nionwentsïo

Imperial

Waterdown to Finch Pipeline Project
December 10, 2018
Meeting with Huron Wendat Nation Summary Notes

**Please note that these meeting notes provide a summary of the discussion; however, these are not detailed minutes of the meeting. While we have endeavored to document the main points, some discussion items may not be included.*

Participants

Huron-Wendat Nation

- Dr. Louis Lesage, Director of the Nionwentsio Office (LL)
- Maxime Picard, Project Coordinator, Ontario File Coordinator (MP)
- Mélanie Vincent, Project Coordinator, Ontario File Coordinator (MV)
- Simon, Legal Counsel

Imperial

- Kelly Williams, Community Relations Advisor (KW)
- Jessie Malone, Environment and Regulatory Advisor (JM)

ERM

- Jim Chan, Senior Consultant (JC)
- Matt Scoular, Project Manager (MS)

Past Recovery

- Brenda Kennett, Archaeologist (BK)

Meeting Objectives

- Provide overview presentation of Imperial's Waterdown to Finch Project (the Project)
- Seek feedback on Field Monitor Program
- Share information on What We've Heard
- Share information on Leave to Construct process
- Discussion on Huron-Wendat needs and consultation expectations

Topic	Discussion
Location	• Meeting held at ERM's office, Toronto, Canada

Agenda	• Welcome
	• Introductions
	• Safety Moment
	• Overview of Waterdown to Finch Project (recap, if needed)
	• Archaeological Assessment and Planning
	  o Seeking Feedback on Field Monitor Program
	• Environmental Planning
	  o What We've Heard
	• Construction Methods
	  o Minimizing Construction Impacts
	  o HDD and HD Bore
	  o Video of horizontal directional drilling and pipeline deactivation
	• Leave to Construct process
	• Discussion
	  o Consultation Preferences
	• Meeting Adjourned

Topic	Discussion
Materials	• Imperial's Sarnia Products Pipeline Waterdown to Finch Powerpoint presentation December 2018
Introduction	• Imperial (KW) thanked everyone for taking their valuable time to met with us again in Toronto. • A round of introductions.
Project Overview	• Imperial (JM) provided a Project overview. Imperial's Sarnia Products Pipeline (SPPL) runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area. • SPPL is important infrastructure to the Greater Toronto and Hamilton Area (GTHA) • SPPL supplies a significant portion of refined product used at Toronto Pearson International Airport, including gasoline and diesel that keeps people, goods and services moving in the region. • SPPL has operated in the region for many years. It has been in operation since the 1950s. The line is ~65 years old and as a proactive measure, Imperial proposes to replace approximately a 63-kilometre segment of this line with new pipe. The Waterdown to Finch Project (the Project) is the replacement segment from the company's Waterdown pump station in rural Hamilton to the Finch terminal storage facility in Toronto's North York area. • Imperial has initiated discussions with the Ontario Energy Board (OEB). The major regulatory process will be the filing of the leave to construct application with the OEB. • Imperial has engaged with the public, municipalities, regulators, landowners and Indigenous communities. Since our last meeting, we have continued to advance Project engineering design. • Environmental field surveys were completed in spring, summer and fall to capture the field work during the seasonal windows. Archaeological assessment program and the geotechnical program field work are ongoing. • Overview of timelines (as described in the PowerPoint presentation), Spring 2018 project launch; Summer/Fall 2018 Community Information Sessions; Winter/Spring 2019 submission to OEB; Summer 2019 engineering design complete; Late Fall 2019 pre-construction communication. 2020 is the potential start date. • There are two proposed types of construction methods: open cut construction and trenchless: Horizontal Direction Drilling (HDD and Horizontal Directional Bore (HD Bore)). Construction method has been informed by geotechnical information and environmental considerations. Imperial will look to avoid major watercourses, major road crossings, provincially significant wetlands and important archaeological features by using HDD/HD Bore. • JM explained that the current pipeline will remain in operation until the new line is constructed, tested and put into service. The old pipeline will be deactivated and removed from service. It will be cleaned, filled with nitrogen (inert gas to detect pressure monitoring), maintained with cathodic protection, and monitored and left in place.
	•

Topic	Discussion
Archaeological Assessment	• Past Recovery (BK) noted that the draft Stage 1 Archaeological Assessment report was provided to Huron-Wendat Nation. Comments from Huron-Wendat received on November 19, 2018 will be incorporated into the draft Stage 1 Archaeological Assessment report. This will include revising the discussion of Glen Meyer/Picking and of Huron/Petun in the pre-Contact background section. BK asked if there are further comments? • MP indicated that at this time no further comments to add. Thank you for the opportunity to review and comment. • Huron-Wendat Nation has a strong interest in the Parsons site. Early engagement to work together will be very important. • Imperial showed a profile view map of the preliminary trenchless HDD construction method to avoid the Parsons site area. • Huron-Wendat Nation requested details on how to avoid disturbance to this area. • Imperial will provide a technical memo providing an explanation of the planned archaeological assessment and details of site-specific HDD avoidance and mitigation measures at this area for Huron-Wendat's review and comment. Imperial committed to providing this technical memo and will continue to work closely with Huron-Wendat. • LL suggested organizing a site visit of this area during the Stage 2 assessment next Spring.
Feedback on Field Monitoring Program	• KW I have met Jean-Luc (Field Monitor) on site, he is enthusiastic and the Project team crew has enjoyed working with him. Work has been collaborative and working well. • KW asked, from Huron-Wendat's perspective, how is the Field Monitoring Program going? • Huron-Wendat (MP) replied generally going well. It has been a positive experience. • Huron-Wendat (LL) asked what is the percentage of Stage 2 field work completed? • BK replied that approximately 25% completed. Work has been weather dependent. Crops have come off the field later than expected that has limited the ability to conduct pedestrian surveys in those areas. The field work will continue in the spring 2019. • KW - thank you for the feedback. • BK indicated that our Project team crews have been working well together and appreciated the participation in the Field Monitor program.
Environmental Planning	• ERM (MS) shared that we conducted environmental field surveys such as vegetation and wetlands, terrestrial, bird, bats, amphibians, and fish habitat. Field data is used to assist with Project planning, inform the scope of work for construction, help to avoid and mitigate impacts to the environment, and support permit applications. • Fish habitat assessments informed whether or not in-water work during construction will need to avoid the timing of sensitive fish life stages. • Vegetation and wetland surveys informed the presence of rare plants and wetlands which may need to be either avoided or environmental effects mitigated and/or compensated. We mapped the Provincially Significant Wetlands (PSW) and the Project design plans to avoid all of them.

Topic	Discussion
	• Groundwater and surface water studies identified water uses such as water wells and informed water management planning. • Alternatives: Regulatory, stakeholder and landowner engagement has influenced the alignment and construction methods. The Project is proposed within Imperial's existing right-of-way for the first 1/3 and then it enters the HONI utility corridor. This is the best alternative route to minimize impacts. The Project planning also includes alternative methods, in particular alternative construction installation methods (i.e. trench versus trenchless).

What We've Heard	• ERM (MS) presented information on what we've heard and how Imperial has responded and/or how the comment has helped influence the Project design.
	• Protecting natural heritage
	  • Conducted vegetation and wetlands, Species at Risk, and fish habitat field surveys. Scheduled construction outside of sensitive Species at Risk timing windows, where feasible.
	• Identifying route alternatives
	  • Avoid electricity transmission infrastructure by re-routing new pipeline within the existing Hydro One utility right-of-way and using alternate construction methods such as boring and directional drilling techniques to avoid sensitive surface areas.
	• Supporting emergency response preparedness
	  • Worked collaboratively with stakeholders to review emergency plan. Imperial collaborated with local emergency services and others in recent Emergency Response Exercise.
	• Minimizing impacts to local transportation networks
	  • Use of trenchless construction methods to avoid major roadways. Will implement traffic management plans and mitigation measures to minimize traffic impacts
	• Preserving known archaeological and cultural heritage resources
	  • Avoid known archaeological sites
	  • Engage Indigenous Field Monitors and consultation office on archaeological assessment planning and review. Worked collaboratively with Indigenous Field Monitors on archaeological assessments and environmental field surveys.
	• Completed an impact assessment on agricultural lands.
	• Providing detailed maps and online resources. An "online information session" with ongoing Project updates and detailed maps at imperialoil.ca/waterdowntofinch.

Leave to Construct process	• ERM (JC) provided an overview of the Leave to Construct (LTC) process, explained the LTC process and indicated the OEB regulatory consultation points. • Imperial is preparing the Environmental Report and planning to submit the LTC application in Q1 2019 to the Ontario Energy Board. We are in the pre-application phase and Imperial's consultative approach is to consult early. Feedback can be received at any time, regardless of the OEB's regulatory consultation points.

Topic	Discussion
	• Once application filed, the OEB will issue a notice to the public. Individuals/organizations/communities can provide letters of comment or participate as an intervener. OEB will organize a written/oral hearing to seek comments prior to the OEB Board's decision. • JC reiterated that our consultative approach is that feedback and comments/concerns can be raised at anytime for response and not dependent on OEB's regulatory points.
Discussion Consultation	• JM noted that a series of Community Information Sessions were recently held in municipalities. Imperial noted that we would be willing to offer a Community Information Session or an open house presentation in the community based on your preference and need. • JM noted that we can provide the shapefile and kmz files for the Project centerline showing the location of the planned trenchless construction methods. • MP suggested additional follow-up on other Imperial projects such as the Credit River Valley crossing and the integrity digs maintenance program. KW agreed. • Huron-Wendat (MV) is interested in discussing a framework protocol that sets out the relationship and expectations for projects in the area. • KW replied that Imperial would be open to discussing this further.
Closing	• Imperial (KW), Thank you very much for taking the time to meet with us.
	•

Summary of Actions	Who
• Continued participation of Huron-Wendat Nation in the Field Monitoring program.	KW
• Provide Huron-Wendat with mapping shapefiles, Google Earth files	KW
• Develop a technical memo describing archaeological assessment and site specific avoidance/mitigation measures for the Parsons site	KW/BK
• Follow-up discussion on the Credit Valley review project and the integrity dig maintenance program	KW
• Follow-up discussion on establishing framework protocol with Huron-Wendat Nation	KW

Potential topics to record for Isometrix reporting:

Topic		Discussion	
☐	Accidents and Malfunctions	☒	Aquatic Resources and species
☐	Air Emissions and Noise	☒	Archaeology
☒	Alternatives	☐	Community Contribution Request
☒	Cultural Heritage Resources	☒	Groundwater
☒	Emergency Response	☒	Operational Issue
☐	Excavation/Damage Prevention/Pipeline Location		
☐	Right-of-Way/Access Agreement	☐	Traditional use
☒	Safety, Health and Environment	☒	Vegetation
☐	Socioeconomic (labour, economy, social)	☒	Wetlands
		☒	Wildlife and Habitat

Waterdown to Finch General Inquiries
questions@imperialon.ca
416.586.1915

May 22, 2018

Linda Norheim
Manager, Lands, Resources and Consultations
Métis Consultation Unit
Métis Nation of Ontario Head Office
Suite 1100, 66 Slater Street
Ottawa, Ontario
K1P 5H1

Dear Ms. Norheim,

Imperial's Sarnia Products Pipeline (SPPL) is important infrastructure that provides fuels used by households and businesses across the Greater Toronto and Hamilton Area. This includes a significant portion of jet fuel at Toronto Pearson International Airport, as well as gasoline and diesel fuel that keeps people, goods and services moving throughout the region.

Operating safely in the region for many years, Imperial is planning to replace approximately 63-kilometres of the line with new pipe. This section runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area.

The Waterdown to Finch Project is proactively replacing a segment of pipeline to deliver continued safety and reliability.The existing pipeline will continue to operate until the project is complete.

Environmental and cultural assessments will start in the spring of 2018. Subject to provincial regulatory review and receipt of all permits, Imperial anticipates construction to begin in 2019.

Most replacement work will take place in close vicinity to the existing pipeline. Imperial representatives will also be communicating with landowners where proposed activities may be taking place in the coming weeks. Over the duration of the project, we will work collaboratively and communicate proactively to minimize construction impacts.

Please accept this letter as a formal notification of Imperial's Waterdown to Finch Project. Imperial would like to schedule a meeting to discuss the Waterdown to Finch Project, share information and answer questions. If you would like to learn more about the Waterdown to Finch Project, please contact us at questions@imperialon.ca or leave a message at 416-586-1915.

In addition to the project brochure and meeting offer, you can also visit our project website at imperialoil.ca/waterdowntofinch for an overview of the proposed replacement work, including project facts, work schedule, construction practices and community engagement efforts.

We look forward to connecting.

Sincerely,

Christopher Plain
Indigenous Relations Lead – Ontario Region
Imperial Oil Limited

Jim Chan

From: Linda Norheim <LindaN@metisnation.org>
Sent: Thursday, July 19, 2018 1:33 PM
To: Jim Chan
Subject: RE: Waterdown to Finch Project

Hello Jim,

Thanks for your email and the information about the Waterdown to Finch project. I will send this along to the consultation committee(s) with a potential interest in this project. If they indicate an interest in receiving more information or in meeting with you, I will contact you to arrange a meeting.

Nice to meet you via email.

All the best
Linda

Linda Norheim
Manager
Lands, Resources and Consultations
Métis Nation of Ontario
311-75 Sherbourne St.
Toronto, ON M5A 2P9
Ph: 416-977-9881 ext.102
TF: 1-888-466-6684
E: LindaN@metisnation.org

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From: Jim Chan [mailto:Jim.Chan@erm.com]
Sent: July-11-18 4:02 PM
To: Linda Norheim; Plain, Christopher /C
Subject: Waterdown to Finch Project

Hello Linda,

I'm understanding that you are currently on vacation and not returning until July 17th, 2018. Perhaps at that time, we could kindly connect in-person at the MNO office, at your convenience.

A quick introduction, on a personal note, I've been to the office before and I know James Wager and Mark Knell (was previously with MNO Lands and Consultation).

We would like to provide you with information on the Imperial's pipeline replacement from Waterdown to Finch Project, which is located in southern Ontario.

Imperial's existing Sarnia Products Pipeline is an important piece of infrastructure that provides fuels 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 our region.

Imperial is planning to replace approximately 63 kilometre section of the line with new pipe. This section runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area.

Perhaps, when we are back, we could reconnect. Attached you will find information on this project.

Regards,

Jim Chan
Senior Consultant
ERM

Richmond-Adelaide Centre
120 Adelaide Street West
20th floor | Suite 2010
Toronto | ON | Canada | M5H 1T1
T +1 416 646 3608 (office) | **M** +1 647 919 9474 (mobile)
E jim.chan@erm.com | **W** www.erm.com

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Jim Chan

From: Jim Chan
Sent: Wednesday, July 11, 2018 4:02 PM
To: lindan@metisnation.org; Plain, Christopher /C
Subject: Waterdown to Finch Project
Attachments: A.1 Canada - SPPL - Waterdown to Finch Brochure.pdf

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Jim Chan
Senior Consultant
ERM

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Esso Mobil

Imperial's Sarnia Products Pipeline

Waterdown to Finch Project



Continued safety and reliability: pipeline replacement from Waterdown to Finch

Imperial's Sarnia Products Pipeline is important infrastructure that provides fuels 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 our region.

Operating safely in the region for many years, Imperial is planning to replace approximately 63 kilometre section of the line with new pipe. This section runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area.

Project highlights

Working within the existing pipeline corridor: Most replacement work will take place in close vicinity to the pipeline.

Completing the Waterdown to Finch Project: Environmental and cultural assessments will start in the spring of 2018. Subject to provincial regulatory reviews and receiving all permits, Imperial expects to start construction in 2019. The existing pipeline will continue to operate reliably until the Waterdown to Finch Project is complete.

Following a thorough regulatory process: Imperial will seek approval for a Leave to Construct from the Ontario Energy Board. This includes a thorough assessment of the project's environmental effects and engagement with landowners, communities and Indigenous groups.

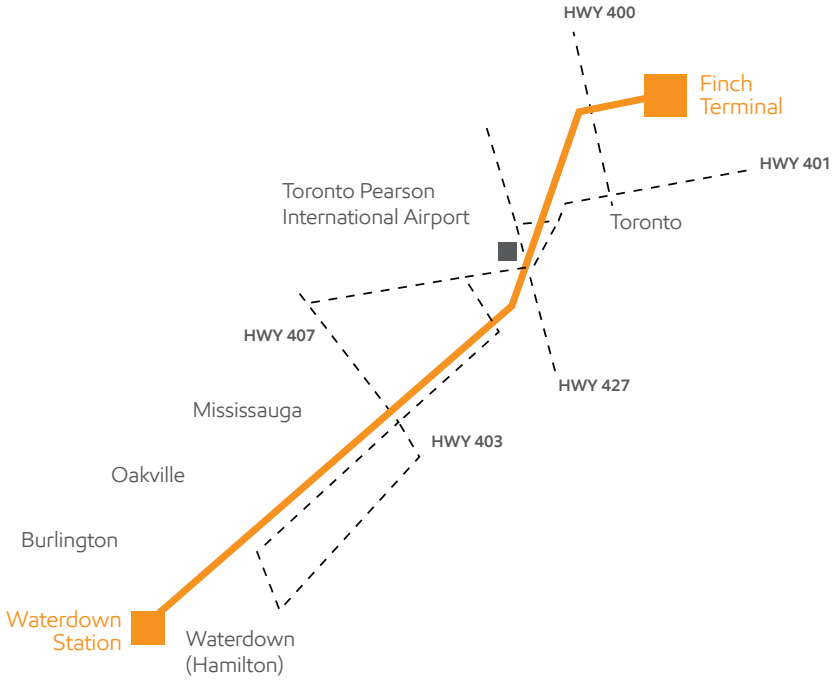
Informing community members: Imperial is committed to meaningful community, government and Indigenous engagement throughout the duration of the project.

Protecting our local environment: Imperial works to ensure the highest standards of environmental safety are observed every day. During the replacement process, Imperial will continue to work with government and regulators to protect our local environment.

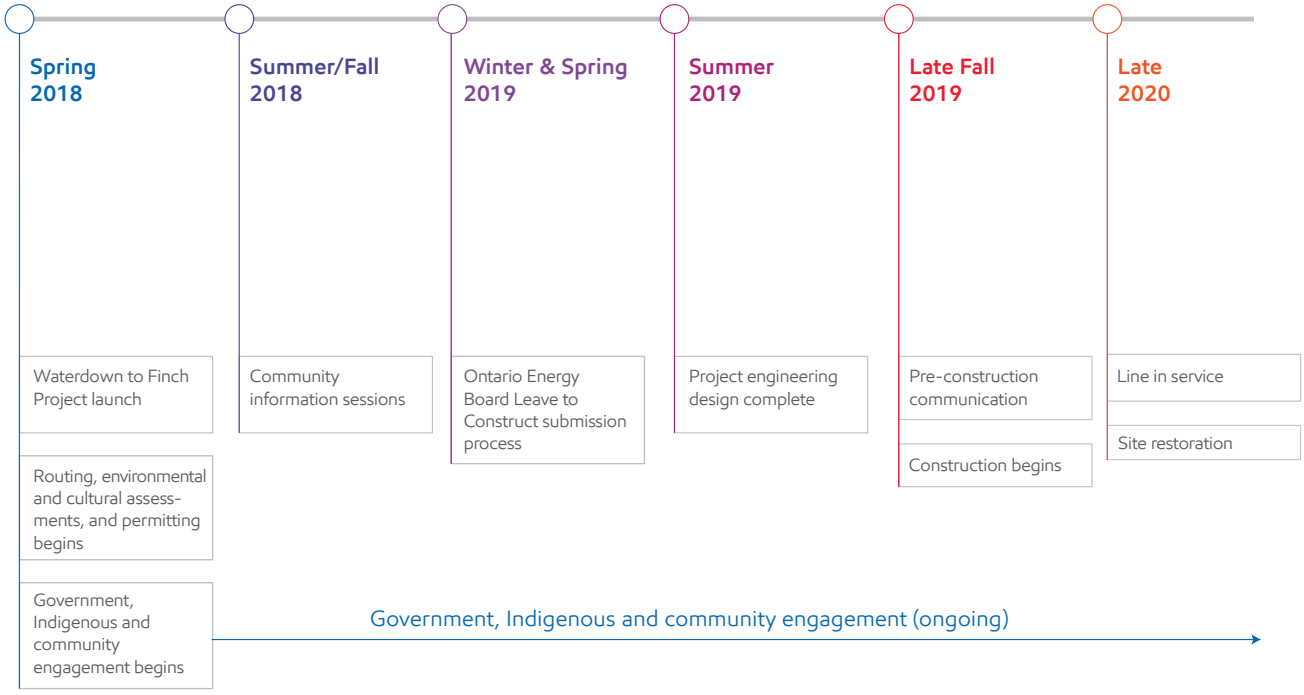
Keeping local traffic moving: Imperial will work closely with municipalities and residents so the impacts on traffic are as limited as possible.

Creating jobs here in Ontario: Imperial employs approximately 1,200 employees and up to 3,500 contractors per day in Ontario. Imperial is looking to work with local contractors and business services, including from Indigenous groups, throughout the life of the project.

Waterdown to Finch Project location



Work timeline*



* Timeline is subject to regulatory and permitting approvals

Land, regulatory and permitting approvals

Imperial will respect all landowners' property and will seek to minimize disruptions. Imperial also recognizes the importance of collaboration with local Indigenous groups when conducting activities on their traditional territories.

Before work begins, Imperial will engage with landowners regarding access to our easements on their property. Concurrently, we will engage with Indigenous groups to understand interests and opportunities to further collaborate in the region.

In addition to landowner access and Indigenous collaborations, Imperial will require regulatory approval, permits or project approvals from the following entities listed in alphabetical order:

- **Federal**
  - Environment and Climate Change Canada
  - Fisheries and Oceans Canada
  - Transport Canada
- **Provincial**
  - Infrastructure Ontario
  - Ontario Energy Board
  - Ontario Ministry of Environment and Climate Change
  - Ontario Ministry of Indigenous Relations and Reconciliation
  - Ontario Ministry of Natural Resources and Forestry
  - Ontario Ministry of Tourism, Culture and Sport
- **Regional**
  - Conservation Halton
  - Credit Valley Conservation Authority
  - Hamilton Conservation Authority
  - Niagara Escarpment Commission
  - Toronto and Region Conservation Authority
- **Municipalities (construction permitting)**
  - City of Burlington
  - City of Hamilton
  - City of Mississauga
  - City of Toronto
  - Town of Milton
  - Town of Oakville



Minimizing construction impacts

Imperial is working carefully with the regulator and different levels of government to plan the Waterdown to Finch Project so that construction impacts are as limited as possible.

Routing, environmental assessments and permitting

- Engineers and environmental surveyors work together to identify a pipeline route that minimizes impact to the environment and surrounding community.
- Engineering, Indigenous technicians and environmental experts work to understand the soil, below ground conditions, vegetation, species, archaeologically sensitive sites, water crossings and environmentally sensitive areas.
- These reports will be reviewed and approved by permitting and regulatory authorities before construction begins.

Preparing for construction

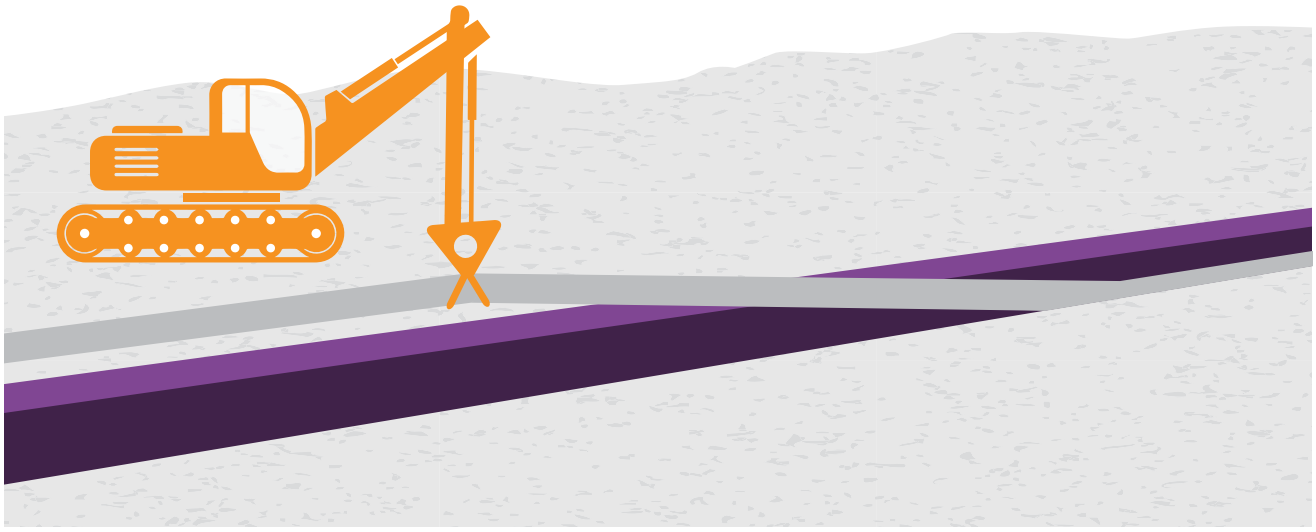
- After the engineering design plan is confirmed, multiple teams along the pipeline will mobilize for construction.
- The pipeline route will be cleared and temporary workspaces, including safety barricades, will be installed.

Construction methods

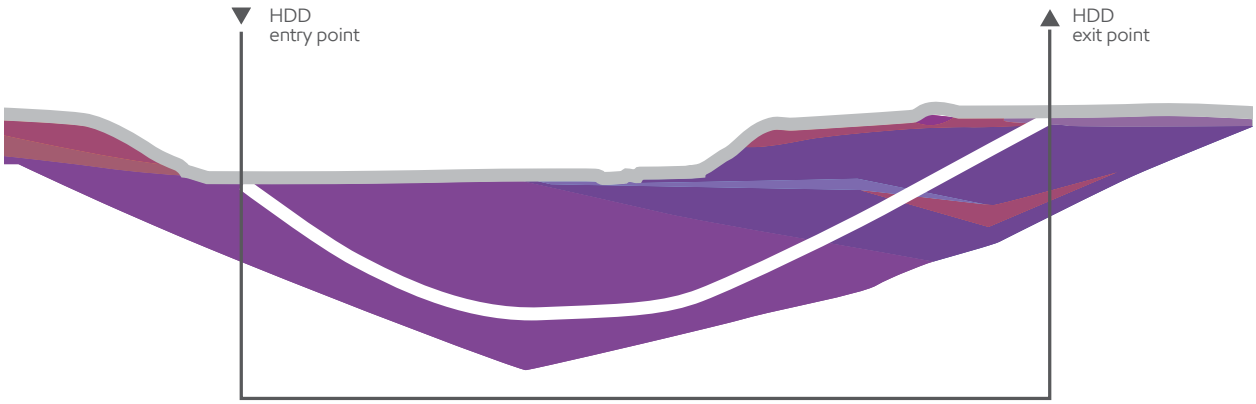
1. Open cut construction
2. Trenchless technology

Based on the engineering and environmental surveys, Imperial will perform one of two construction techniques:

1. Open cut construction



2. Trenchless technology



1. Open cut construction

Open cut construction is the fastest method for pipeline installation.

- Lay and bend the pipe to match contours of the land.
- Weld, test and inspect the pipe.
- Lower pipe into the trench and cover it for protection.

2. Trenchless technology

A horizontal directional drill (HDD) is a method of installing underground pipe using a drilling rig at the surface level. It is best used at sensitive areas, or in dense residential or commercial areas.

- Drill a hole along a designed directional path.
- Enlarge the pilot hole to a diameter suitable for installation of the pipeline.
- Pull the pipeline back into the enlarged hole.

Commissioning/activating the new line

- The new pipeline will ultimately be connected and tied into Imperial's Waterdown Station and Finch Terminal.
- The pipeline's integrity is inspected by a hydrostatic pressure test. Once the pipe is cleaned and dried, it can be slowly filled with diesel, gasoline or jet fuel.

Deactivation of current line

- 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 ongoing monitoring, line identification and crossing management of the deactivated line.

EXHIBIT H
Record of Consultation - Supporting Documents

Filed: 2019-02-22
EB-2019-0007
Tab 2, Schedule 6
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Our commitment to community engagement and the environment

We appreciate the patience of our neighbours, Indigenous groups and community members as we work to enhance the long-term safety and reliability of our existing operations.

Community engagement

In order to minimize the impact of disruption, we look to local residents to help inform solutions.

During the project period, community members will have several ways to receive information and ask questions:

- imperialoil.ca/waterdowntofinch
- Email: questions@imperialon.ca
- Telephone: 416.586.1915
- Community information sessions
- Construction notices delivered a minimum of two weeks before activity begins
- Ongoing information sharing

Protecting the local environment

- Every day, our employees work hard to safely supply fuel to keep cars, trucks and planes in our province moving.
- Our Sarnia and Nanticoke refineries play a critical role in meeting Ontario's energy needs. Since 1990, refinery sector greenhouse gas emissions in Ontario have been reduced by 32 per cent.
- In the last five years, we have spent approximately $1.1 billion at Nanticoke and Sarnia to improve the reliability and safety of our operations.
- Sarnia and Nanticoke both achieved a number of best-ever safety and environmental performance in 2016 and 2017.
- We remain committed to operating our facilities in an environmentally responsible manner and in compliance with provincial regulations.



EXHIBIT H
Record of Consultation - Supporting Documents

Filed: 2019-02-22
EB-2019-0007
Tab 2, Schedule 6
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Our proactive protection and preventative maintenance program

We attribute our record of safe and reliable operations to our preventative maintenance and proactive pipeline inspection programs.

We work closely with independent pipeline regulators and government permitting authorities to ensure our facilities comply with all applicable laws and regulations.

Focused on safety

- Imperial's safety performance is among the best in the Canadian energy industry.
- Imperial conducts routine and frequent aerial and daily ground monitoring of the pipeline path.
- Imperial's emergency response plan prioritizes the protection of people and the environment.
- The emergency response team in Ontario is highly trained, appropriately resourced and ready to respond quickly in the unlikely event of a pipeline emergency.

Monitored 24 hours a day, 365 days a year

- Our pipelines are monitored around the clock.
- Skilled workers in a dedicated control centre with access to monitoring tools can remotely shut down the pipeline and dispatch local workers to inspect the pipeline.

Pipeline protection measures

- Imperial uses protected steel pipe that is coated to safeguard against external corrosion.
- Cathodic protection, a technique that uses low-voltage electric currents to curb corrosion, works with the coating to protect the pipe from external elements.
- The pipe is buried below ground to protect it from damage.
- Valves are strategically placed along the pipeline path to allow sections of the pipeline to be closed off as needed.
- Automated valves can automatically close if they sense an unexpected pressure drop or be remotely controlled by the operations centre.

Using innovative technologies and assessment methods

- Industry-leading inspection tools confirm both internal and external characteristics of the steel to identify and prioritize repairs.
- Imperial will use the inspection findings to determine where a pipeline dig and visual inspection are necessary, which informs maintenance and any additional work, such as replacing a section of the pipeline.

Imperial in Ontario: supporting economic growth

As an integrated products company, at Imperial we explore for, produce, refine and market products essential to society.

We are Canada's largest refiner, producing over 400 kilo barrels per day (kbd).

Founded in Ontario: As Canada's largest refiner of petroleum products, we have more than 130 years of providing Canadians with reliable energy, while supporting our economy and protecting the environment.

Supporting Ontario households: Imperial employs approximately 1,200 employees and up to 3,500 contractors a day in Ontario.

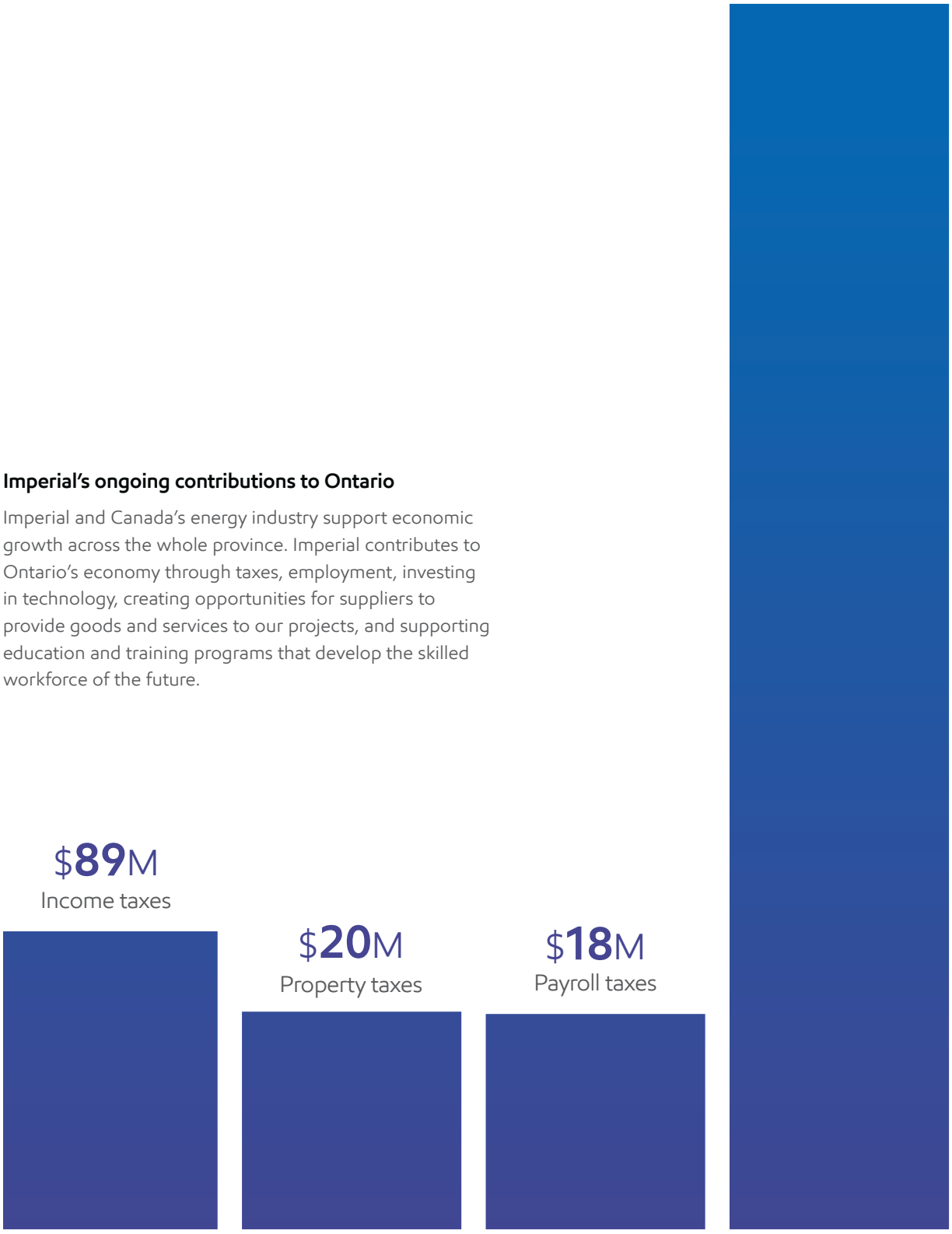
Major capital projects: Imperial continues to invest in Ontario with more than $750 million at our two refineries in Sarnia and Nanticoke. Investments include environmental improvements, energy conservation projects, clean fuel facilities and infrastructure improvements.

Research and development in Ontario: Over the past decade, Imperial has invested more than $300 million in research and development in the province.



Imperial's ongoing contributions to Ontario

Imperial and Canada's energy industry support economic growth across the whole province. Imperial contributes to Ontario's economy through taxes, employment, investing in technology, creating opportunities for suppliers to provide goods and services to our projects, and supporting education and training programs that develop the skilled workforce of the future.



Based on 2016 contributions

Source: Business Council of Canada 2016 Total Tax Contribution Survey.

We want to hear from you
T: 416.586.1915
E: questions@imperialon.ca

imperialoil.ca/waterdowntofinch

Jim Chan

From: Ted Cousins <tedc@metisnation.org>
Sent: Tuesday, September 18, 2018 3:25 PM
To: Jim Chan
Cc: Linda Norheim
Subject: RE: Invitation to meet regarding SPPL Waterdown to Finch Replacement

Hi Jim,

I'm following up on your email offering to meet and provide information about Imperial's Waterdown to Finch pipeline replacement (sent July 11, 2018 to Linda Norheim). Thank you for this invitation. I'm the new consultation assessment coordinator in our Toronto office, and I'll be responsible for coordinating consultation and engagement activities between proponents and our regional consultation committees.

The Waterdown to Finch portion of the SPPL is located within the Métis Nation of Ontario (MNO's) Region # 8. In order to consult, or engage with the MNO, proponents must meet with the regional Métis Consultation Committee, which represents the Métis Community Councils in the areas affected by a proposed project. The MNO's region 8 consultation committee consists of one regional councillor and one representative from each of the three Chartered Métis Community Councils in Region 8 (Credit River, Toronto region, and Oshawa and Durham region Métis Councils). Meeting with the Region 8 RCC ensures that Métis citizens living in the area of the project are properly represented in any discussion with project proponents.

Our Region 8 consultation committee has reviewed the information package sent to us about the Waterdown to Finch replacement project, and is interested in meeting with Imperial to discuss the project. If Imperial is able to meet with our Region 8 consultation committee, please let me know and we can proceed to arrange logistics etc. For your information, there would likely be four members from the Region 8 consultation committee plus one or two MNO support staff. If you have any questions, please don't hesitate to call or email.

Thanks,

Ted

Ted Cousins
Consultation Assessment Coordinator
Lands, Resources and Consultations Branch
Métis Nation of Ontario
311-75 Sherbourne St.
Toronto, ON. M5A 2P9
Ph: 416-977-9881 ext. 112
Toll Free: 1-888-466-6684
F: 416-977-0011
E: TedC@metisnation.org
www.metisnation.org

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Please consider the environment before printing this e-mail.

Jim Chan

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: Tuesday, November 13, 2018 9:13 AM
To: Ted Cousins
Cc: Jim Chan; Liddell, Jennifer H; Malone, Jessie M
Subject: RE: Invitation to meet regarding SPPL Waterdown to Finch Replacement
Attachments: 18_Nov A.1 WFP_Intro.pdf

Good morning Ted,

I can appreciate the challenge of arranging a meeting for a group with diverse schedules. We can be flexible, so if you can offer us a few dates/times that can work on your end, we will do our best to accommodate. We can make an evening meeting work if necessary. In the meantime I will send you a project information package via courier as a starting point for the Consultation Committee.

I have also attached a slide presentation on the project and here is a link to information on our website.

https://www.imperialoil.ca/en-ca/company/operations/other-operations/imperial-sarnia-products-pipeline

Looking forward to hearing from you to discuss further, if the Consultation Committee wishes to meet with the project team. Thanks for your assistance Ted.

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: Monday, November 5, 2018 3:20 PM
To: 'Ted Cousins' <tedc@metisnation.org>; Jim Chan <Jim.Chan@erm.com>; Liddell, Jennifer H <jennifer.h.liddell@esso.ca>
Subject: RE: Invitation to meet regarding SPPL Waterdown to Finch Replacement

Hi Ted-Hope you are well. I am hearing that there may be snow in your area in the very near future.

Have you heard back from your Consultation Committee regarding our potential meeting dates. If there is a common date other than those we have talked about, please let me know and we will do our best to accommodate. Looking forward to hearing from you.

Best regards,

Kelly Williams

Imperial

Imperial's Sarnia Products Pipeline

Waterdown to Finch Project



November 2018

Agenda

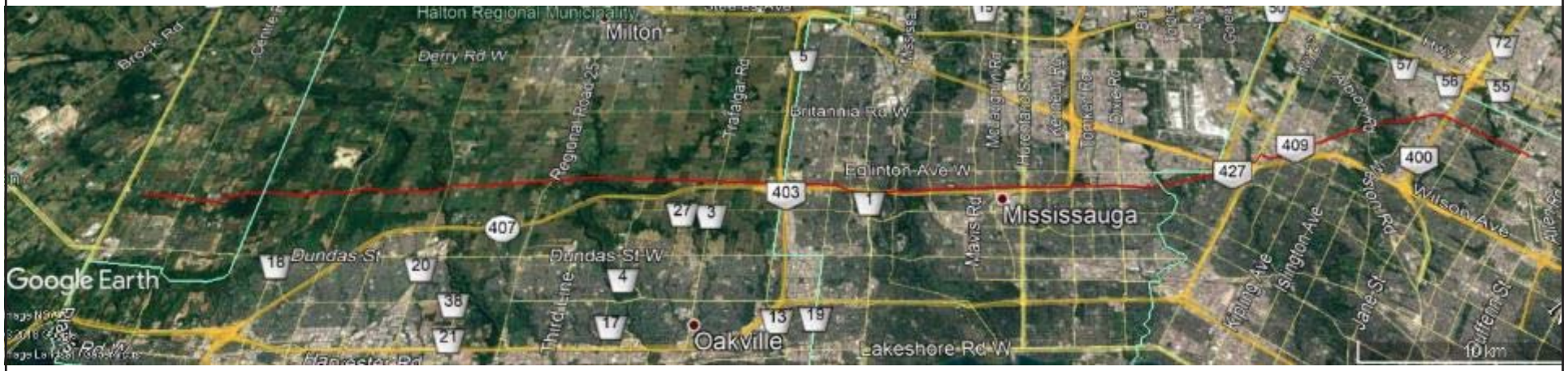
- Welcome/ Open Meeting
- Introductions
- Safety Moment
- Overview of Waterdown to Finch Project



Safety Moment

Imperial's Sarnia Products Pipeline

- Imperial's Sarnia Products Pipeline (SPPL) runs from Imperial's Waterdown pump station in rural Hamilton to the company's terminal storage facility in Toronto's North York area
- SPPL is important infrastructure to the Greater Toronto and Hamilton Area (GTHA)
    - SPPL supplies a significant portion of product used at Toronto Pearson International Airport, and gasoline and diesel that keeps people, goods and services moving
- SPPL has operated safety in the region for many years

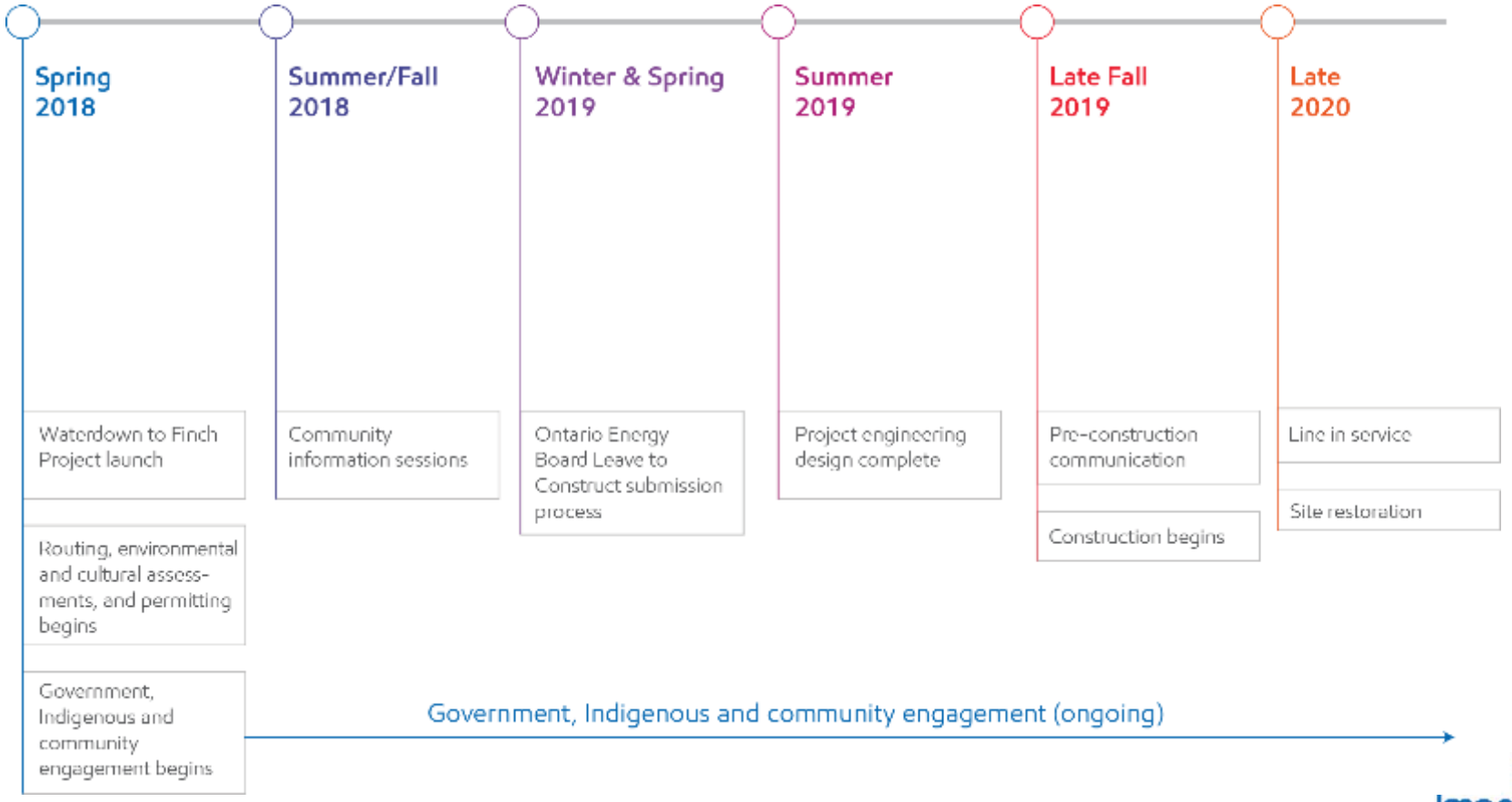


Continued safety and reliability for the GTHA

- Imperial is planning to replace approximately 63 km of the line with new pipe
- The pipeline will continue to operate safely until the replacement segments are prepared for operation
- Imperial will apply for a Leave to Construct from the Ontario Energy Board, which includes an assessment of environmental effects and engagement with landowners, communities and Indigenous groups
    - Imperial will respect landowners' property and will seek to minimize disruptions
    - Imperial recognizes the importance of collaboration with Indigenous groups, municipalities and other community stakeholders



Timeline*



* Subject to regulatory and permitting approvals

Regulatory approvals and permitting

- In addition to landowner access and Indigenous collaboration, Imperial will require regulatory approval, permits or project information sharing from the following entities listed in alphabetical order

Federal
- Environment and Climate Change Canada
- Fisheries and Oceans Canada
- Transport Canada

Provincial
- Infrastructure Ontario
- Ontario Energy Board
- Ontario Ministry of Indigenous Relations and Reconciliation
- Ontario Ministry of Environment and Climate Change
- Ontario Ministry of Natural Resources and Forestry
- Ontario Ministry of Tourism, Culture and Sport

Regional
- Conservation Halton
- Credit Valley Conservation Authority
- Hamilton Conservation Authority
- Niagara Escarpment Commission
- Toronto and Region Conservation Authority

Municipalities (construction permitting)
- City of Burlington
- City of Hamilton
- City of Mississauga
- Town of Milton
- Town of Oakville
- City of Toronto

Environmental Permitting



Federal

- DFO: Self-assessment
- TC: *Navigation Protection Act* screening

Provincial

- OEB: Leave to Construct, Environmental Report
- IO: Public Works Class EA (potential)
- MNRF: Species at Risk permitting (potential)
- MOECC: Water Taking Permit (potential)
- MTCS: Stage 2 Archaeology and Cultural Heritage Evaluation

Regional/Municipal

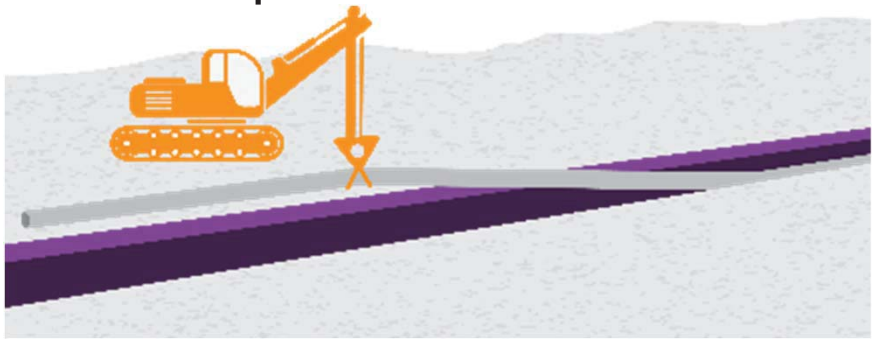
- Conservation Authorities: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses
- NEC: Development Permit
- Municipalities: Tree damage/removal permits

Imperial

Minimizing construction impacts

- Imperial will work with landowners, permitting authorities and different levels of government so construction impacts are as limited as possible
- Engineers and environmental surveyors work together to develop the pipeline route that minimizes impact to the environment and community
- Deactivated pipe will be removed from service, cleaned, filled with nitrogen and left in place to reduce environmental impacts
- Based on engineering and environmental surveys, Imperial will perform one of two construction techniques:

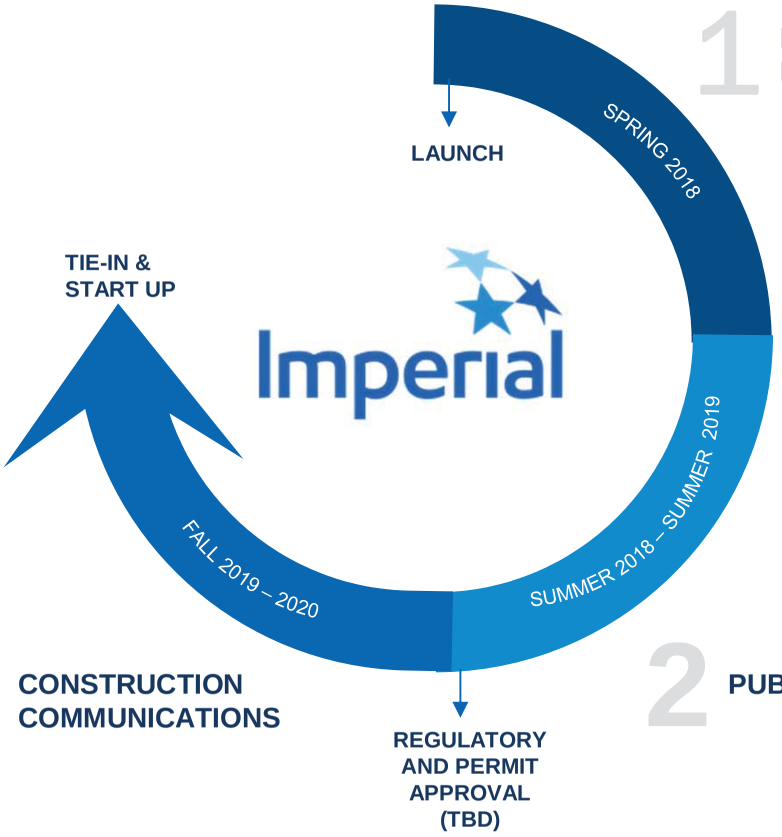
Open cut construction



Trenchless technology



Community engagement



PUBLIC ENGAGEMENT

OWNED

- imperialoil.ca/waterdowntofinch
- Launch notification packages
- Project brochure / fact sheets
- Project updates
- Construction notifications
- Infographics and videos

EARNED

- Coffee chats
- Neighbourhood information session (Summer / fall 2018)
- Stakeholder meetings and updates

PAID

- Local advertising (digital paid)

Imperial

Imperial in Ontario

Founded in Ontario:

- Canada's largest refiner of petroleum products
- 130 years of providing reliable and affordable products

Supporting Ontario households:

- Employs approximately 1,200 employees and up to 3,500 contractors a day

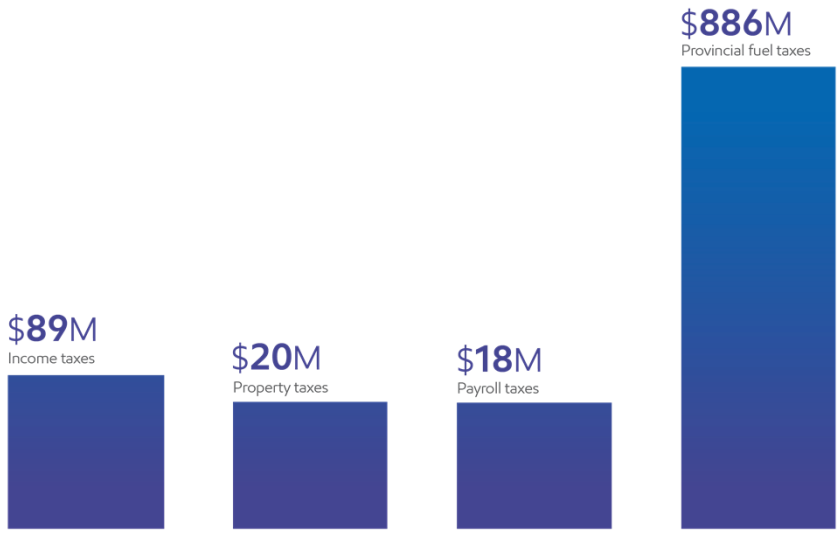
Major capital projects:

- $750 million in capital investments at Sarnia and Nanticoke refineries in the last decade

R&D in Ontario:

- Invested more than $300 million in research and development

Imperial's Contributions in Ontario (2016)*



**Business Council of Canada 2016 Total Tax Contribution Survey*

For more information

W: imperialoil.ca/waterdowntofinch
T: 416.586.1915
E: questions@imperialon.ca

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WATERDOWN TO FINCH PROJECT
INDIGENOUS CONSULTATION LOGS BACKUP DOCUMENTATION
FEBRUARY TO JUNE 2019

Submitted via the OEB hearing process and provided directly to the MENDM in August 2019
(Appendix 11A)

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' <traceyghdi@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

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

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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

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

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

From: 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 suppling 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,

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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



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	Finch Terminal
Imperial Oil Limited	Imperial Oil Limited
505 Quarry Park Blvd	1150 Finch Ave W
Calgary, Alberta T2C 5N1	North York, Ontario M3J 2E4

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

This electronic mail message may contain information which is (a) LEGALLY PRIVILEGED, PROPRIETARY IN NATURE, OR OTHERWISE PROTECTED BY LAW FROM DISCLOSURE, and (b) intended only for the use of the Addressee (s) names herein. If you are not the Addressee(s), or the person responsible for delivering this to the Addressee (s), you are hereby notified that reading, copying, or distributing this message is prohibited. If you have received this electronic

From:	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

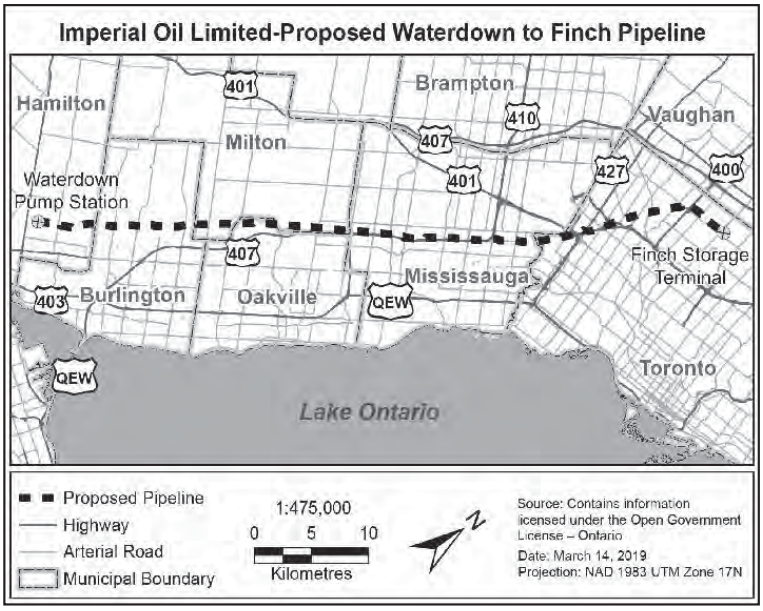
ONTARIO ENERGY BOARD NOTICE

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.



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 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).

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 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,

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 methodlogy 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
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
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 consulant.

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 prematuely 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 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 integal for review our process. Also we're having issues at area wtfn 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 reccomendations.
>
> 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 agreessive 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 prematuely 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> <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/EWGAVIJjJB9Fnxf3P6gHSJ0B0tpWJkzWUHTMK2VLj9gwyA?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
To: Projectmail - Wood E&I Calgary - Consultation
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

Haudenosaunee Confederacy Chiefs Council (HCCC)/Haudenosaunee Development Institute (HDI) • Chief Arnold Hill • Brian Doolittle • Todd Williams • Wayne Hill • Misty Hill	*Waterdown-Finch Project Team* • 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)

- To discuss the archaeology methodology and field protocol for the Stage 2 Program for the Project

Topic	Discussion
Methodology Memo Discussion	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. 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. 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.
Professional Judgement	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. 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.
Other Methods	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

	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. 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.
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 be 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	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. 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.
S&Gs	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. 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.
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	HCCC/HDI outlined issues they feel need to be resolved. o Capacity funding to review reports o Trenching as a method to deal with deeply buried topsoil o Intervals of STP survey o Prefers to sit down with consultants and resolve concerns because HDI wants to do more work with consultants

	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.
Field Protocol	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. 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.
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	*HCCC/HDI to review Stage 1 report and Stage 2 mapping when provided and identify areas to request intensification.*	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-wendat

Bureau du
Nionwentsïo

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 Nionwentsïo Office

255, Place Chef Michel-Laveau, Wendake (Québec) G0A 4V0 Canada
Téléphone : (418) 843-3767 Télécopieur : (418) 842-1108
Sans frais : 1-877-712-3767

From:	Williams, Kelly /C
To:	imperial-isometrix@national.ca
Cc:	Majdalani, Elias; Malone, Jessie M; Murillo, Breanna; Jim Chan
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	Finch Terminal
Imperial Oil Limited	Imperial Oil Limited
505 Quarry Park Blvd	1150 Finch Ave W
Calgary, Alberta T2C 5N1	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

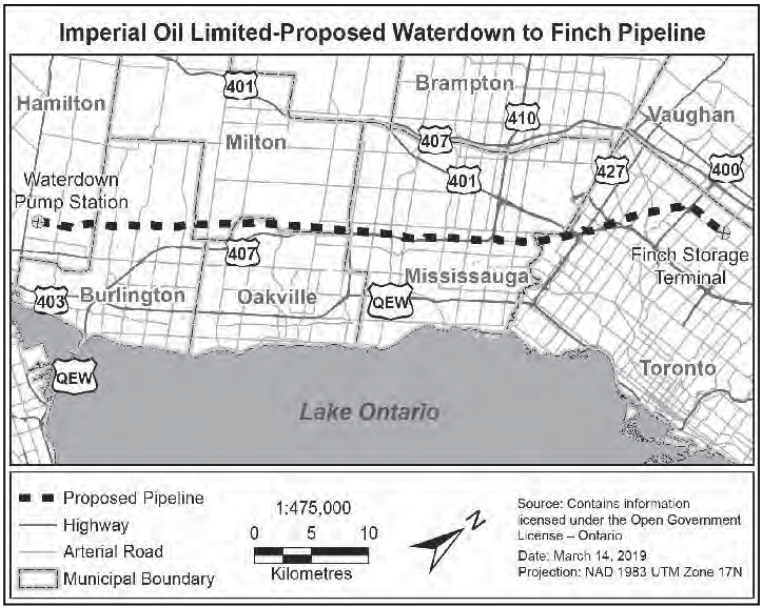
ONTARIO ENERGY BOARD NOTICE

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.



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 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).

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 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,

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 methodlogy 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

Huron-Wendat	*Imperial*
• Maxime Picard, Ontario Project Coordinator • Simon Picard, Legal Counsel • Louis Lesage, Executive Director • Ron Williamson, Archaeology Advisor	• 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)

- To discuss the Parsons Site

Topic	Discussion
Consultation	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. Imperial committed to ongoing project consultation with HWN, with an understanding of the significance of the Parson's site.
Parson's Site Location	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. HWN asked to see Imperial's existing pipeline location in relation to the Parsons site. 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. ***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).***
Old Pipeline	HWN asked why the old pipeline will be left in place and not removed. 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

	monitoring of this segment of deactivated pipeline. Imperial remains responsible for ongoing monitoring, line identification and crossing management of the deactivated line. 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. Imperial has no additional plans to what is described above. 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.
Monitoring	HWN requested a monitor be present during pre-construction activities including: • Stage 2 archaeology; • Placement of matting at Borehole 136 and 137; and • Drilling of Borehole 135, 136 and 137. 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.
Emergency Response	HWN requested to see Imperial's plan in the event of a pipeline leak during operations in the location of the Parsons site. ***Imperial to provide information on emergency response to HWN.***

Follow-ups

Item #	Follow-up	Responsible	Timeline
1	***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).***	Jenna	Complete
2	***Imperial to provide information on emergency response to HWN.***	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 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 : 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

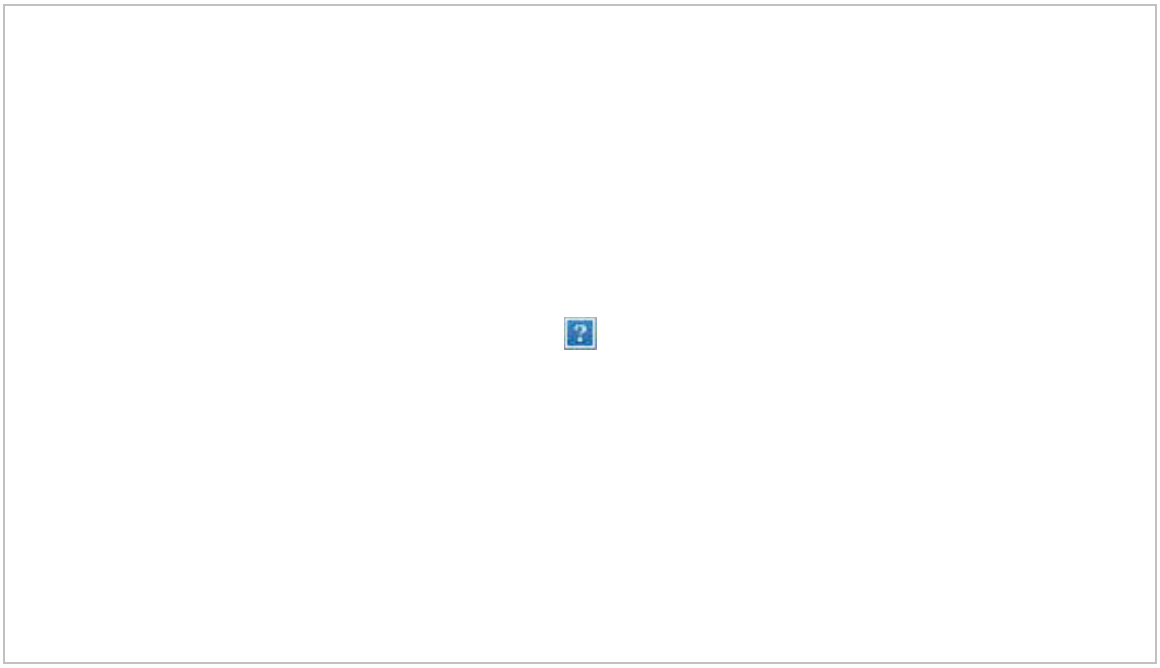
From: Williams, Kelly /C
Sent: Thursday, May 30, 2019 11:38 AM
To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>
Subject: RE: Call

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
To: Projectmail - Wood E&I Calgary - Consultation
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
To: Projectmail - Wood E&I Calgary - Consultation
Cc: 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
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 -

Ontario Energy Board | Commission de l'énergie de l'Ontario

BY E-MAIL

June 27, 2019

Renée Pelletier
Managing Partner
Olthuis, Kleer, 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.21AEBCB0

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Ontario Energy Board | Commission de l'énergie de l'Ontario

BY E-MAIL

June 27, 2019

Renée Pelletier
Managing Partner
Olthuis, Kleer, 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
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
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
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)

MISSISSAUGAS OF THE NEW CREDIT FIRST NATION
DEPARTMENT OF CONSULTATION AND ACCOMMODATION

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.

Department of Consultation and Accommodation
Mississaugas of the New Credit First Nation
4065 Hwy 6 North, Hagersville, Ontario N0A 1H0
Phone: (905) 768-4260
www.mncfn.ca

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

Department of Consultation and Accommodation
Mississaugas of the New Credit First Nation
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Phone: (905) 768-4260
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Imperial Waterdown to Finch Pipeline Replacement Project March 29, 2019 10:00 am MCFN DOCA Office Meeting with MCFN DOCA Summary	
Participants	
MCFN DOCA • Megan Devries, Archaeologist • Fawn Sault, Consultation Manager • Peter Epler, Archaeologist • Joelle Williams, Environmental and Archaeology Assistant	*Imperial* • 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)	
• 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	• Meeting participants introduced themselves and provided background on their roles.

Training credentials for archaeology field crew	• ERM with Past Recovery and ASI provided the credentials and training for the field crew.
	  • 4 Field Directors (2 Past Recovery and 2 ASI Heritage)
	  o have Applied Research Licence
	  o have a degree in anthropology, archaeology or related discipline
	  o are experienced in conducting Stage 1-4 archaeological assessments
	  • 3 Field Assistants (two of which are qualified to be Field Director alternates)
	  o two with Applied Research Licences, one with Professional Licence
	  • 18 Archaeological Services Inc. (ASI Heritage) Field Technicians
	  o all have completed, or are in the process of completing, a degree in anthropology, archaeology or another related discipline
	  o all will complete an internal training process
	  • 14 Past Recovery Field Technicians
	  o all have completed, or are in the process of completing, a degree in anthropology, archaeology or another related discipline
	  o 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	• 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

DRAFT

Stage 2 program	(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.
	• 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:
	  • 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.
	  • ***Imperial to inform MCFN of reasoning for not testing in the utility locates/disturbed areas regions, when situation arises***

Review of reports for Stage 2/3	• 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. ***Imperial and MCFN to discuss appropriate timelines for report reviews*** • 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. ***Imperial to provide information regarding site-specific Stage 3 field work plans to MCFN as early as possible.*** 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. ***Imperial and MCFN to discuss HDD further, including for Parson's Site and Lake Medad***

Logistics/Communication of field concerns to Imperial	• 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:
	  o Green hard hat - if required, ERM will have green hard hats available
	  o Safety boots in good condition (certified CSA green triangle patch)
	  o High visibility vest
	  o Safety glasses
	  o Long sleeve shirts, pants and gloves - FLRs will be sent off the field for non-compliance
	  o Water and sunscreen

DRAFT

	• 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	• ***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

DRAFT

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
To:	imperial-isometrix@national.ca
Cc:	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

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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)
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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 bifacial) found through pedestrian survey by Past Recovery.
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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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    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

Imperial Waterdown to Finch Pipeline Replacement Project
April 17, 2019 10:00am MCFN DOCA Office
Meeting Summary

Participants

MCFN DOCA	*Imperial*
• Mark Laforme, Director • Megan Devries, Archaeologist • Fawn Sault, Consultation Manager • Peter Epler, Archaeologist • Matt McPherson, Counsel • Caron Smith, Environment & Regulatory • Hillary, Administrator	• Kelly Williams, Community Relations Officer • Jessie Malone, Regulatory Advisor

Objective(s)

- To discuss the Field Liaison Representatives Agreement and other Project information

Topic	Discussion
Environmental Report	• 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. • ***Imperial to confirm that recent changes to source water protection do not affect the project.*** • MCFN stated that the project runs through traditional MCFN territory and MCFN is currently seeking rights to waterbodies. • ***Imperial to provide watercourse crossing table developed for Conservation Authority permits to MCFN.***
Training	• 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. • ***MCFN to provide proposal for HDD monitoring training.***
Regulatory Updates	• Imperial expects to provide the Leave to Construct application to MCFN the week of April 22.

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	• 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	• 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	• ***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 Representatives Agreement	• 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	• The pipeline is located within the HONI corridor from KP 18.8 to 62.5.

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Follow-ups

Item #	Follow-up	Responsible	Timeline
1	***Imperial and MCFN to discuss appropriate timelines for report reviews***	Imperial/MCFN	ASAP
2	***Imperial to provide information regarding site-specific Stage 3 field work plans to MCFN as early as possible.***	Kelly/ERM	ASAP
3	***Imperial and MCFN to discuss HDD further, including for Parson's Site and Lake Medad***	Imperial/MCFN	ASAP
4	***Imperial to provide chance find protocol to MCFN***	Kelly/ERM	Fall 2019
5	***Imperial to provide Environmental Study schedule MCFN***	Kelly/Jessie	ASAP
6	***Imperial to confirm that recent changes to source water protection do not affect the project.***	Kelly/Jessie	ASAP
7	***Imperial to provide watercourse crossing table developed for Conservation Authority permits to MCFN.***	Kelly/Jessie	ASAP
8	***MCFN to provide proposal for HDD monitoring training.***	MCFN	ASAP
9	***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.***	Kelly/Jessie	ASAP
10	***Imperial to facilitate further discussion re: Duty to Consult for Credit River Valley Project decision.***	Kelly	ASAP
11	***Imperial to facilitate further discussion re: MCFN's request that Imperial consult MCFN on all development in MCFN traditional territory.***	Kelly	ASAP
12	***Imperial and MCFN will follow-up to resolve Credit River Valley archaeology matting situation being discussed with Wood currently.***	Kelly/Megan	Complete
13	***Imperial and MCFN will follow-up to resolve Integrity Digs Dig 93 archaeology situation re: identification of artifacts.***	Kelly/Megan	Complete

DRAFT

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	Finch Terminal
Imperial Oil Limited	Imperial Oil Limited
505 Quarry Park Blvd	1150 Finch Ave W
Calgary, Alberta T2C 5N1	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

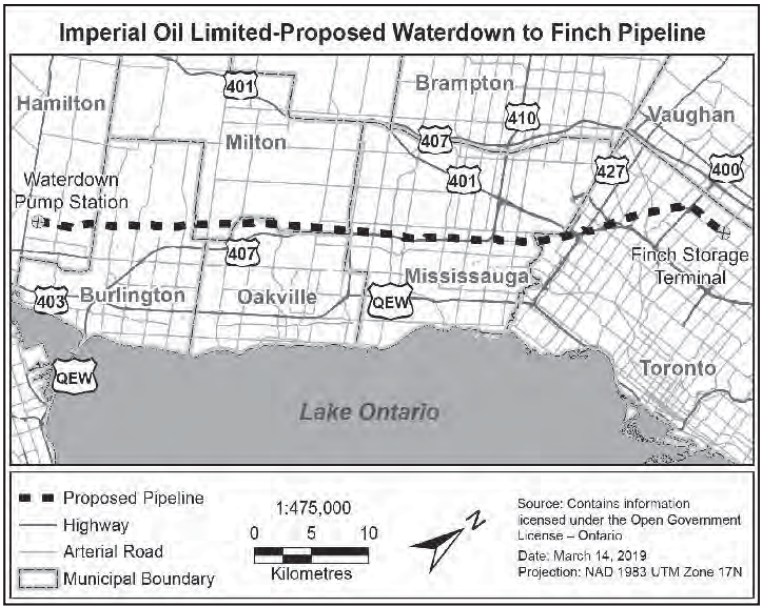
ONTARIO ENERGY BOARD NOTICE

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.



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 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).

Ontario

Ontario Energy Board | Commission de l'énergie de l'Ontario

From:	Williams, Kelly /C
To:	Projectmail - Wood E&I Calgary - Consultation
Cc:	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 N0A 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 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,

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 methodlogy 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)
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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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Please visit ERM's web site: http://www.erm.com. To find out how ERM manages personal data, please review our Privacy Policy

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

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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. ERMs 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)
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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
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)
4065 Highway 6 North, Hagersville, ON N0A 1H0
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McArthur, Cheryl

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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
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.

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
To:	Projectmail - Wood E&I Calgary - Consultation
Cc:	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

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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
To:	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

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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

Consulltation 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

Consulltation 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	Finch Terminal
Imperial Oil Limited	Imperial Oil Limited
505 Quarry Park Blvd	1150 Finch Ave W
Calgary, Alberta T2C 5N1	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 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,

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 methodlogy 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

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: 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	
Métis Nation of Ontario • Ted Cousins, Consultation Assessment Coordinator • Todd Ross, Chair Toronto and York Region Métis Council • Karen Derocher, Consultation Committee • Marcel, Métis Nation of Ontario member	*Imperial* • Kelly Williams, Community Relations Officer • Corinne Thiessen, Stakeholder Relations • Jessie Malone, Environment and Regulatory Advisor (phone)
Objective(s)	
• To inform the Métis Nation of Ontario Consultation Committee about the Waterdown-Finch Project	
Topic	**Discussion**
Project Presentation	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: 1. How does the unrefined product reach the Sarnia refinery? ***Post-meeting update:*** *Product reaches the Sarnia refinery by pipeline, barge and rail.* 2. Who operates the line from Sarnia to Waterdown? *Enbridge.* 3. How much will the new line deviate from the current path? *The plan is to stay within the current right of way and optimize the path to improve the safety and operation of the line.* *4.* What will be done to the existing line? *The existing line will be left in place, filled with nitrogen gas and continuously monitored.* 5. What is the in situ strategy for the existing line? ***Post-meeting update:*** *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*

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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

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	mitigation measures, including monitoring of groundwater quality and quantity pre-, during and post-construction. *8.* Is there a plan to add more valves to the line? *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.* *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. *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.* **Further discussion:** *10.* The MNO would like further information on Imperial's position on Carbon Pricing and reducing environmental impact. energy_carbon_summary.pd.pdf ***Post-meeting update:*** *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.***
MNO Presentation	• 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.

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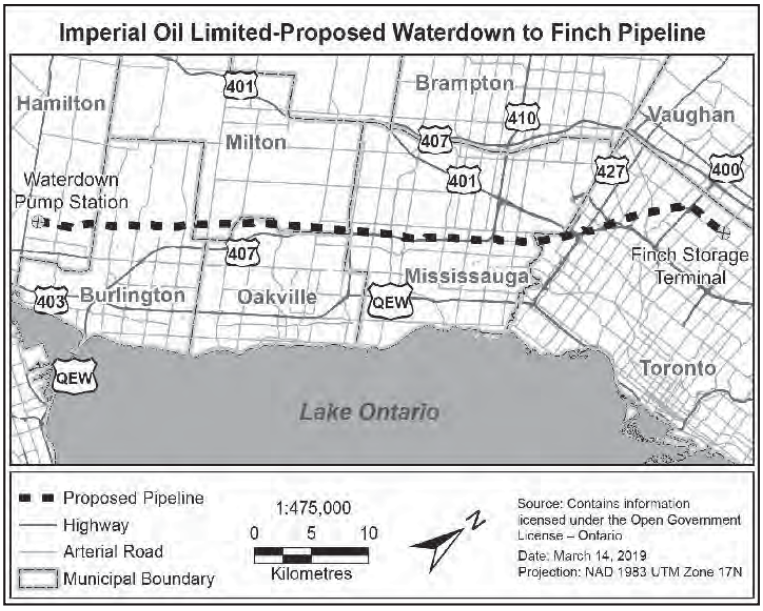
ONTARIO ENERGY BOARD NOTICE

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.



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 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).

Ontario

Ontario Energy Board | Commission de l'énergie de l'Ontario

WATERDOWN TO FINCH PROJECT
INDIGENOUS CONSULTATION LOGS BACKUP DOCUMENTATION
JULY TO NOVEMBER 2019

Provided directly to the MENDM in December 2019
(Consultation Log Updates)

Haudenosaune Confederacy of Chiefs Council (HCCC) /

Haudenosaunee Development Institute (HDI)

Imperial

July 26, 2019

Wayne Hill
Todd Williams
Haudenosaunee Development Institute
tworowarchaeology@gmail.com
Williams.todde@gmail.com

Via email

Dear Wayne and Todd,

Re: Heat-Related Event and Proactive Steps to Address the Situation

This letter is to address a heat-related event that occurred during the Waterdown to Finch Stage 2 archaeology program on July 19, 2019 with a monitor and the recent issue on site regarding temperature and humidity readings and associated work expectations.

Imperial appreciates HDI's concerns, and wants to work with HDI to address them. Imperial takes these types of events very seriously.

Due to these concerns, Imperial has temporarily paused work on the Stage 2 archaeology program. Safety is our first priority. Work will recommence when an appropriate plan is in place to address the situation. Currently, we are working on initial ideas for the plan and will continue to engage HDI in a transparent manner as we develop solutions.

Our understanding of the July 19, 2019 heat event is that a monitor began to display heat-related symptoms. The monitor was moved to a shaded area and provided water. The affected monitor was taken to an emergency facility by another monitor. Concerns were raised about the reaction of Imperial's contractors to the event, and about ensuring steps are in place to prevent a future event. Also, concerns were raised about a respectful work environment.

To provide clarity, Imperial is the owner of the Waterdown to Finch Project. Given the size and the scope of the project, Imperial engages several contractors, who in turn engage several subcontractors, to assist with various parts of the project. Site contractors and subcontractors include UPI, ERM, TGH Safety, ASI, Past Recovery, and others. Given the number of parties involved, it is understandable that the concerns raised related to work supervision and authority, specifically as it relates to ensuring safe work on site in the heat, and Imperial is committed to further clarifying roles and responsibilities on site.

While we work to progress a plan, we highlight below certain principles that govern all site work, the existing safeguards in place, and the steps that may be taken to address the situation, and to ensure that it is not repeated.

1. Respectful Communication and Conduct: Imperial expects that all workers on site, regardless of their role or the circumstances, be courteous, respectful and mindful of their words and actions. *Going forward, if at any time you believe these expectations were not (or are not) being met, please advise Kelly Williams, Imperial Community Relations Officer, so that Imperial can ensure that events are investigated and appropriate action is taken.*

2. Working in Heat: The recent heat wave has created challenges. Imperial continues to work to proactively ensure that work is conducted in a safe, effective and efficient manner. All efforts will be made to mitigate the potential for heat illness in the field. In the event the humidex reaches a point where work cannot continue safely or has reached 42°C, all non-essential work will be

stopped. Other steps are taken (i.e., slower pace of work, more frequent breaks, increased water consumption) at humidex levels well below the stop work cut-off. This will be evaluated onsite in real-time conditions.

3. Support for Monitors: The health, safety and well-being of everyone on the site is a priority regardless of their role in the program. The expectation is that assistance and support will be provided to monitors (and everyone on site) in the event of a health and safety incident – including providing all necessary and available supports to ensure access to prompt and effective medical care.

4. Stop Work Orders: Everyone on site has the right to refuse work they think is unsafe. Furthermore, UPI, the prime contractor for the project and Imperial have the authority to stop work not related to safety. The subcontracting entities (ERM, Past Recovery and ASI) are to consult UPI or Imperial before stopping work for a reason *other than safety*. From a safety standpoint, ERM and TGH have the authority to stop all site work when related to safety.

A baseline expectation is that all contractors take steps to prevent safety incidents, including heat illness incidents. Furthermore, the expectation is that if an incident occurs, contractors and others assist in identifying and assessing next steps and ensure appropriate medical attention has been received, including transportation to an emergency facility, in the event of a health and safety event.

Imperial has reiterated these expectations to our contractors, including UPI, TGH Safety, ERM, Past Recovery and ASI, who have reaffirmed their commitment to ensuring a safe and respectful workplace. We will continue to engage our contractors to ensure these expectations are understood, and followed and the plan we are developing currently will help facilitate this.

Imperial is committed to a work environment that fosters mutual employee respect and positive working relationships. Conduct contrary to this is considered unacceptable in our workplace. It is Imperial's expectation that our contractors understand and respond in a way that is considerate and coordinated.

Imperial remains highly involved in the Waterdown to Finch Stage 2 archaeology field program to ensure project expectations are being met. As noted above, Imperial will continue to engage HDI in a transparent manner as we work to resolve these issues.

At any time, should you, or your monitors, have concerns related to the work environment, please bring these concerns to Kelly Williams, Imperial Community Relations Officer (kelly.williams@esso.ca or 519-328-8681).

Thank you for your time and attention.

Sincerely,

Martin Bates, Engineering Maintenance & Projects Manager
martin.bates@esso.ca

on behalf of

Ryan Klue
Waterdown to Finch Project Manager of Execution
587.476.3095
ryan.a.klue@exxonmobil.com

cc. Jessie Malone, Environment & Regulatory Advisor, jessie.malone@esso.ca
Kelly Williams, Community Relations Officer, kelly.williams@esso.ca

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: July 26, 2019 2:29 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch-Imperial Oil Ltd-Correspondence
Attachments: Imperial WatFin Letter to HDI.pdf

From: Williams, Kelly /C
Sent: Friday, July 26, 2019 4:09 PM
To: 'Todd Williams' <williams.todde@gmail.com>; 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: 'HDI' <hdi2@bellnet.ca>; 'HDI Tracy' <traceyghdi@gmail.com>; 'Brian Doolittle' <ganowa@me.com>; 'Karl Hill' <karl.j.hill@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Bates, Martin <martin.bates@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Subject: Waterdown-Finch-Imperial Oil Ltd-Correspondence

Good afternoon Wayne and Todd,

Hope you are doing well.

I wanted to follow up on the recent events that have strained Imperial's relationship with your office and the monitors you have empowered to represent your Nation's interests during Imperial's field projects. Imperial has provided assurances and worked to reinforce direction to our onsite teams. However, at this time, Imperial recognizes that immediate action has to be taken. Imperial has made the decision to pause the Waterdown to Finch Stage 2 program to ensure an appropriate and effective resolution is found. ERM will notify you when the program will resume.

The attached correspondence from Imperial is the first step in this resolution. The project team understands the importance of providing clarity on how we can address these concerns and are working together to provide a plan for HDI/HCCC to review. It will contain actionable items to facilitate the establishment of trust and confidence in Imperial and its contractors. I also want to take this opportunity to introduce Ryan Klue, who is copied in the correspondence, and will be joining the Waterdown to Finch Project to lead construction activities.

We have a long road before us on this project, and it is my hope that continuous communication and a willingness to listen to each other's point of view will make that road a lot smoother. Thank you for your continued efforts in making this possible.

Please let me know if you have any questions and I will be in touch with you next week.

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

August 1, 2019

Wayne Hill
Todd Williams
Haudenosaunee Development Institute
tworowarchaeology@gmail.com
Williams.todde@gmail.com

Via email

Dear Wayne and Todd,

Re: Waterdown to Finch Stage 2 archaeology program restart plan

This letter is to outline the plan for the Waterdown to Finch Stage 2 archaeology program restart. The plan aims to improve the work environment, clarify roles and support safe practices onsite.

Personnel

Imperial's prime contractor for the Project, UPI, is mobilizing three field staff to provide leadership during program activities. UPI will have a Construction Manager, Environmental Coordinator and Safety Manager on site starting the week of August 5 to take the lead on field work.

Roles and Responsibilities

- UPI Construction Manager will be introduced to the field team as the Single Point of Accountability (overall authority) in the field.
- UPI Environmental Coordinator and Safety Manager will report to the Construction Manager.
- UPI Environmental Coordinator will be the point of contact (POC) for all environmental subcontractors.
- UPI Safety Manager will be the POC for all Safety issues.
- Past Recovery and ASI Field Directors will continue to be the POC for all archaeology-specific items. Imperial prefers that these items be addressed in the field if at all possible.
- Imperial's Community Relations Officer, Kelly Williams, will continue to be the POC for archaeology-specific requests that exceed Ministry of Culture, Tourism and Sport Standards and Guidelines and the Field Directors' professional opinion. In such cases, field work will continue while Imperial and HDI discuss resolution of the issue.
- With respect to workplace issues outside of safety and archaeology, i.e., respectful workplace, if potential issues are not adequately addressed in the field, Kelly Williams will be the initial POC.
- ERM will continue to be responsible for field logistics.
- Monitors will continue to participate in and observe field work; ensure community perspectives and priorities are considered; and provide input regarding the project.
- TGH safety monitors are responsible for issuing work permits on behalf of Imperial Operations. They are responsible for implementing Imperial's safety policies and ensuring that they are being followed.

Training

- Prior to the Tuesday, August 6 restart, Imperial will provide an Indigenous Awareness briefing to the supervisor-level contractors, including the new Construction Manager, Environmental Coordinator and Safety Manager.
- Within the next month, Imperial will deliver a Project-specific Indigenous Awareness training course to all field contractors, including those participating in the environmental field work.
- UPI's Program Construction Manager will be in the field to provide project on-boarding to the new UPI personnel.

Communication
When field work is underway, there will be a 6am Daily Supervisors Meeting at a central location to be provided with the regular logistics communications. Monitors are invited to attend this meeting.

Safe Working in Heat
A process for resolution of heat-related issues has been developed to ensure the correct on-site person is involved. New instruments for measuring temperature, dew point and humidity are being purchased to ensure the accuracy and consistency of the readings. A procedure for resolution of issues has been developed to guide the process to the correct person.

For the summer months, the work day will start at 7am to take advantage of cooler temperatures earlier in the day.

As stated previously, Imperial is committed to a work environment that fosters mutual respect and positive working relationships. Conduct contrary to this is considered unacceptable in our workplace. It is Imperial's expectation that our contractors understand and respond in a way that is considerate and coordinated. Imperial remains highly involved in the Waterdown to Finch Stage 2 archaeology field program to ensure project expectations are being met. As noted above, Imperial will continue to engage your community in a transparent manner as we work to resolve these issues.

Please contact Kelly Williams, Imperial Community Relations Officer (kelly.williams@esso.ca or 519-328-8681) with any questions.

Thank you for your time and attention.

Sincerely,



Ryan Klue
Waterdown to Finch Project Manager of Execution
587.476.3095
ryan.a.klue@exxonmobil.com

cc. Jessie Malone, Environment & Regulatory Advisor, jessie.malone@esso.ca
Kelly Williams, Community Relations Officer, kelly.williams@esso.ca
Martin Bates, Engineering Maintenance & Project Manager, martin.bates@esso.ca

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: August 1, 2019 6:11 PM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Curtis Campbell; Allidina, Zahra
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Re-start Plan
Attachments: 2019.08.01 Imperial WatFin Restart Letter to HDI.pdf

---

From: Williams, Kelly /C
Sent: Thursday, August 1, 2019 8:09 PM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>; 'Todd Williams' <williams.todde@gmail.com>
Cc: 'Brian Doolittle' <ganowa@me.com>; 'HDI' <hdi2@bellnet.ca>; 'HDI Tracy' <traceyghdi@gmail.com>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Bates, Martin <martin.bates@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; 'Karl Hill' <karl.j.hill@gmail.com>; 'Jenna Down' <Jenna.Down@erm.com>
Subject: Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Re-start Plan

Dear Wayne and Todd,

Thank you for the phone call this morning, Wayne. As we discussed, the Stage 2 Archaeology Program for the Waterdown-Finch Project will resume on Tuesday, August 6. Jenna Down will be in touch with you tomorrow regarding the logistics for your monitor. Attached is a letter from Ryan Klue, the construction project manager, that outlines the plan mentioned to HDI in the communication sent last week.

The letter is meant to provide HDI with reference information on a variety of field issues. Please let me know if you have any questions and have a great holiday weekend!

Best regards,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: August 7, 2019 6:26 AM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Jenna Down; Daniel Walker; James Watson
Subject: FW: Waterdown-Finch Project-Parsons Site-Borehole Update-Imperial Oil Ltd
Attachments: B.1 WFP - BH136 and 137 Memo.pdf

From: Williams, Kelly /C
Sent: Wednesday, August 7, 2019 8:26 AM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: 'HDI Tracy' <traceyghdi@gmail.com>; 'Todd Williams' <williams.todde@gmail.com>; 'HDI' <hdi2@bellnet.ca>; 'Brian Doolittle' <ganowa@me.com>; 'Karl Hill' <karl.j.hill@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Nicole Bishop <Nicole.Bishop@erm.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; b.kennett@pastrecovery.com
Subject: Waterdown-Finch Project-Parsons Site-Borehole Update-Imperial Oil Ltd

Good morning Wayne,

Please see the attached memo from Past Recovery regarding the Parsons Site and the assessments that took place there last month. The memo also includes a recommendation to avoid further disturbance to complete the borehole investigations for your review. Imperial would greatly appreciate it if you could forward any questions/comments you may have about the assessments and the recommendation by August 21. In addition, a teleconference meeting can be set up to discuss further if you wish.

Thank you once again for your time and attention to this matter.

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

Memo

To	James Watson (UPI); Jessie Malone (Imperial); Breanna Murillo (Imperial); Kelly Williams (Imperial)
From	Brenda Kennett (Past Recovery)
Cc	Jenna Down (ERM); Daniel Walker (ERM); Curtis Campbell (ERM); Nicole Bishop (ERM); Emma Bright (ERM)
Date	August 6, 2019
Subject	Parsons Site – Borehole Assessment Update

INTRODUCTION

This memo is prepared to address the recovery of archaeological materials in proximity to the Parsons Site while undertaking initial Stage 2 test pitting at the proposed location of borehole (BH) 136 and to present an alternate strategy to complete the geotechnical investigations required in the vicinity of the Parsons Site, particularly BH136, BH137 and BH135.

BH136

On July 3, 2019, the field crew began the Stage 2 assessment of the BH136 location at the Parsons Site. The plan was to excavate four shovel test pits placed at 5m intervals and centred on the stake marking the location for BH136 followed by a 1m x 1m unit directly over the borehole location. Work began with the excavation of the four test pits (Figure 1).

The Stage 2 assessment was carried out by Archaeological Services Inc. (ASI) on behalf of Past Recovery, the licenced archaeologist. The ASI field notes record the following:

- The two test pits south of the borehole showed a sandy loam topsoil (Layer 1) and beige silt (Layer 2) overlying a thin (5cm) layer of buried natural topsoil (Layer 3) and subsoil (Layer 4). No artifacts were recovered from these test pits. These negative test pits are designated on Figure 1 as single white dots located southwest and south east of BH136 pin (red triangle).
- The test pit northwest of the borehole showed a similar profile, but lacked Layer 3. One piece of pottery was recovered from Layer 1 in this test pit. This test pit is designated as ‘WPT2’ (Waypoint 2) on Figure 1.
- The test pit northeast of the borehole showed a sandy loam topsoil overlying a possible feature, and yielded 10 pieces of pottery and one flake. The potential feature consists of orange silt mottled with black silt and charcoal, and spanned the entire floor of the test pit at a depth of 30cm. This test pit is designated as ‘WPT1’ (Waypoint 1) on Figure 1.

WTP1

While 10 pieces identified as pottery were collected in the field, once cleaned and examined in more detail in the lab, five of these were determined to be small pieces of natural sandstone. Thus, the artifact collection from WPT1 consists of five small (< 1cm diameter) body sherds and one small (< 1cm) Onondaga chert flake fragment.

The excavation of WPT1 was stopped at the possible feature to prevent damage. As result, the test pit has not been fully excavated to subsoil. The context of the pottery sherds and lithic flake recovered from WPT1 is less clear owing to the presence of the partial feature and only being partially excavated.

WTP2

The single pottery sherd from WPT2 was found in the upper (modern) topsoil suggesting that it is in an unnatural, or secondary, context. WPT2 encountered subsoil at a depth of 30cm and was excavated 30cm into subsoil, and as such has been completed.

Following the discovery of the artifacts and the possible feature, the findings were discussed with the on-site archaeology monitors, Field Liaison Representative (FLR) and the Huron Wendat Nation (HWN) office. Based on this, it was mutually agreed that work at this location would cease until an additional strategy was developed.

BH136 Location

BH136 is situated on a gentle slope below the main terrace occupied by the Parsons Site village and above the east side of Black Creek. The BH is located approximately 20m west of the site's recorded limit and within 50m of a documented midden and palisade wall (Figure 2).

Figure 2 depicts the limits of two assessments from 1989-90 and 2013. The 1989-90 excavation was completed by ASI and associated with a watermain installation[4] while the 2013 excavation was completed by URS Corp. and associated with the construction of a multi-use pathway[5] (Figure 3). The placement of the BH is approximately 20m south and east of this pathway and approximately 10m south of the southern edge of the watermain trench (Figure 3 and Figure 4).

BH136 Recommendation

Past Recovery, Environmental Resource Management (ERM) and Imperial propose moving BH136 approximately 23m west on to the previously assessed pathway. The pathway was assessed by URS Canada archaeologists in 2011 through construction monitoring. The assessment removed all topsoil with a Link-Belt 210 excavator equipped with a smooth ditching bucket. The area was subsequently shovel shined to confirm no cultural features or archaeological resources were present in subsoil (see Figure 5). The report concluded that the pathway is considered clear of any further archaeological concern.

The proposed new location of Borehole 136, approximately 23m west of the current location, would bore through the cement pathway and extend into an area clear of archaeological concern (Figure 6). This would mitigate concern of impacts to the Parsons Site raised at the previous location with the artifacts and potential feature encountered by the ASI crew on July 3rd.

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[4] The c. 18m wide watermain trench across the Parsons Site was fully excavated by ASI in 1989-90 and Ontario Archaeology, Volume 65/66, 1998 provides a full discussion of the (pre-1998) archaeology at the Parsons Site.

[5] A Stage 2 assessment (shovel test pits at 5m intervals) of the c. 30 kilometres of multi-use pathways was completed by URS in 2010 (URS 2013). In 2011 URS completed a Stage 4 assessment of the pathway across the Parsons Site (above the watermain trench) which included construction monitoring of the c. 3.5m wide pathway excavation (URS 2015).

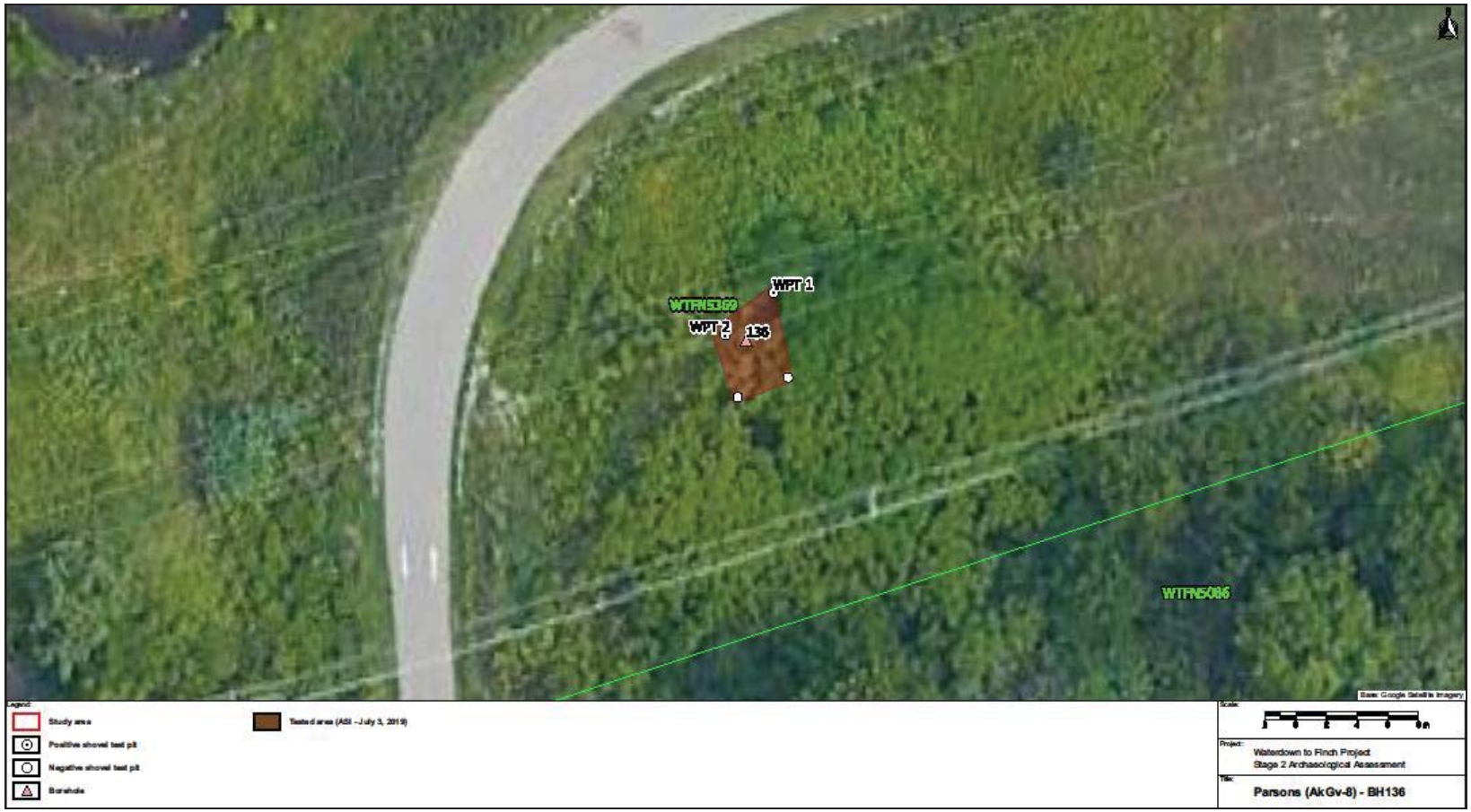

Figure 1: Positive test pits (WPT1 and WPT2) and negative test pits (white dots) excavated at BH136. (Trimble data from ASI fieldwork, July 3, 2019)

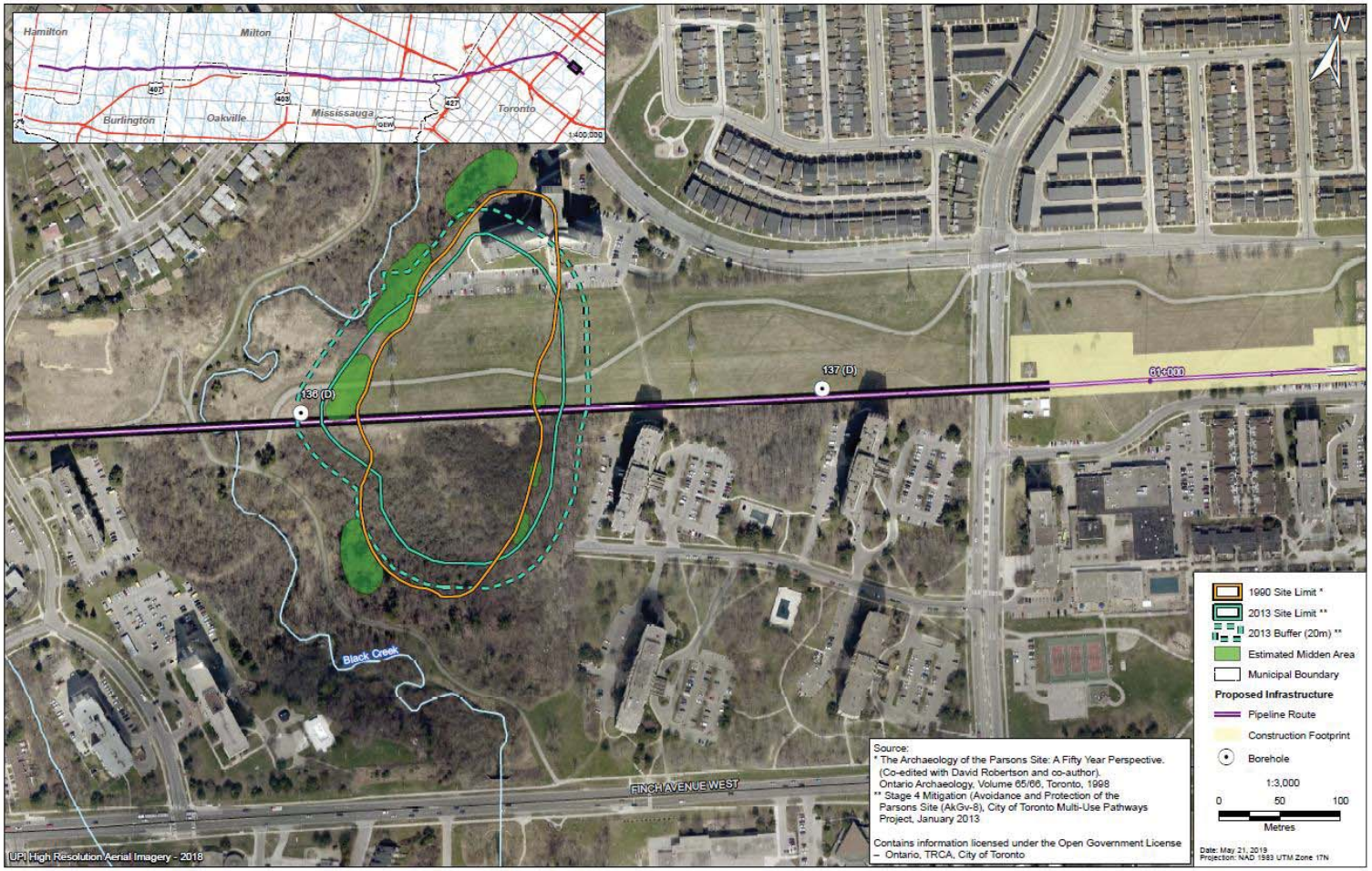

Figure 2: Overlay of all archaeological assessments (1998-2013) and the original locations of boreholes 136 and 137.

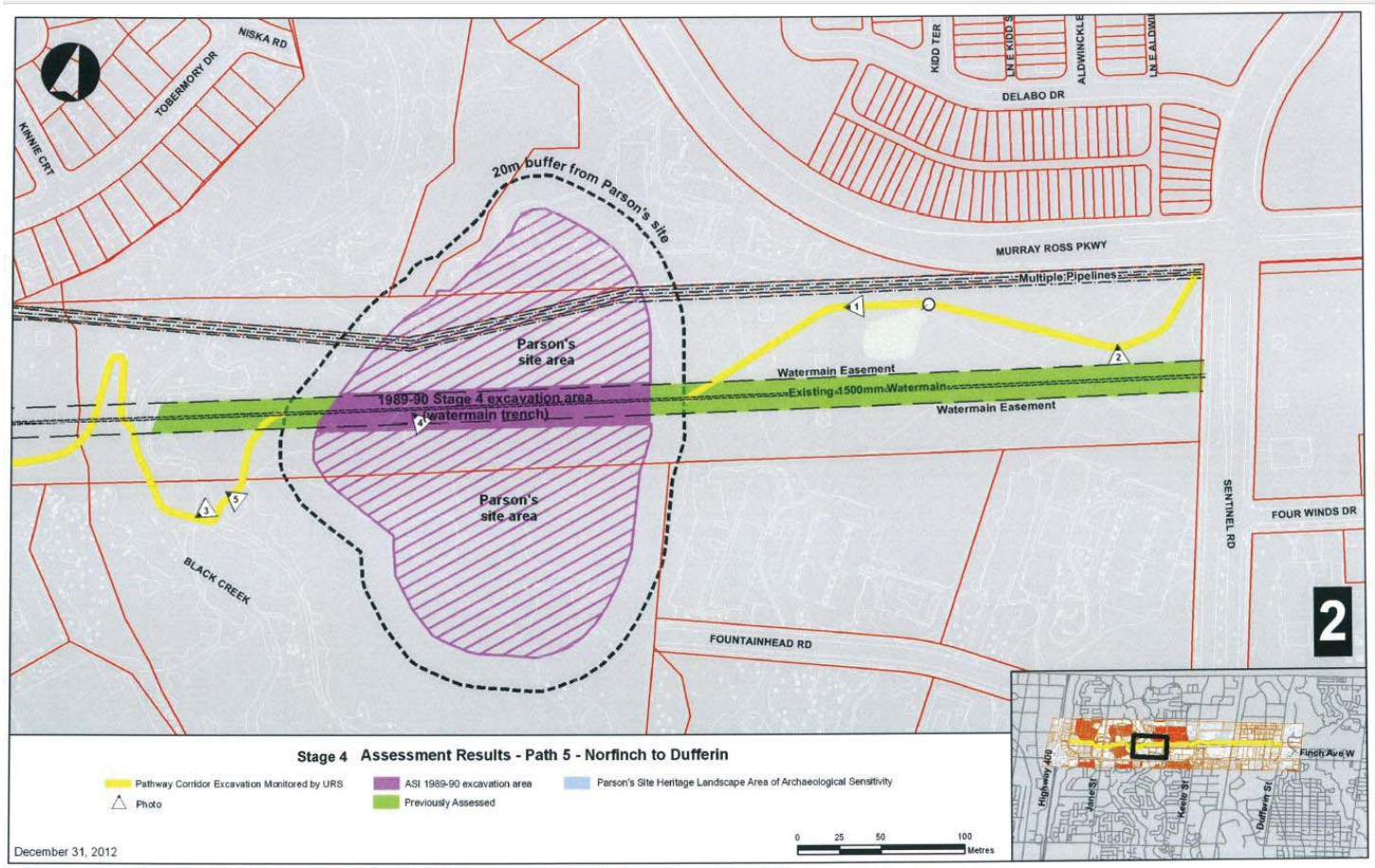

Figure 3: Pathway excavation (yellow) cleared all natural soils and confirmed no features within the pathway. (URS Corporation, *Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8)*, January, 2013).



Figure 4: View of BH136 during Stage 2 testing, looking east. (The apartment building on Fountainhead Road is visible in the background. The watermain trench would be situated along the left hand edge of this photograph as the southern edge of the watermain trench is immediately north of the hydro tower.) (Past Recovery 2019**)**



Figure 5: Photo depicting Gradall removing all topsoil from pathway location during URS Stage 4 Assessment. Assessment confirmed no features were present through monitoring and shovel shinning subsoil (URS Corporation, *Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8)*, April 2015).

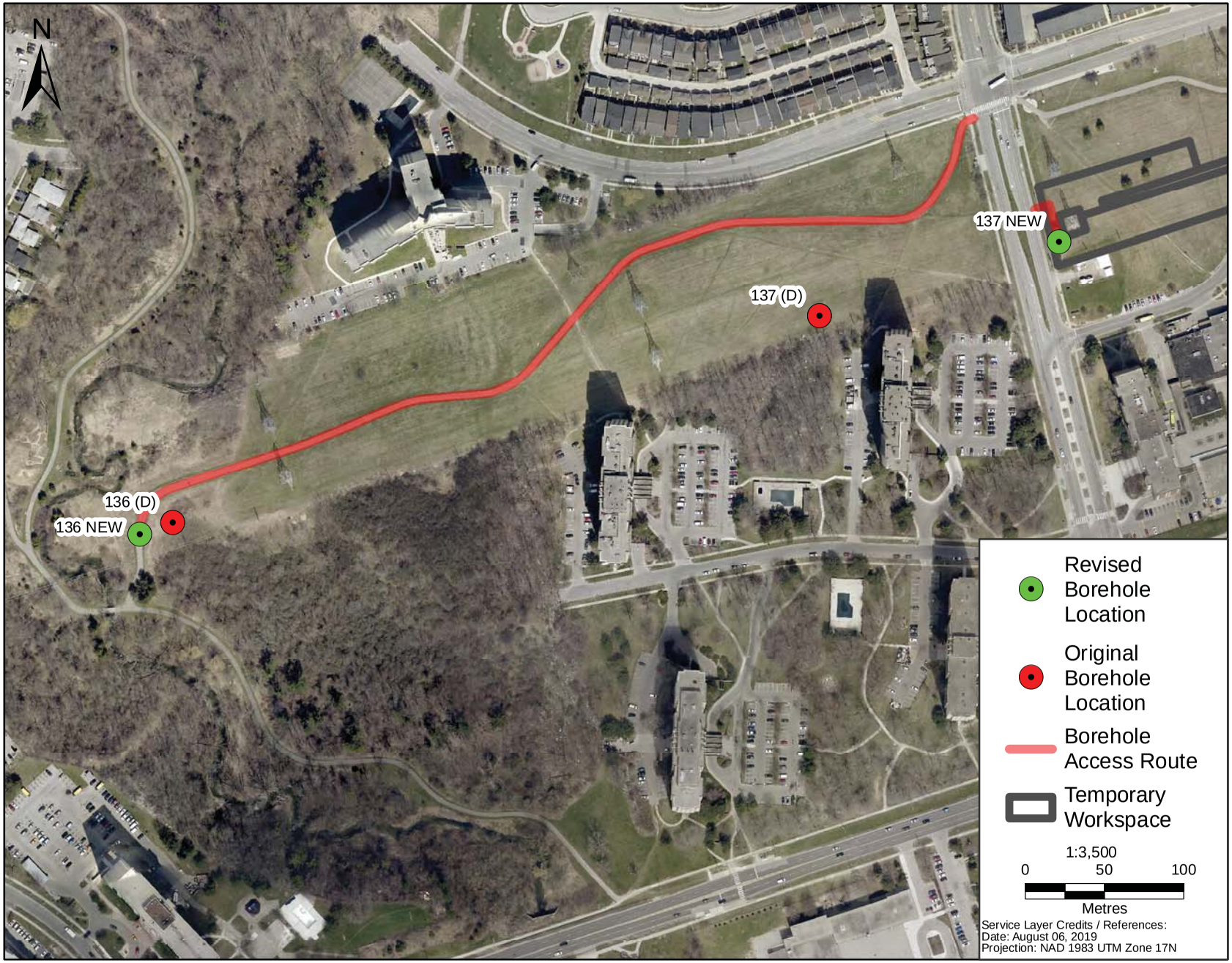

Figure 6 **Revised Borehole Locations 136 and 137**

BH137

To date, no Stage 2 assessment has been undertaken at this BH location. The original location for BH137 was approximately 200m east of the eastern palisade wall as indicated by the 1989-90 ASI watermain excavation (see Figures 2 and 3) and therefore outside the known limits of Parsons site. The BH was also located approximately 10m south of the southern edge of the watermain trench. Although it is located further to the north, the URS report on the Stage 3 and Stage 4 assessments for the pathway indicated considerable disturbance across this parcel (WTFN5369) to the east of the Parsons Site.

Similar to other BHs located within close proximity to the Parsons Site, the Stage 2 plan was to excavate four shovel test pits and a 1m x 1m unit at BH137. Access for the drill to BH137 was to be via the paved pathway from Sentinel Road and then south across the HONI corridor to the BH location, crossing the c. 18 m wide watermain trench. The off-pathway portion of the access route was to be matted.

With the recent findings at BH136, Past Recovery, ERM and Imperial propose moving BH137 to the east side of Sentinel road, approximately 160m from the current location of BH137, which would be closer to the exit point of the HDD (Figure 6). This proposed location would be accessed from Sentinel Road, and then south across the HONI corridor to the BH location. The off-pathway portion of the access route will be matted.

As mentioned above for the current location of BH137, we would propose to proceed with the 4 shovel test pits and the 1 m x 1m unit at this BH location. If cultural material is identified during this initial assessment, work will stop, and we will seek input from Indigenous Communities. Next steps could include Stage 3/4 excavation or moving the BH location.

BH135

BH135 is located within the HONI corridor approximately 340m west of Black Creek (c. 440 m west of the western palisade wall for the Parsons village). BH135 is also located immediately south of the watermain trench and disturbance is present across much of the parcel (WTFN5363).

A 30m buffer around BH135 was test pitted at 5m intervals July 8, 2019. Test pit soil profiles were deemed disturbed and no cultural material was encountered in any test pits.

An additional 1m x 1m test unit was excavated over BH135 on July 10, 2019 to confirm disturbance, the unit soil profile was consistent with test pit soil profiles. No cultural material or features were found in the test unit.

REFERENCES

2019. Past Recovery, Trimble data from ASI fieldwork, July 29 2019

1998. Ontario Archaeology, Volume 65/66

URS Corporation 2013. Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8). Final Report.

2019. Imperial Oil, Google Earth .KMZ file (provided July 29, 2019)

URS Corporation 2015. Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8). Final Report.

McArthur, Cheryl

From: Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Sent: August 20, 2019 3:02 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Pause

From: Wayne Hill [mailto:tworowarchaeology@gmail.com]
Sent: Tuesday, August 20, 2019 9:58 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Majdalani, Elias <elias.majdalani@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: Re: Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Pause

Good morning Kelly,

How are you?

Thank you for the opportunity to provide feedback and hopefully clear up a few things for the betterment of the project. From the HDI's perspective we were just beginning to get traction for developing positive dialogue, finding solutions to resolving our differing points of view in the field. UPI's role is a positive step and yet it is early we've had good conversations on identifying common ground. This doesn't mean there won't be unanticipated issues but the HDI has confidence there's a way forward and getting the right responses can be achieved to enhance our communications and working relationships.

Here are some suggestions for going forward.

* Haudenosaunee inclusiveness on any awareness training on indigenous treaties, lands culture or general information.
* Progress reports pertaining to incomplete or completed logs, avoid confusion and be on the same page with consultant's.
* A clearer more predicable parcel scheduling for preparedness
*Define ERM role, is it logistics only, or do they have say on how archaeology progression

*Ensure parcels are ready for archaeological work. Overgrown weeds, not ploughed correctly, no weathering etc...

The HDI look'S forward to resuming and working with everyone.

Thanks Wayne,

On Fri, Aug 16, 2019 at 6:22 PM Williams, Kelly /C <kelly.williams@esso.ca <mailto:kelly.williams@esso.ca> > wrote:

Dear Wayne,

As we discussed on our phone call today, Imperial acknowledges that the archeology field program for Waterdown to Finch Project continues to be strained. We have made the decision to once again put the program on pause until further notice. We have heard concerns from many fronts, and not just HDI. This includes issues with program execution and coordination by Imperial and its subcontractors. Imperial is taking the time to analyze program communication and

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: September 5, 2019 9:44 AM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Murillo, Breanna K /C
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9
Attachments: Issues Resolution and Communications_090419.pdf; Roles and Responsibilities 090519.pdf; Visio-Archy Field Program 090519.pdf

From: Williams, Kelly /C
Sent: Thursday, September 5, 2019 11:41 AM
To: 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: Todd Williams <williams.todde@gmail.com>; Brian Doolittle <ganowa@me.com>; HDI <hdi2@bellnet.ca>; HDI Tracy <traceyghdi@gmail.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; 'Crepeau, Patrick' <Patrick.Crepeau@hii-upi.com>; Benschop, Mark <Mark.Benschop@hii-upi.com>
Subject: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9

Dear Wayne,

The project team has been working very diligently, examining ways to improve the Waterdown-Finch Project archaeology field program, for the past few weeks. Roles and responsibilities have been reviewed and refined. Concrete ways to improve communication and resolve field issues have been created. We are all very much aware that the true test of these efforts will be defined by successful execution.

For your information and review I have attached the following documents for the Waterdown-Finch Project Archaeology Field Program.

1) Roles and Responsibilities
2) Organization Chart
3) Issues and Communication Protocol

Imperial is requesting that you appoint a Lead Monitor to be the main point of communication for Mark Benschop, the Field Coordinator. Please confirm the name of your Lead Monitor to me as soon as possible. Mark, Patrick Crepeau (Construction Coordinator) and myself will be your main contacts for resolving issues brought forward by your Lead Monitor when they can't be resolved in the field. **We are inviting all monitors to have lunch with the three of us on the first day of the re-start**. **We have reservations for noon at the Tin Cup Sports Grill.**

Tin Cup Sports Grill
1831 Walkers Line
Burlington, ON L7M 0H6

The date for the re-start of the fieldwork is Monday September 9th. I will be out in the field on this day and will be conducting more frequent field visits in the future. An email detailing the logistics will be sent to you by Mark Benschop. We have an important request regarding the first day. The property to be surveyed is private and the owner has asked that we send them the names of the entire crew who will be working on the parcel. ASI is assigned to parcel ID

WTFN0047, which is in Burlington. **If you could kindly send me the names of the monitors you will be deploying to this site on Monday, before the end of today it would be greatly appreciated.**

Imperial and the project team wish to thank you for your comments and feedback on the program. They were very helpful in guiding the review. If you have comments on these draft documents, please send to me as soon as possible. Contact me anytime you wish, and I follow-up with you via phone tomorrow to discuss any questions or comments you may have.

Sincerely,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell

ROC3511b Attachment - Roles & Responsibilities (7 pages)

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1.0 ROLES AND RESPONSIBILITIES

1.1 General

The staff structure supporting the archaeological effort is based on a matrix organization. Each person is responsible to the project organizational hierarchy and to their respective organizations. The roles and responsibilities in this section and in the accompanying organizational charts define the project aspect of the matrix.

1.2 Acronyms

AFD	Archaeology Field Director (PR, ASI, and Other)
AFT	Archaeology Field Technicians (PR, ASI, and Other)
ALM	Archaeology Logistics Manager (ERM)
ASI	Archaeological Services Inc.
ATL	ERM Archaeology Technical Lead (ERM)
CCP	Community Consultation Personnel
CM	Construction Manager (UPI)
CRO	Community Relations Officer
CSID	Contractor Supervisor in Database (TGH or ERM)
ERCMP	Emergency Response and Care Management Plan
ERM	Environmental Resources Management (ERM)
FC	Field Coordinator (UPI)
FI	Field Inspector (ERM)
FL	Field Lead (ERM)
FSO	Field Safety Officer (ERM)
FSP	Field Safety Personnel
LC	Logistics Coordinator (ERM)
LM/FLR	Lead Monitors/Field Liaison Representatives
MTCS	Ministry of Tourism, Culture, and Sports
OA	Office Archaeologist (PR, ASI, and Other)
Other	Potential additional archaeology firm
PR	Past Recovery
PSM	Project Safety Manager (UPI)
ROW	Right-of-Way (CanACRE)
SSC	Sub-Surface Clearance (ERM)
UPI	UniversalPegasus International

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1.3 Logistics Staff

1.3.1 UPI Construction Manager (CM)

Responsible to progress and complete a safe, effective, and efficient archaeology field program to support the project. Single point of accountability (overall authority) in the field. Reports to the UPI Project Manager.

1.3.2 UPI Field Coordinator (FC)

All field crews report to the FC on a daily basis.

Responsible for executing the daily archeology logistics plan that has been approved by UPI CM. Reports to the UPI CM. Interfaces with LM/FLR, CRO, PSM, ALM, ATL, and MTCS License Holder.

1.3.3 ERM Archaeology Logistics Manager (ALM)

Responsible for managing the logistics for the field teams. Responsible for developing the logistics plans, 2-week look-ahead, base plan, reporting progress completion, and any contingencies. Interfaces daily with Stantec and CanACRE on these plans. Reports to the CM. Interfaces with FC, Field Leads, Stantec Survey Crew, CanACRE ROW Coordinator.

1.3.4 ERM Field Lead (FL)

Responsible for overseeing the progress at field level and ensuring field logistics are implemented. Reviews parcel limits with the SSC personnel to ensure the assessment does not encroach outside the defined parcel. Ensuring all field personnel are signed in at the beginning of the day, accounted for during timed breaks/lunch and signed out at the end of the day. Taking daily notes and ensuring information is relayed to the UPI FC and ERM office. Will be CSIDs after going through the Imperial training and approval process. Reports to FC. Interfaces with PSM, Permit Issuer, and ALM.

1.3.5 ERM Field Inspector (FI)

Responsible for completing pre-inspection on parcels prior to archaeology assessment. Inspection duties include identifying: parking capacity and location, vegetation concerns, SSC staking/flagging presence, survey staking, and adequate ploughing methodology. Reports to the ALM. Interfaces with the LC.

1.3.6 ERM Sub-Surface Clearance (SSC) Lead

Responsible for managing the public and private utility locates, overseeing of the SSC field personnel and following up with any sub-surface clearance

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related incidents, near misses or observations. Reports to the ALM. Interfaces with SSC Staff.

1.3.7 ERM Sub-Surface Clearance (SSC) Staff

Responsible for ensuring all public and private locates are completed prior to any intrusive work taking place in the field. This includes completing a visual check of the site to confirm all buried sub surface utilities are painted or staked in the field to identify all sub-surface utilities.

Any questions on site with regards to any signs of a utility will need to be addressed by the SSC Field Lead. They are ultimately accountable for all sub-surface clearances related matters. The SSC Staff also covers the role of FSO. Reports to FL. Interfaces with SSC Lead.

1.3.8 ERM Logistics Coordinator (LC)

Responsible to provide office support to the ALM in managing the logistics for the field teams including 2 week look ahead. Will work with the Field Inspector to ensure site access, parking locations, etc. meet the needs of the field crews. Reports to the ALM. Interfaces with Stantec Survey Crew and CanACRE ROW Coordinator.

1.3.9 CanACRE ROW Coordinator

Responsible for coordinating access for all of the archaeology work. Reports to the CM. Interfaces with ALM, LC.

1.3.10 Stantec Survey Crew

Responsible for staking the areas for archaeological assessment. Reports to the UPI CM. Interfaces with ALM, LC.

1.4 Archaeology Personnel

1.4.1 MTCS License Holder, Professional Archaeologist (Past Recovery)

The license holder for the project with the Ministry of Tourism, Culture, and Sports (MTCS) is responsible for:

Filing the report with the Ministry containing the full details of work done under the license and such other information as the Minister may require.

To ensure the work follows the “Standards and Guidelines for Consultant Archaeologists” issued by the MTCS.

1.4.2 ERM Archaeology Technical Lead (ATL)

Responsible for the archaeological technical aspect of the project including the deliverables of the archaeological field program such as communication of findings to UPI/Imperial, report deadlines and reviews. Have awareness

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of the project footprint and any adjustments from engineering. Reports to the ALM. Interfaces with FC, MTCS License Holder, OA's.

1.4.3 Office Archaeologist (OA) (PR, ASI, and Other)

Responsible for compiling archaeological reports for the MTCS license holder review, obtaining data regularly from the AFD, compiling data from the field to provide accurate progress data for the ERM ALM and ERM LC, and providing front end planning for the respective field crews. Interfaces with ALM and LC.

1.4.4 Archaeology Field Director (AFD) (PR, ASI, and Other)

Responsible for directing all archeological field work including determining archaeological potential and methodology. They are accountable for all archaeological field level decisions.

1.4.5 Archaeology Field Technicians (AFT) (PR, ASI, and Other)

Responsible for performing physical fieldwork, including screening, shoveling, backfilling test pits and walking ploughed fields. Each technician is responsible for examining soils for artifacts and soil profiles. Reports to AFD.

1.5 Field Safety Personnel (FSP)

It is everyone's responsibility to look out for the health and safety of the project team.

1.5.1 UPI Project Safety Manager (PSM)

Responsible for the overall safety program in the field including ensuring the work is progressing safely, developing safety plans as needed, continues to work on ERCMP, addresses any safety concerns in the field. Interfaces on a daily basis with TGH. Reports to the CM. Interfaces with all FSP.

1.5.2 ERM Field Safety Officer (FSO)

Responsible for ensuring IOL and ERM Health and Safety protocols are adhered to by all ERM subcontractors working on this project. The FSO is responsible to communicate any incidents or concerns to UPI PSM as well as UPI personnel to ensure everyone is aware of any health and safety incidents in the field. The FSO also covers the role of SSC Staff. Reports to the FL. Interfaces with FC and all FSP.

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1.5.3 Permit Issuer

Responsible for issuing the daily work permits to the crews. This role is being performed by TGH for Imperial Operations. Reports to Imperial Operations. Interfaces with CM, FC, and all FSP.

1.5.4 Contractor Supervisor in Database (CSID)

Responsible for ensuring Imperial HSE procedures are being implemented and providing safety oversight to the field crews. The CSID role is currently being performed by TGH. This role will transition to the ERM Field Leads after they go through the Imperial training and approval process. Interfaces with FC and all FSP.

1.6 Engagement Communities

1.6.1 Participating Communities

- Haudenosaunee Development Institute (HDI) / Haudenosaunee Confederacy Chiefs Council (HCCC)
- Huron-Wendat Nation (HWN)
- Mississaugas of the Credit First Nation (MCFN)
- Six Nations of the Grand River (SNFN)

1.6.2 Community Consultation Personnel (CCP)

Staff who have been delegated by their leadership to be the main contacts to represent the interests of their nation as Imperial undertakes the procedural aspects of the duty to consult as delegated to Imperial by the Ministry of Energy Northern Development and Mines. Staff also co-ordinate the field monitoring program for their community.

1.6.3 Monitors / Field Liaison Representatives

The activities of this role include:

To participate in and observe field work

To ensure community perspectives and priorities are considered in conducting assessments

Provides field communication to community offices

1.6.4 Lead Monitors / Field Liaison Representatives (LM/FLR)

Lead Monitor/Field Liaison Representative to be appointed by each community to liaise directly with UPI Field Coordinator (UPI FC)

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1.7 Imperial Consultation and Engagement Personnel

1.7.1 Imperial Community Relations Officer (CRO)

Manages consultation and engagement activities related to the Waterdown-Finch project with designated engagement communities by building and maintaining mutually beneficial relationships based on Imperial's principles and guidelines.

Supports the procedural aspects of the duty to consult with the engagement communities by coordinating comments and feedback regarding project information and programs, and ensuring a timely response from Imperial as the project proponent

Supports regulatory and permitting processes by facilitating community/project engagement ensuring that Imperial understands and responds to project impacts on traditional rights

Manages community engagements and acts as a facilitator and advisor for project's multi-disciplinary project team

In Relation to Archaeology Program

Responds to and advises on issues and concerns that cannot be resolved in the field and collaborates with communities and project team on resolutions

Performs regular field visits to build relationships with lead field monitors and to understand field dynamics to facilitate collaboration and issue resolution

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ROC3551c Attachment - Issues Resolution (2 pages)

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1.0 ISSUES RESOLUTION

1.1 Archaeology

Issues and concerns related to archaeology are to be addressed in the field as much as possible between the Archaeology Field Directors (AFDs) and the Lead Monitors/FLRs (LM/FLR) with facilitation by the Field Coordinator (FC).

If an issue or concern cannot be resolved in the field, the LM/FLR are to document the issue/concern and raise this with the Community Consultation Personnel (CCP). In turn they will share this issue/concern with the Imperial Community Relations Officer (CRO). In parallel, the AFD will document the issue/concern and provide this to the FC who will communicate this to the CRO. In such cases, field work will continue within the Ministry of Tourism, Culture, and Sport (MTCS) Standards and Guidelines (S&G) and the Field Directors' professional opinion.

1.2 Field Management Issues

Issues and concerns related to logistics and site management are to be brought forward by the Lead Monitors/FLRs (LM/FLR) to the Field Coordinator (FC). The FC will bring this issue to the Construction Manager (CM) and the Archaeology Logistics Manager (ALM).

If there is an inadequate or no response to the issue/concern, the LM/FLR are to document the issue/concern and raise this with the Community Consultation Personnel (CCP). In turn they will share this issue/concern with the Imperial Community Relations Officer (CRO). In parallel, the FC will document the issue/concern and will communicate this to the CRO.

2.0 RESPECTFUL WORKPLACE

Respectful workplace concerns are to be directed to the FC. The FC will work with the CM to address.

3.0 STOP WORK ORDERS

3.1 Safety Related

Imperial, UPI, ERM, and TGH have the responsibility and authority to stop all site work if dictated by Imperial HSE procedures.

Unsafe behaviors are to be reported immediately to the nearest Field Safety Personnel (FSP) and to be escalated immediately to the UPI Project Safety Manager (PSM) to determine an appropriate path forward. Work may continue if appropriate and in alignment with the site safety policies as determined by the PSM.

Everyone on site is covered by the Emergency Response and Care Management Plan (ERCMP).

3.2 Work Execution Related

UPI and Imperial have the authority to stop all site work if related to work execution.

The subcontracting entities are to consult with the FC before stopping work for a reason other than safety.

4.0 COMMUNICATION PROTOCOL FOR THE ARCHAEOLOGY PROGRAM

This communication protocol applies to the archaeology program and does not extend to other lines of discussion such as agreements.

The lines of communication are to be clearly established for the archaeology program. This protocol aims to reinforce our commitment to a mutually respectful and collaborative relationship, effective and timely communication and conflict management.

4.1 Daily Logistics Communications

Archaeology Logistics Manager (ALM) and Logistics Coordinator (LC) will develop the daily plan and submit to the CM and FC for review/approval. After approval, the FC then forward to Archaeology Teams, LM/FLR, and CCP.

4.2 Communication to/from Community Consultation Personnel

All communications to the Community Consultation Personnel (CCP) are to be performed by the CRO.

Any communication from the Communities not related to the Daily Logistics and received by someone other than the CRO is to be responded to with the statement “Your communication has been received and has been forwarded to the CRO for response.” The CRO is to be copied on the response.

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Imperial Oil
Waterdown to Finch Project
Organizational Chart

Overall Field Team

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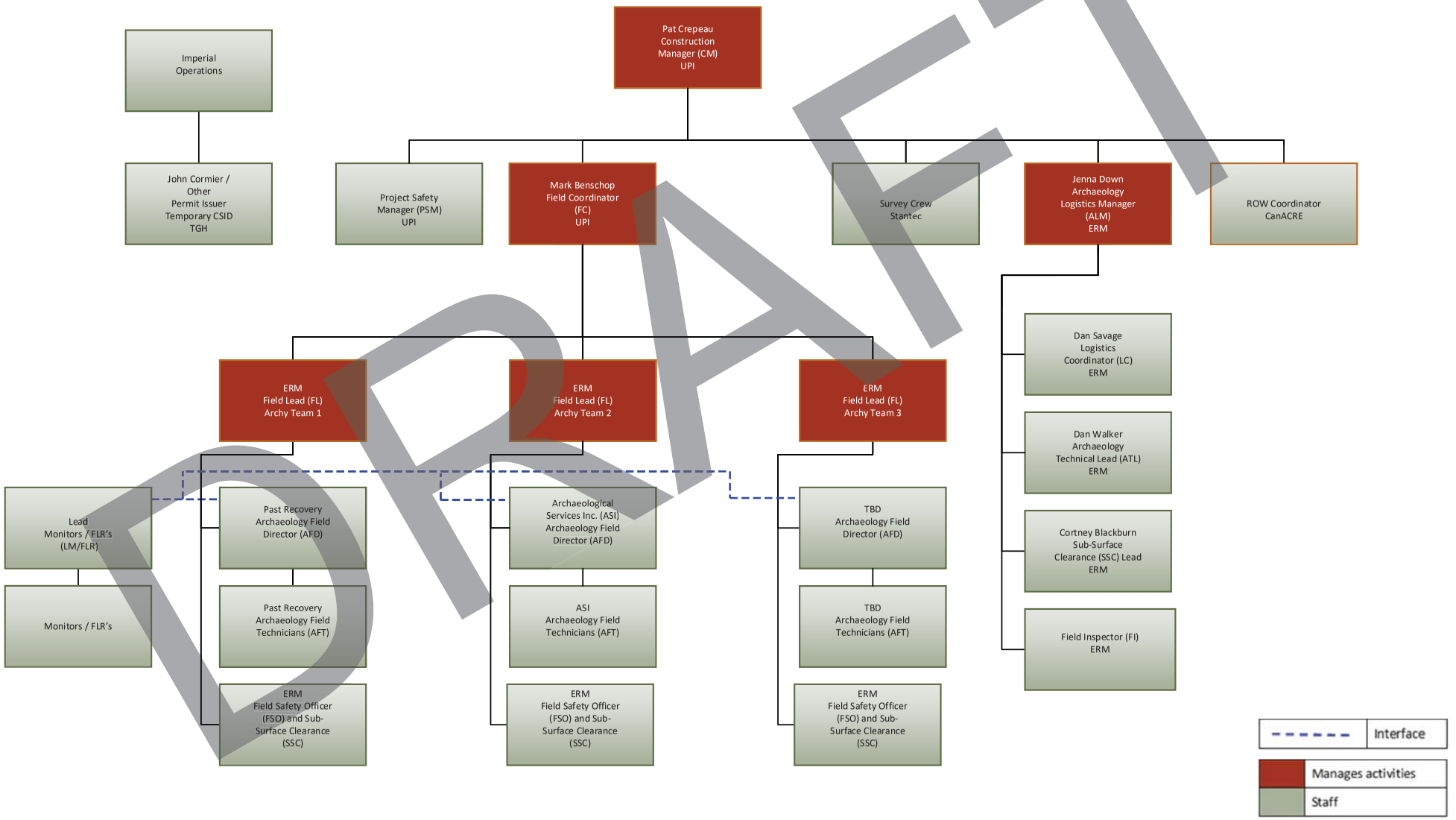
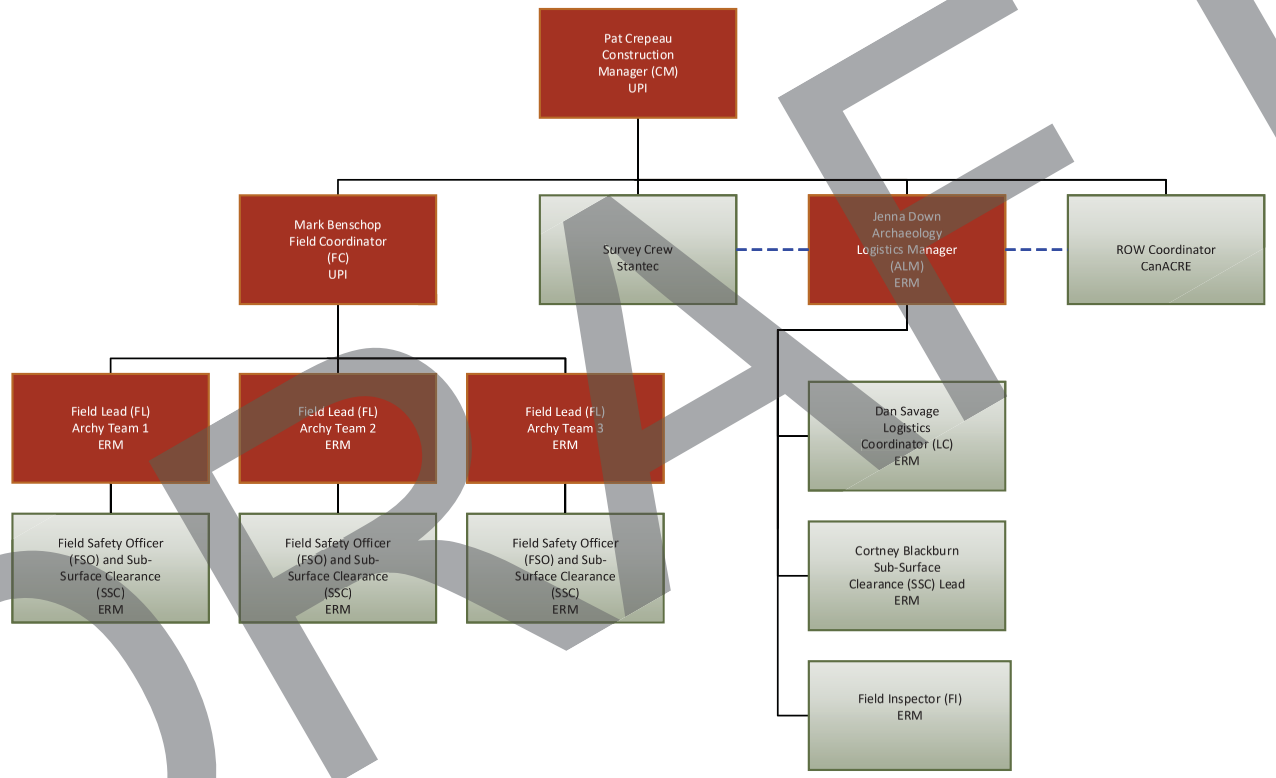


Imperial Oil
Waterdown to Finch Project
Organizational Chart

Field Logistics Team



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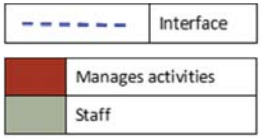
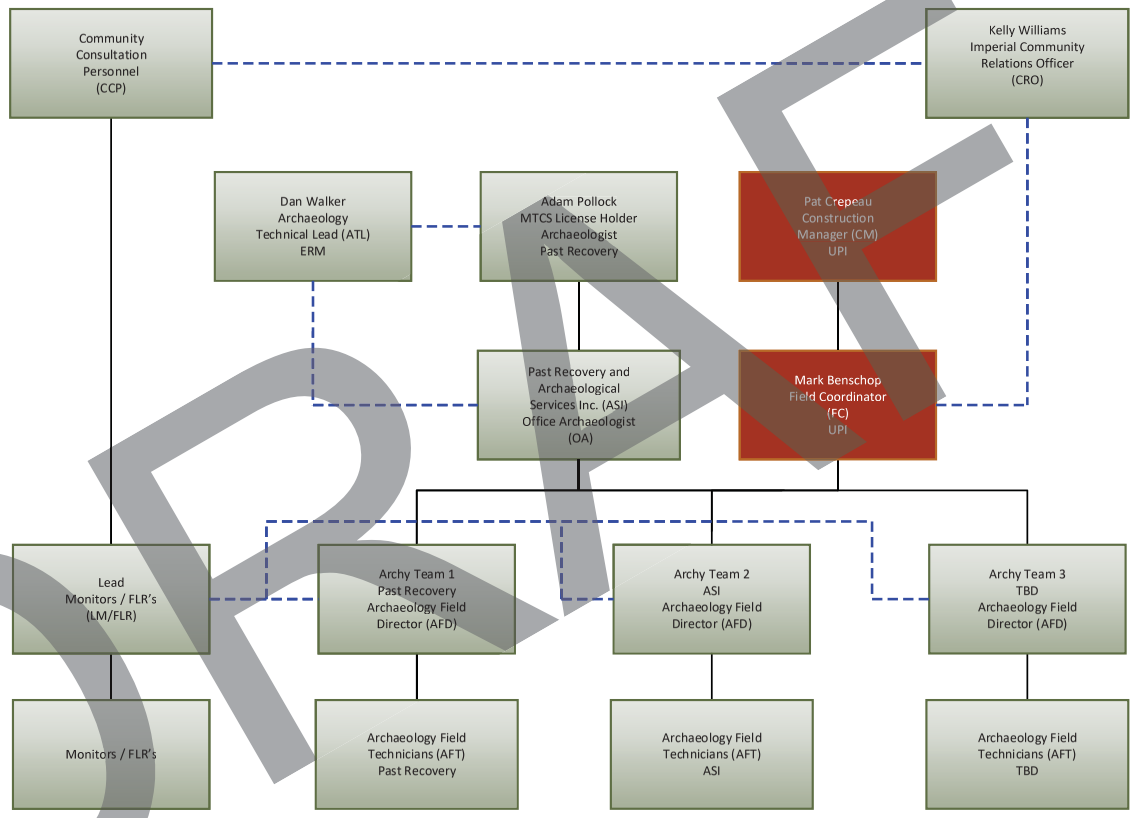


Imperial Oil
Waterdown to Finch Project
Organizational Chart

Archaeological Team



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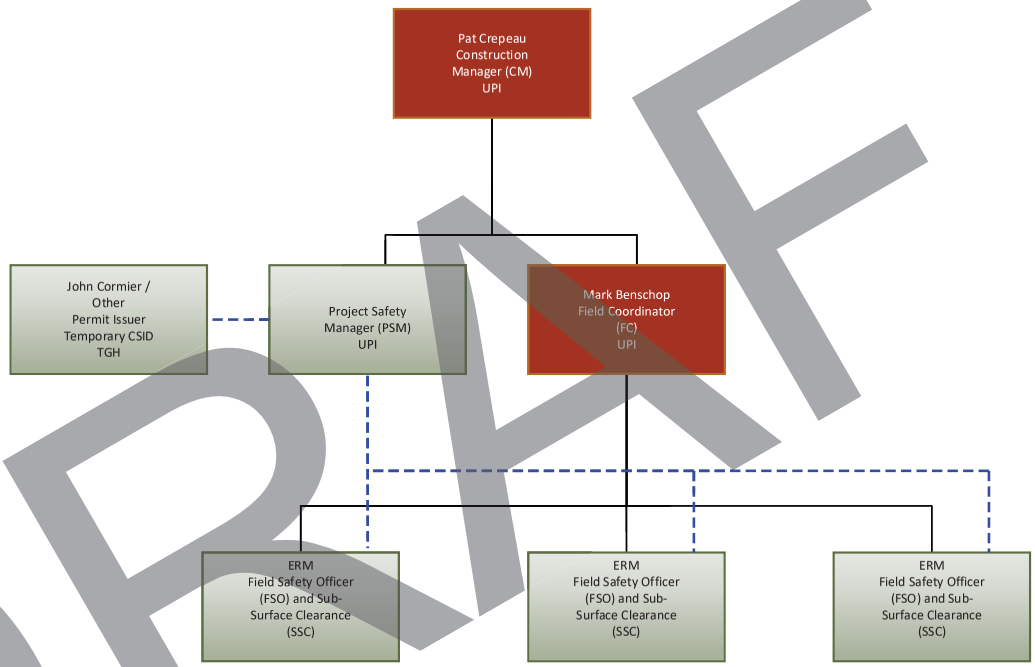
Interface

Manages activities

Staff

Imperial Oil
Waterdown to Finch Project
Organizational Chart

Field Safety Team



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Interface

Manages activities

Staff

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: November 15, 2019 12:10 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch Project-Imperial-Documents
Attachments: E.1_WFP_UPI_Chance_Find_Procedure .pdf; E.1_WFP_UPI_Spill_Plan.pdf; SPPL Emergency Response Plan_DRAFT.PDF

From: Williams, Kelly /C
Sent: Friday, November 15, 2019 2:06 PM
To: Todd Williams <williams.todde@gmail.com>; 'Wayne Hill' <tworowarchaeology@gmail.com>
Cc: 'Brian Doolittle' <ganowa@me.com>; 'HDI Tracy' <traceyghdi@gmail.com>; 'HDI' <hdi2@bellnet.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Subject: Waterdown-Finch Project-Imperial-Documents

Good afternoon Todd and Wayne,

I hope you and your staff are safe after the early winter weather blast this past week. Imperial committed to providing these documents to the project engagement communities for review and comment. If HCCC/HDI has designated a contact for incident notification, please forward to me at your convenience and I will ensure that that it is added to the documents. The documents attached:

Emergency Response Plan for the Sarnia Products Pipeline: Notification and engagement of HCCC/HDI in the event of an incident has been added to these documents. Note that the document is made up of two components.

- *Specific Contingency Plan (pages 1-7):* This section outlines the initial steps taken in the event of an incident. Please see page 3 (highlighted in blue) for the proposed addition. This document is the trigger for notification of HDI for an incident and would also initiate the process for a liaison from HDI to participate in the Incident Command System.
- *Asset-Specific Tactical Plans (pages 8-84)*: This section outlines specific tactical plans for sensitive areas along the pipeline. For each tactical plan, the required notifications are listed. Please see page 12 (highlighted in blue) for the proposed addition. Note that we have shown an update to only one tactical plan for initial review, but this addition will be made for each tactical plan (there are 22 in this document) once contact information is confirmed.

Chance Find Procedure and Spill Prevention and Response Plan: These documents are in initial draft format and will continue to be developed in collaboration with the construction contractor once selected, as they are intended to be implemented in the field during construction work.

If you have any questions, please contact me.

Best regards,

kelly

Kelly Williams
Community Relations Officer Waterdown-Finch Project

ROC3585b Attachment - Chance Find Protocol (9 pages)
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Waterdown to Finch Project

Chance Find Heritage Resources Contingency Plan

EM Document No.:
ONT-WF-SPPL-UP-RP-0009

UPI Doc Number:
24255-598-3RT-10016

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ACRONYMS AND ABBREVIATIONS

Chance Find Plan	Chance Find Heritage Resources Contingency Plan
EI	Environmental Inspector
EPC	Engineering, Procurement and Construction Management
IO	Infrastructure Ontario
MTCS	Ministry of Tourism, Culture and Sports
ROM	Royal Ontario Museum
TRCA	Toronto Region and Conservation Authority

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1. OVERVIEW AND PURPOSE

As part of the Waterdown to Finch Environmental Protection Plan (EPP), the Chance Find Heritage Resources Contingency Plan ("Chance Find Plan") has been developed to provide Imperial Oil Limited (Imperial) and its Contractor(s) with the appropriate response guidelines and procedures in the event unidentified heritage resources and sites are encountered during construction activities. Imperial has completed a number of environmental studies, including a comprehensive Stage 2 Archaeological Assessment of the Workspace, in preparation for development of this Project. Nevertheless, even thorough investigations do not fully remove the potential for impacts on as-yet unknown Heritage sites, including pre- and post-contact archaeological sites and paleontological sites. Therefore, though the potential for unknown Heritage Resources is low, the Chance Find Plan aims to avoid and/or reduce Project risks that may result due to such chance finds, and to ensure protection of heritage resources and sites. Examples of cultural heritage sites and paleontological resources include but are not limited to the following:

- Prehistoric artifacts such as projectile points/arrowheads, pottery sherds, shell, stone tools, cooked or modified animal bone, or chipped stone.
- Historic artifacts such as pottery sherds, window or bottle glass, nails, bricks and mortar, or cut stone.
- A cluster or concentration of prehistoric or historic artifacts.
- Features such as soil stains, trash pits, fire pits/hearths, post molds, earthen mounds.
- Architectural remains such as stone, brick, or concrete foundations, piers, concrete slabs, or other structural remains.
- Body fossils (fossilized remains of ancient organisms) and trace fossils (impressions made on a substrate by ancient organisms).

The Chance Find Plan will be implemented in the case of unanticipated discoveries of archaeological or paleontological sites during construction and will be implemented in conjunction with regulators and Indigenous communities. This document includes the regulatory framework and general guidelines for the protection of these resources and sites.

2. REGULATORY CRITERIA

Under the *Ontario Heritage Act* RSO 1990 c O.18 *Environmental Assessment Act*, or through the Class Environmental Assessment process lands require archaeological assessment in compliance with the 2011 Standards and Guidelines for Consultant Archaeologists (Ontario Ministry of Tourism, Culture and Sports ["MTCS"] 2011). Consideration must be made for the interests of other stakeholder groups and regulatory agencies where relevant, including the Toronto and Region Conservation Authority (TRCA), Infrastructure Ontario (IO), municipal by-laws, and Indigenous communities in accordance with the 2011 Draft Technical Bulletin: Engaging Aboriginal Communities in Archaeology (Ontario MTCS 2011).

3. ROLES AND RESPONSIBILITIES

3.1 Proponent

Imperial is the owner of the Project and aside from external regulatory reporting, will delegate the implementation of this Chance Find Procedure to the Engineering, Procurement and Construction Contractor ("EPC").

Imperial is responsible for all regulatory and external reporting associated with the Chance Find Procedure and in accordance with permits and authorizations.

3.2 Engineering, Procurement and Construction Contractor

The EPC is responsible for the development, design and supervision of the implementation of the Chance Find Plan. EPC responsibilities include:

- Leading the development of the Chance Find Plan.
- Selecting and designing Chance Find measures that are best suited for the site-specific environmental and heritage conditions.
- Reviewing and approving on-site design modifications.
- Developing and implementing contingency plans for addressing Chance Find controls that are not effectively or successfully implemented.
- Oversee inspection of Chance Find controls.

3.3 Contractor

The EPC will assign a construction Contractor who is responsible for following the Chance Find Plan activities and mitigation measures including:

- Installing the Chance Find Plan measures according to specifications.
- Inspecting, monitoring, and maintaining Chance Find Plan measures.
- Following chance find notifications and reporting requirements in accordance with specifications, permits, and authorizations.

3.4 Environmental Inspector

The EPC will assign an Environmental Inspector (“EI”) who will be responsible for inspection and monitoring of the activities and mitigation measures outlined in the Chance Find Plan.

- Understanding the Chance Find Plan and its implementation.
- Monitoring compliance with the provisions of the Chance Find Plan.
- Implementing contingency measures if the prescribed Chance Find Plans are not effective.
- Documenting all site inspections and corrective actions.

3.5 Project Archaeologist

Imperial will designate a Project Archaeologist that will oversee and provide technical direction for archaeology of the Project, including the implementation of the Chance Find Plan.

3.6 Employees and On-site Personnel

In addition to the EI and Project Archaeologist, employees and on-site personnel/contractors will receive site orientation and training, developed by the Project Archaeologist in consultation with the EPC, regarding compliance with the Project’s Chance Find Plan. All new employees will receive site orientation and training during their induction and the training will focus on the procedure in place for responding to newly identified sites and how to report these sites or observed site impacts. Training records will be kept and maintained. Copies of the Project’s Chance Find Plan will be kept on-site for reference and on file by Imperial.

4. PLANNING AND PREVENTION

Heritage assessments undertaken prior to construction are designed to identify and mitigate effects to Heritage Resources. However, even the most thorough investigations may not identify all Heritage Resources that may be impacted during project development. Therefore, though the potential for unknown Heritage Resources is low, the Chance Find Plan is designed to mitigate impacts to any additional cultural heritage sites that were not identified prior to construction. For purposes of the Chance Find Plan, cultural heritage sites include human remains interred by any means, as well as archaeological materials such as prehistoric or historic objects (artifacts), features, structural remains, and landscape modifications. Paleontological resources are the fossilized remains of plants and animals.

The following procedures will be implemented for the Project if unanticipated discoveries of archaeological or paleontological materials occur in the course of construction activities (Figure 4-1; Table 4-1).

Table 4-1: Chance Find Procedures

Activity / Feature	Procedure
Chance finds	If personnel suspect they have discovered archaeological materials, or paleontological materials they are to: 1. Stop any earthwork or construction activities, including movement of equipment, within 50 m of the find. 2. Leave the material in place and mark the area around the site using a 50 m buffer zone. 3. Contractor report the discovery to the EI immediately. 4. EI will contact the Project Archaeologist immediately. 5. The Project Archaeologist or designate will assess the find and If the find is determined to have cultural heritage value or interest (CHVI): a. the EI and Project Archaeologist will inform the MTCS and local Indigenous communities of the find. b. the Project Archaeologist and EI, in consultation with the MTCS and local Indigenous communities, will develop a mitigation plan in accordance with the 2011 Standards and Guidelines. c. Once the mitigation plan has been completed and approval is received from MTCS and indigenous communities work can continue. 6. If the find is determined not to have CHVI construction can continue.
Human remains	If human remains are found the Standards and Guidelines state that “The *Cemeteries Act*, R.S.O. 1990 c. C4 and the *Funeral, Burial, and Cremation Services Act* 2002, S.O. 2002, C.33 (when proclaimed in force) require anyone who uncovers a burial site containing human remains to cease fieldwork or construction activities and report the discovery to the appropriate authorities (police or coroner).” In a case where suspected human remains or unmarked burial are encountered the following steps will be taken:

Activity / Feature	Procedure
	1. Stop any earthwork or construction activities, including movement of equipment, within 50 m of the find. 2. Leave the material in place, mark and secure the area (50 m buffer zone) and assign personnel to monitor the area and prevent any unauthorized access. 3. Contractor report the discovery to the EI immediately. 4. EI will immediately contact the Project Archaeologist and the appropriate authorities (police). 5. Following confirmation that the remains are human: a. The police to manage the site if deemed criminal. b. The Project Archaeologist to manage the site if deemed non-criminal (e.g., unmarked grave of Euro-Canadian or Indigenous affiliation). 6. If deemed criminal, resume work in the area only upon completion of the site-specific mitigation plan and following clearances granted from the appropriate regulatory agencies (police). 7. If deemed non-criminal: a. the EI and Project Archaeologist will inform the MTCS and local Indigenous communities of the find. b. the Project Archaeologist and EI, in consultation with the MTCS and local Indigenous communities, will develop a mitigation plan. c. once the mitigation plan has been completed and approval is received from MTCS and indigenous communities work can continue. 8. If the site is deemed to be faunal (animal) remains, continue the assessment with no additional engagement from authorities.
Paleontological materials	In a case where suspected paleontological materials are encountered the following steps in addition to the steps above are to be taken: 1. Secure the area (50m buffer zone) and assign personnel to monitor the area and prevent unauthorized access. 2. The Project Archaeologist to report the discovery to the appropriate authorities (Royal Ontario Museum [“ROM”], Local Paleontological Society). 3. The Project Archaeologist or designate to prepare and implement a site-specific mitigation plan.

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5. REFERENCES

Cemeteries Act, R.S.O. 1990 c. C4

Funeral, Burial, and Cremation Services Act, 2002. S.O. 2002, C.33

Ontario Ministry of Tourism and Culture, 2011. *Engaging Aboriginal Communities in Archaeology: A Draft Technical Bulletin for Consultant Archaeologists in Ontario.* Queen's Printer for Ontario: Toronto.

Ontario Ministry of Tourism and Culture, 2011. *Standards and Guidelines for Consultant Archaeologists*. Queen's Printer for Ontario: Toronto.

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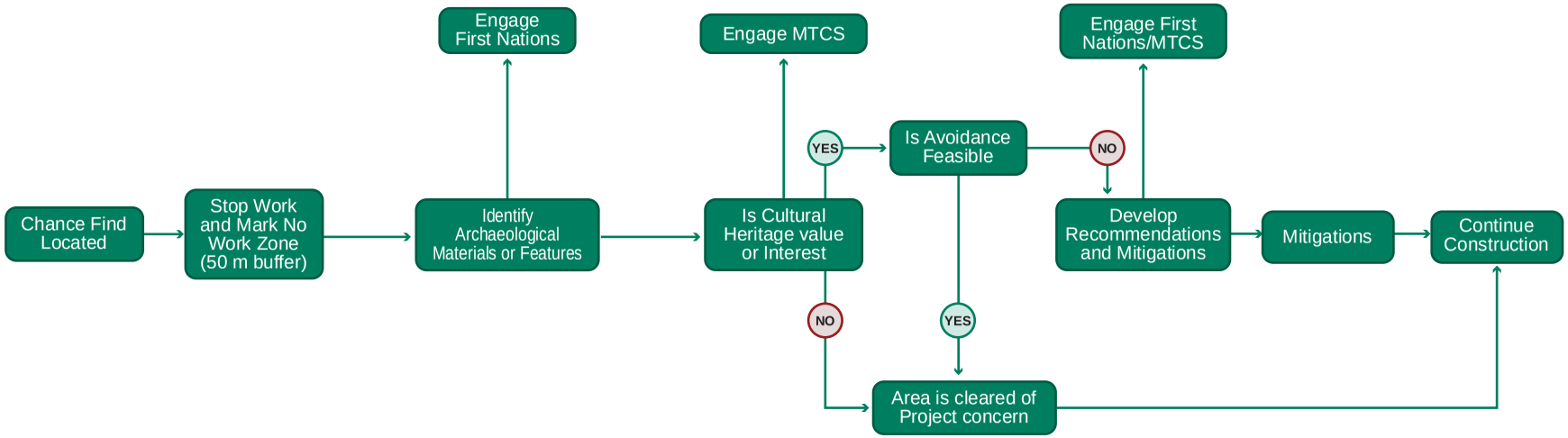

Figure 4-1: Chance Find Workflow

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ROC3585c Attachment - Spill Prevention and Response Plan (15 pages)

Waterdown to Finch Project

Spill Prevention and Response Plan

EM Document No.:
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ACRONYMS AND ABBREVIATIONS

CEPA	*Canadian Environmental Protection Act*
EI	Environmental Inspector
EPA	Ontario *Environmental Protection Act*
EPP	Environmental Protection Plan
EPC	Engineering, Procurement and Construction Management Contractor
MECP	Ministry of Environment, Conservation and Parks
NFPA	National Fire Protection Association
HDB	Horizontal directional boring
HDD	Horizontal directional drilling
QP	Qualified Person
SAC	Spills Action Centre
SPPL	Sarnia products pipeline
UFC	Unified Facilities Criteria
UPI	Universal Pegasus International

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1. OVERVIEW AND PURPOSE

As part of the Waterdown to Finch Project Environmental Protection Plan ("EPP"), this Spill Prevention and Response Plan has been developed to provide best practices for the Contractor to implement during and construction activities. It provides guidance on spill prevention, contingency planning, and reporting practices for the timely and effective prevention and response to potential inadvertent, construction-related releases to land and surface water. This Spill Prevention and Response Plan delineates provisions for the inadvertent release of both non-hazardous and potentially hazardous material (e.g., certain lubricating oils, drilling wastes).

The guidelines included in this Spill Prevention and Response Plan will be followed to reduce the potential for a spill to land or surface water and thereby protect terrestrial, groundwater and surface water resources. Performance objectives for the management of potential substance release have been included in this Spill Prevention and Response Plan that consider the Project's risks and compliance obligations, including:

- Planning and prevention - preventing the inadvertent release of materials that may have a deleterious effect on the terrestrial and aquatic environments;
- Spill management - responding with appropriate measures in a timely manner to an inadvertent release; and
- Spill notification and reporting - providing timely notifications and reports to key project personnel and regulatory agents.

All employees, contractors and consultants will abide by all federal, provincial and local requirements for disposal and release reporting requirements for all products and waste materials that are potentially hazardous to human health and the environment.

Once in operation, the pipeline will be included in Imperial's current operational plans and procedures for the SPPL and is not within the scope of this plan. This includes Imperial's Emergency Response Plan that will be implemented in response to the unlikely event of a pipeline leak during operation.

2. REGULATORY CRITERIA

The interception and cleanup of spills must comply with provisions in the *Environmental Protection Act*, R.S.O. 1990 ("EPA"), specifically regulation 224/07 which outlines regulation for Spill Prevention and Contingency Plans and regulation 675/98 and 225/07 which outline the Classification and Exemption of Spills and Reporting of Discharges. Under Ontario Reg. 675/98, in the event of an inadvertent spill, the Spills Action Centre ("SAC") must be notified in a timely manner.

The Contaminated Materials and Management and Handling Plan will be implemented according to the requirements of the Ministry of Environment, Conservation and Parks ("MECP").

3. ROLES AND RESPONSIBILITIES

3.1 Proponent

Imperial Oil Limited is the owner of the Project and aside from external regulatory reporting, will delegate the implementation of this Spill Prevention and Response Plan to the Engineering, Procurement and Construction Contractor ("EPC").

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Imperial is responsible for all regulatory and external reporting associated with the Spill Prevention and Response plan and in accordance with permits and authorizations.

3.2 Engineering, Procurement and Construction Contractor

The EPC is responsible for the development, design and supervision of the implementation of the construction Spill Prevention and Response Plan, including:

- Leading the development of the Spill Prevention and Response Plan.
- Selecting and designing Spill Prevention and Response measures that are best suited for the site-specific environmental conditions.
- Reviewing and approving on-site design modifications.
- Developing and implementing contingency plans for addressing Spill Prevention and Response controls that are not effectively or successfully implemented.
- Overseeing inspection of Spill Prevention and Response controls.

3.3 Authorized Personnel

The Contractor will assign Authorized Personnel who will be designated to handle fuel, lubricants or other regulated substances. Authorized personnel will be familiar with the requirements of the Spill Prevention and Response Plan.

3.4 Contractor

The EPC will assign a construction Contractor who is responsible for following the Spill Prevention and Response Plan including:

- Installing the Spill Prevention and Response Plan measures according to specifications.
- Inspecting, monitoring, and maintaining Spill Prevention and Response Plan measures.
- Personnel shall notify the crew foreman or Environmental Inspector immediately of any spill of a petroleum product or hazardous liquid, regardless of volume.
- Following spill prevention, notifications and reporting to Imperial.

3.5 Environmental Inspector

The EPC will assign an Environmental Inspector (“EI”) who will be responsible for inspection and monitoring of the activities and mitigation measures outlined in the Spill Prevention and Response Plan including:

- Understanding the Spill Prevention and Response Plan and its implementation.
- Inspecting Spill Prevention and Response measures on a regular basis and after rainfall/snowmelt events.
- Monitoring compliance with the provisions of the Spill Prevention and Response Plan.
- Implementing contingency measures if the prescribed Spill Prevention and Response Plans are not effective.
- Confirm appropriate agency notifications are made (notification to be completed by Imperial), spill resources are allocated, and clean-up is accomplished in accordance with applicable agency requirements.
- Documenting all site inspections and corrective actions.

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3.6 Subcontractor(s)

If the Contractor or EI determines that a spill is beyond the scope of on-site equipment and personnel, the Contractor will assign an emergency response Subcontractor to contain and/or clean up the spill.

The Contractor or Subcontractor will retain a Qualified Person ("QP"), as defined in Ontario Regulation 153/04 (as amended) and licensed to practice in the Province of Ontario, to review, direct and manage all activities related to soil management (contaminated, non-contaminated, excess soil etc.) and soil importation activities during the construction activities of the Project.

The Subcontractor will assist the Contractor and EI to monitor containment procedures to ensure that the actions are consistent with the requirements of this Spill Prevention and Response Plan.

4. PLANNING AND PREVENTION

This section summarizes minimum standards for handling and storing regulated substances and cleaning up spills. Potential sources of construction-related spills include machinery and equipment failure, fuel handling, transfer accidents and storage tank leaks. The Contractor will be responsible for implementing, at a minimum, the following planning and prevention measures (Table 4-1).

Table 4-1: Spill Planning and Prevention Measures

Activity/ Feature	General Spill Prevention Measures
Training	1. Train Contractors and all involved on-site staff on the Spill Prevention and Response Plan, implementation, prevention, use of emergency kit and reporting for both hazardous materials and spill response. 2. Include specific instructions regarding applicable notifications and appropriate response actions to be taken in the event of a release in on-site staff training. 3. Contractor employees will be briefed on procedures to respond to a pipeline spill (e.g. damage to a third party adjacent in-service pipeline) during mandatory safety and environment training to be provided by the EPC.
Planning	4. Temporary workspaces to be assessed prior to use to identify suitable locations for long term vehicle parking, refueling stations, and areas for mechanical work and signage provided to illustrate where these activities are to take place. 5. Spill prevention equipment (spill kits, drip pans, etc.) to be strategically located at each site.
Spill kits and materials	6. Maintain spill kits to contain a sufficient quantity of absorbent and barrier materials to adequately contain and recover foreseeable spills. These kits may include, but are not limited to absorbent pads, straw bales, absorbent clay, sawdust, floor-drying agents, spill containment barriers, plastic sheeting, skimmer pumps, and holding tanks. This equipment will be located near fuel storage areas and other locations as necessary to be readily available. 7. Maintain, clearly label and have easily visible the appropriate release containment (spill kits) and recovery equipment and materials at all work sites. 8. Contractor to train all staff with the locations of the spill control equipment and materials and have readily accessible during construction activity. 9. Carry materials adequate to control foreseeable spills in all fueling vehicles, and where necessary, service vehicles. Such material may include but not be limited to absorbent pads, commercial absorbent material, plastic bags with ties, and shovels.

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Activity/ Feature	General Spill Prevention Measures
Transport, Storage and Handling of Fuels/ Hazardous Liquids	10. Only employ Authorized Personnel to transport, store, and handle fuels / hazardous liquids. 11. Travel of fuel trucks transporting fuel to on-site construction equipment occur only on access roads approved by the EI. 12. Maintain all equipment in proper running order to prevent leaking or spilling of potentially hazardous or toxic products. This includes hydraulic fluid, diesel, gasoline and other petroleum products. 13. Store all hazardous materials, chemicals, fuels and lubricating oils more than 30 m from any wetlands, streams and waterbodies. 14. Do not park equipment overnight (including but not limited to light plants, generators, pumps, and machinery) within 30 m of a wetland or waterbody unless secondary containment provisions have been implemented and approved by the EI in advance. 15. Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water (e.g., at a distance of greater than 30 m from top of bank). 16. Store fuel in contractor yards only or as approved by the EI. 17. Equip all fuel nozzles with functional automatic shut-offs 18. Maintain signage at and adjacent to fuel storage areas indicating “Fuel Storage Area – No smoking within 15 meters.” 19. Maintain fire extinguishers in suitable locations according to regulatory requirements and specifications. 20. Keep tools and materials on-site to stop leaks. Such equipment may include, but not be limited to, plugs of various sizes, 3M tank patches, a hammer, assorted sizes of metal screws with rubber washers, a screwdriver, and plastic tape. 21. Store fuels, lubricants, waste oil, and any other regulated substances in aboveground tanks only. 22. Conform to all applicable industry codes for storage tanks and containers (e.g., Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations under the *Canadian Environmental Protection Act* [“CEPA”]). 23. Utilize a suitable secondary containment structure at each fuel storage site. Line these structures with suitable plastic sheeting; provide a minimum containment volume equal to 150 percent of the volume of the largest storage vessel. 24. Do not have drains in the secondary containment areas. Precipitation may be drawn off as necessary. Discharge any accumulated water if no spillage has occurred in the secondary containment structure. Pump any accumulated waste into drum storage for disposal if spillage has occurred in the structure. 25. Make all efforts to dispense fuel during the daylight hours. 26. Station personnel at both ends of the hose during fueling unless both ends are visible and are readily accessible by one person.
Directional Drilling/ Boring	27. Implement Inadvertent Returns during HDD Plan that includes measures to stop work, contain the drilling fluid/mud and prevent its further migration into the watercourse, and notify all applicable authorities. Prioritize clean-up activities relative to the risk of potential harm and dispose of drilling mud in a manner that prevents re-entry into the watercourse. Do not implement clean-up measures that result in greater damage to the banks and watercourse than from leaving the drilling mud in place.

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Activity/ Feature	General Spill Prevention Measures
Watercourses/ Wetlands	28. Contractor to store hazardous materials, chemicals, fuel and lubricating oils, and perform refuelling, maintenance, and lubricating activities more than 30 m from wetlands, streams, and waterbodies (including drainage ditches), and water supply wells. 29. While the setback for refueling, storage, and maintenance near wetlands and waterbodies is compulsory 30 m it may be unavoidable in certain instances due to site specific conditions or unique construction requirements (e.g., continuously operating pumps or equipment on barges). If this activity occurs within wetlands or near streams for refueling of continuously operating pumps, use secondary containment for these unique requirements. 30. Line secondary containment structures with suitable plastic sheeting, provide a containment volume of at least 150 percent of the storage vessel, and allow for at least one foot of freeboard. 31. Provide adequate lighting for these locations and activities.
Inspection and Monitoring	32. EI to monitor the Contractor's compliance with the Spill Prevention and Response Plan. 33. Notify the appropriate Spill Coordinator if an accidental spill arises, regardless of the size. 34. Notify key project personnel and regulatory agencies, per the Spill Notification and Reporting Procedures described in Table 3.

5. SPILL MANAGEMENT

The following response and management procedures will be followed immediately upon learning of any fuel, oil, hazardous material, sediment release, drilling mud or other regulated substance spill, or upon learning of conditions that will lead to an imminent spill (Table 5-1). Spills are defined as the release of a pollutant into the natural environment, from or out of a structure, vehicle or other container that is abnormal in quality or quantity in light of all of the circumstances.

Table 5-1: Spill Response and Management Procedures

Activity/ Feature	General Response and Management Measures
Immediate Spill Response	1. When a spill has occurred, the Contractor will immediately: a. Assess the safety hazards of the situation and remove sources of ignition, if safe to do so. b. Identify the product, stop the source and physically contain the spill as soon as safe to do so. c. Engage emergency services if required. d. Notify Imperial Oil Limited and the EI of the incident. e. Mobilize on-site personnel, equipment, and materials for containment and/or cleanup commensurate with the extent of the spill. f. Engage and assist the Emergency Response Subcontractor as needed and monitor containment procedures to ensure that the actions are consistent with the requirements of this Spill Prevention and Response Plan. g. Coordinate with Imperial to determine the need to evacuate spill sites to safeguard human health; and h. Delineate the release and containment area to avoid further disturbance in the area. 2. EI will complete the Spill Report Form (Appendix A) 3. Imperial Oil Limited will notify the applicable stakeholders

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Activity/ Feature	General Response and Management Measures
Spill Response – Fuel Truck	In addition to the Immediate Spill Response above, the Contractor will: 4. Pump the tanker dry (into appropriate containers or another tanker). 5. Remove the tanker from the site. 6. Recover the spilled product. 7. Clean-up the contaminated area with absorbent materials. 8. Dispose of sorbent pads, heavily contaminated soil and vegetation at an approved facility.
Spill Response - Adjacent to or into a Waterbody	In addition to the Immediate Spill Response above, the Contractor will: 9. Deploy booms, skimmers, sorbents, etc., if feasible, to contain and recover the spilled material from the waterbody. 10. Clean-up the contaminated area, including downstream shorelines. 11. Dispose of contaminated soil and vegetation at an approved facility.
Pipeline spill	12. Notify Imperial's Emergency Pipeline Control at 1-800-372-9597 (24-hours/day) as well as the Imperial Environmental Lead in the event of a suspected Imperial pipeline spill (or from an adjacent pipeline). Imperial Operations to implement the Operational Emergency Response Plan.
Cleanup, storage and disposal of contaminated materials	13. Determine clean-up options and appropriate methods to recover and dispose of potentially contaminated soil or vegetation at an approved facility. 14. Recover the released materials from the defined containment area using equipment suitable to the nature and extent of the release. 15. Cleanup the release and contaminated areas. Consultation with a qualified remediation specialist and/or Company Representative may be required. 16. Store and cover excavated soils on site with plastic sheeting in a bermed area to prevent and contain runoff if temporary storage is necessary. 17. Dispose of contaminated materials, and contaminated soils and vegetation at an approved facility in accordance with applicable provincial and federal regulations. 18. Use only licensed carriers to transport contaminated material from the site to a disposal facility. 19. For the storage and disposal of contaminated materials refer to the Waste Management Plan.

6. SPILL NOTIFICATION AND REPORTING

The following notification and reporting procedures will be taken immediately upon learning of any fuel, oil, hazardous material, sediment release, drilling mud or other regulated substance spill (Table 6-1).

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Table 6-1: Spill Notification and Reporting Procedures

Activity / Features	General Notification and Reporting Procedures
Internal notification	1. Contractor to notify Imperial and EI immediately of any spill of a petroleum product or hazardous liquid, regardless of volume. 2. Imperial to notify applicable stakeholders as required.
Internal reporting	3. Contractor to ensure all cleanup activities required by a jurisdictional agency are satisfactorily met and provide documentation to Imperial demonstrating this compliance. a. EI to complete a Spill Report Form (refer to Appendix A) within 24-hours of the occurrence of a spill, regardless of the size of the spill. Include a record of the report in the Project files per Ontario Regulation 675/98: b. Imperial to keep this record for two years after the spill for all Class V, VII, VIII, IX and XI spills. c. Imperial to keep this record for five years after the spill for all Class X (non-reportable) spills. 4. Contractor to complete any required follow up written reports, associated laboratory analysis, and other documentation as requested by the EI on a site specific basis.
External notifications	5. Imperial to report spills and discharges, per the Ontario EPA, to the MECP through the SAC at 1-800-268-6060. 6. Imperial to notify the appropriate federal, provincial and local agencies, Indigenous communities as well as additional parties or agencies. 7. Imperial to report the spill to the municipality in which the spill occurred. 8. Imperial to notify the landowner of the property on which the spill occurred. 9. All spills, regardless of volume, that enter directly or indirectly into a sanitary or storm sewer or rural ditch must be reported to the City of Hamilton, City of Toronto, City of Burlington, City of Mississauga, the Region of Halton, Region of Peel, Town of Milton and the Town of Oakville. Phone numbers for all stakeholders are in Appendix B. Exemptions for municipal notifications will be reviewed on a case by case basis.

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7. REFERENCES

Government of Ontario. 1990 (updated 2019). Environmental Protection Act, R.S.O 1990, c. E. 19 Available online at https://www.ontario.ca/laws/statute/90e19. Accessed May 2019.

OEB (Ontario Energy Board). 2016. *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario*. 7th Edition, 2016.

MOE (Ministry of Environment). 2007.Guideline for Implementing Spill Prevention and Contingency Plans Regulatory Requirements (O.Reg.224/07). Available at https://archive.org/details/std01079161.ome/page/n7. Accessed May 2019.

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APPENDIX A SPILL REPORT FORM

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Spill Report Form

(The Contractor must complete this for any spill, regardless of size, and submit the form to the Imperial Representative within 24 hours of the occurrence)

Date of Spill: _____ Date of Spill Discovery: _____

Time of Spill: _____ Time of Spill Discovery: _____

Name and Title of Discoverer: _____

Type of material spilled and manufacturer's name: _____

Legal Description of spill location to the quarter section: _____

Directions from nearest community: _____

Estimated volume of spill: _____

Estimated duration of the release of the pollutant: _____

Weather conditions: _____

Topography and surface conditions of spill site: _____

Spill medium (pavement, sandy soil, water, etc.): _____

Proximity of spill to surface waters: _____

Did the spill reach a waterbody? _____ Yes _____ No

If so, was a sheen present? _____ Yes _____ No

Describe the causes and circumstances resulting in the spill: _____

Describe the extent of observed contamination, both horizontal and vertical (i.e., spill-stained soil in a 5-foot radius to a depth of 1 inch): _____

_____

Describe immediate spill control and/or cleanup methods used and implementation schedule:

_____

_____

Describe the method used to dispose of the pollutant and any part of the environment that was affected by the spill: _____

Current status of cleanup actions: _____

Any adverse effects observed as a result of the spill: _____

Name and Company for the following:

Construction Superintendent: _____

Spill Coordinator: _____

Imperial Representative: _____

Person Who Reported the Spill: _____

Environmental Inspector: _____

Form completed by: _____ Date: _____

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APPENDIX B SPILL REPORTING CONTACTS

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Table B-1: Spill Reporting Contacts

Agency	Notification Period	24-hour Reporting Hotline	Regulation/Code	Comments
Provincial Contacts				
Ministry of Environment, Conservation and Parks via Spills Action Centre	Immediately	1-800-268-6060	Ontario Reg 2675/98	Will include Technical Standards and Safety Authority notification, if applicable.
Municipal Contacts				
City of Hamilton	Contractor to confirm	1-905-540-5188	Ontario Reg 2675/98	Spill Reporting Hotline
City of Toronto	Contractor to confirm	1-416-325-3000 311 (within Toronto)	Ontario Reg 2675/98	Spill Reporting Hotline
City of Burlington	Contractor to confirm	1-905-333-6166	Ontario Reg 2675/98	City of Burlington Roads, Parks and Forestry Department
City of Mississauga	Contractor to confirm	1-905-615-3000	Ontario Reg 2675/98	24 hour dispatch
Region of Peel	Contractor to confirm	1-905-791-7800	Ontario Reg 2675/98	Spill Response Hotline
Town of Milton	Contractor to confirm	1-905-878-7252 311 (within Milton)	Ontario Reg 2675/98	Town of Milton
Town of Oakville	Contractor to confirm	1-905-845-6601 311 (within Oakville)	Ontario Reg 2675/98	Town of Oakville
Indigenous Community Contacts				
Haudenosaunee Development Institute	TBD	TBD		Haudenosaunee Confederacy Chiefs Council
Huron-Wendat Nation	TBD	TBD		
Mississaugas of the Credit First Nation	TBD	TBD		
Six Nations of the Grand River	TBD	TBD		
Conservation Authority Contacts				
Toronto Region Conservation Authority	Contractor to confirm	1-416-661-6600		Toronto Region Conservation Authority
Hamilton Region Conservation Authority	Contractor to confirm	1-905-825-6000		Hamilton Region Conservation Authority
Halton Region Conservation Authority	Contractor to confirm	1-905-825-6000		Spill Response Hotline
Credit Valley Conservation Authority	Contractor to confirm	1-905-670-1615		Credit Valley Conservation Authority

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TITLE **Imperial Facility - Emergency Response Plan**
SECTION 08: Specific Contingency Plans
SUBJECT 15: Spill - Low Vapour Pressure 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 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.

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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.

Incident : _____ Facility: _____ Date : _____

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	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 all 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	Isolate the leaking pipeline section by ensuring the appropriate main valves are closed, if safe to do so.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	6	Assess the situation using the "Disciplined Approach": a) Evaluate the extent of the spill b) Determine the need to stop all/or other operations including shutting down other pipelines in the same corridor, if applicable. c) 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) d) Determine the need to call the Facility ER Team (ERP-09-04: Appendices: Facility Specific «Contacts Lists») e) Evaluate the need for Municipal ER support. If required, call local Police, Fire Services and Public Works (ERP-09-04) f) Notify First Nations so they are able to stand up representatives to attend to protection of critical sites and provide guidance to responders. (ERP-09-04 to be updated with regional First Nations contact information) g) Decide on the action plan. Get Support, if required and Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»).		
	7	Evaluate effectiveness of the safety perimeter, using air-monitoring equipment (Lower Explosion Limit), if applicable		
	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.		
	11	Call the local Police for traffic and safety perimeter control and the Fire Dept. Services for vapour dispersion or suppression and fire prevention, if spilled product migrated off the right of way or if otherwise warranted and not already done. See ERP-09-04		

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Continue following steps if the spill has migrated to public or third party premises. If not, go directly to step #17.

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	12	Establish a Unified Command structure with Public Authorities as per ERP-01-05, ERP-02-01 and ERP-04-02, if not already done.		
	13	Notify IOL Public Affairs (ERP-06-02: Emergency Response Contacts and Resources: Other Imperial Emergency Response Resources).		
	14	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; a) Did spill/leak go into any city sewer systems (sanitary, rainwater or sanitary)? b) 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») c) Are vapours present in nearby businesses/residences? d) Did the spilled material reach the water table? e) Any drinking water wells within 1 km of the spill source? f) What response resources do you have? g) Decide on the action plan.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	15	Did hydrocarbon go into a city sewer system? If yes: a) Contact City Public Works (ERP-09-04 or dial "0") b) Obtain sewer plot plan from the City Public Works c) Determine safety perimeters using monitoring device (i.e. like LEL meters) in co-operation with City Public Works d) Have installed appropriate number of chimneys or explosion-proof fans at street manholes to discharge the vapours e) Verify if gasoline vapours are present in nearby residences and if so, request Police /Fire Dept to evacuate those residents f) Identify / Ensure no sources of ignition g) Block sewers downstream. Recover product with a vacuum truck and have sewer systems flushed starting upstream. If distillate, use the same steps even though there are much lesser risks associated with this type of product.		
	16	Did petroleum product reach the water table? If yes: a) Provide alternate source of drinking water to affected residents b) Involve a company Environmental Specialist c) Determine the perimeter by taking water samples and getting them analyzed using the services of a professional firm d) Transfer the follow-up activities with help from the Imperial (CFO) Business Management involved.		
	17	Is hydrocarbon present in a ditch, stream or river? If yes: a) Remove all sources of ignition b) If crude, check for H_2S c) Disperse the vapours with water fog d) Ask the Fire Dept Services to spray a blanket of hydrocarbon compatible foam, if hydrocarbon trapped and is felt appropriate e) Recover product with a vacuum truck. If distillate: a) Remove all sources of ignition b) Contain using a dam, boom or other means c) Recover with a vacuum truck.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	18	Identify any potential downwind exposures (i.e. flammable vapour cloud, liquid product movement, etc.). If necessary, utilize Police for any further remaining evacuations.		
	19	Refer to ERP-04-03: General Response Procedures: Response Principles and Key Tactics of this Plan for general product behaviors and response tactics.		
	20	Advise Fire Services to spray foam (hydrocarbon compatible foam such as AFFF or AFFF/ATC for alcohol type concentrate). If needed.		
	21	Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»), if not already done.		
	22	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 Other useful numbers can be found in ERP-06-03, or, in ERP-09-04 for Local Authorities: Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____		
	23	Determine the potential for additional releases, if safe to do so.		
	24	Use absorbents and/or other methods to contain the spilled product at the spill area(s).		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	25	Re-evaluate safety perimeter, using air monitoring equipment (such as LEL) and permit vehicle traffic only if appropriate.		
	26	Recover visible product in affected area(s), using appropriate transfer equipment or vacuum truck and use established safe operating procedures.		
	27	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.		
	28	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).		
	29	Decontaminate equipment and clothing, if applicable.		
	30	Resume normal operations when situation is re-assessed and only when all potential risks have been eliminated.		
	31	Conduct debriefing with Responders and on-site personnel prior to demobilization and document, per PDM 1-15-04.		

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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

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MAP #	PART OF MUNICIPALITY OF	MILE POST
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142	Burlington, Oakville	137 - 142
147	Oakville	140 - 147
163	Mississauga	147 - 163
170	Etobicoke	162 - 170

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WATER CROSSINGS	MILE POST
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Spencer Creek	122.7
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Logies Creek (A Tributary of Spencer Creek)	130 - 130.7
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Black Creek	169

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Page for drawing of Key Map 140 named: SPPL 12

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Barlow Creek Tributary of Fairchild Creek
	Watercourse Crossing #	Map 133-Mile 121.5
	Location	Troy (Town of Flamborough)

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	
First Nations:	Haudenosaunee Development Institute Contact: TBD Phone: TBD	Huron Wendat Nation Contact: TBD Phone: TBD
	Mississaugas of the Credit First Nation Contact: TBD Phone: TBD	Six Nations of the Grand River Contact: TBD Phone: TBD

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1. Watercourse characteristics at pipeline crossing:

Estimated velocity	**Dimensions**		**Other**
Fall	Avg. Width: Avg. Depth: Max. Width:	3m .02m 6m	Bed Material: Limestone / silt

2. Potential environmental sensitivities:

Agricultural area.

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek A tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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 Dsipersants Skimmers	Foam Booms Skimmers Dispersants	Booms Foams Dispersants
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing #: Map 133-Mile 122.7 Location: Town of Flamborough

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	

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1. Watercourse characteristics at pipeline crossing:

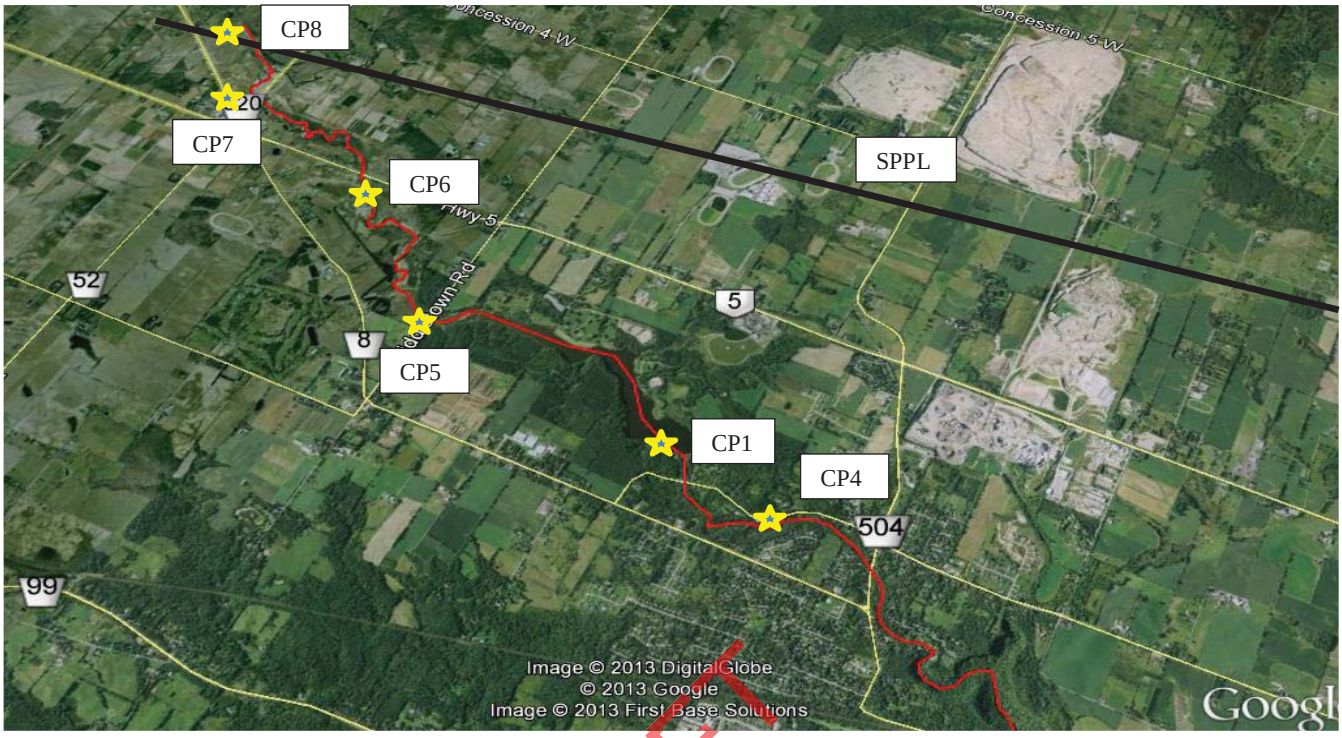
Estimated velocity		**Dimensions**		**Other**	
Fall:	1m/s	Avg. Width: Avg. Depth: Max. Width:	10m 1m 35m	Bed Material:	rock/rubble/ silt/sand

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.



Spencer Creek Control Points

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8
Harvest Rd
Rock Chapel Rd
Sydenham Rd
Creighton Rd
King St W
99
Olivet St
Osler Dr
CP3
Olympic Dr
York Rd
Coates Dr
CP2
Old Ancaster Rd
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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7	

	Control Point		
	CP1	CP2	CP3
Access/ Location	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. **Should try and stop oil before entering into Christies Conservation area, (swimming and picnic areas).** **Gate across driveway could be locked.**	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	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 **Boom 1000' to direct oil to one side of dam.**	Heavy booms Skimmers Dispersants	Heavy Booms Skimmers Dispersants
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7		
	Control Point		
	CP7	CP8	CP9
Access/ Location	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).**	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.	
Site	Control point is 15m east of bridge at meander running north. Good anchorage on both sides. 12m wide, 1m deep, .2m/s.	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.	
Containment Method	Skimmers Foam booms Dispersants	Skimmers Foam booms Dispersants	
Distance to Containment Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Spencer Creek Tributary A and B
	Watercourse Crossing #	Map 133-Mile 126.5
	Location	Town of Flamborough)

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	

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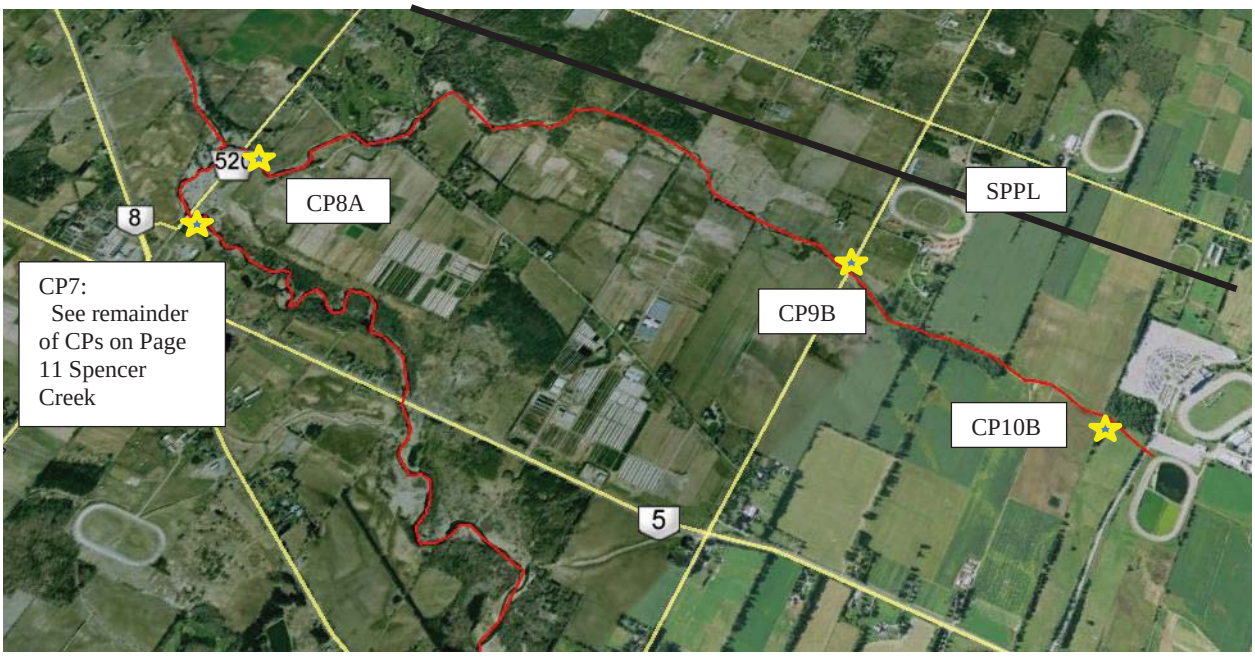
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.3m/s	Avg. Width: Avg. Depth: Max. Width:	5m .75m 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: 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.**



Spencer Creek Tributary A & B Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.6		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5		
	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, rivate 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 Disperants Skimmers
Distance to Containment Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus tributary A Watercourse Crossing #: Map 133-Mile 130.7 Location: Town of Flamborough

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	

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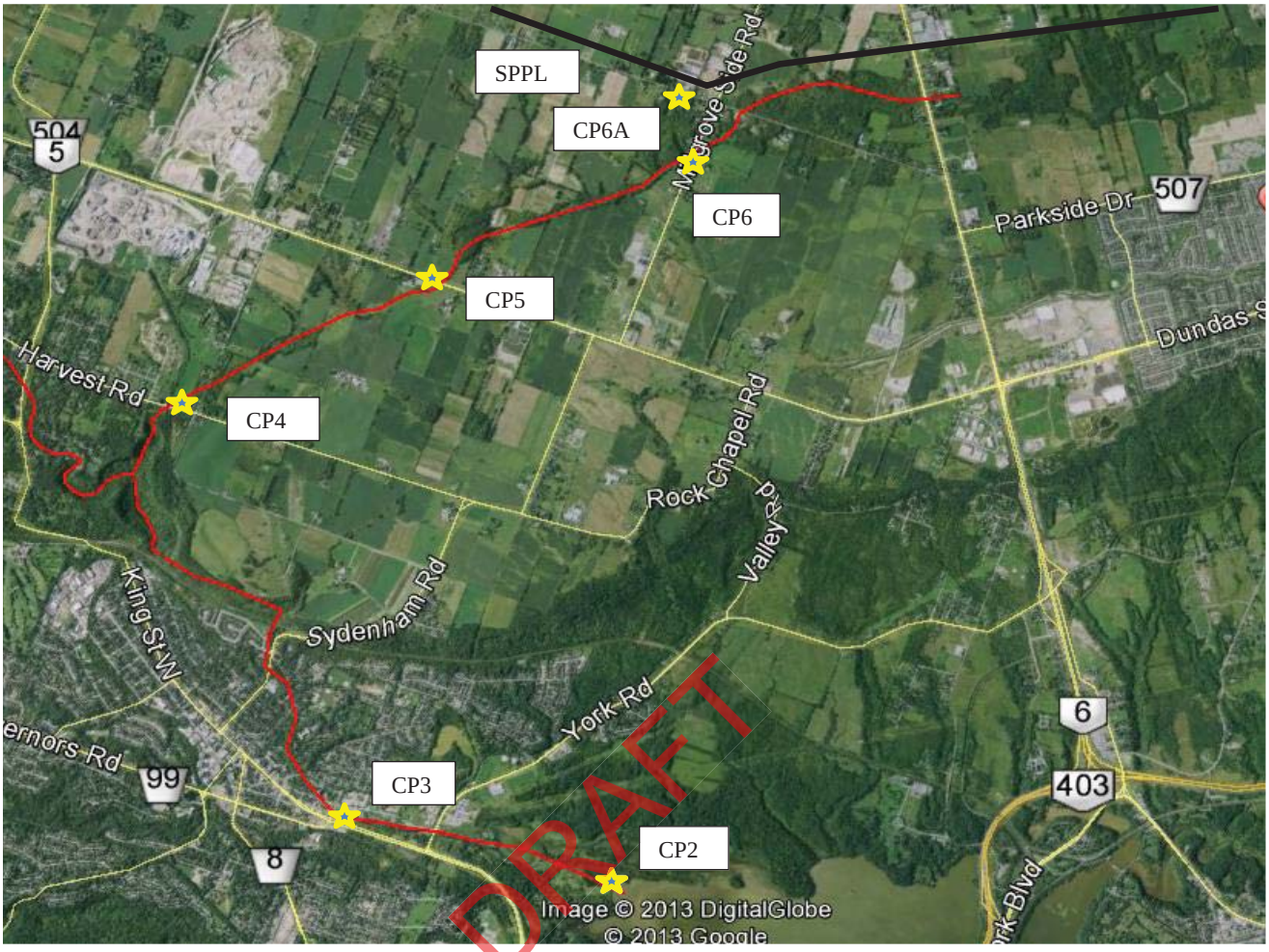
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.1m/s	Avg. Width: Avg. Depth: Max. Width:	2m .3m 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.



Logie's Creek Control Points

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Rock Chapel Creek / Borer's Creek
	Watercourse Crossing #	Map 133-Mile 130.8
	Location	Town of Flamborough

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	

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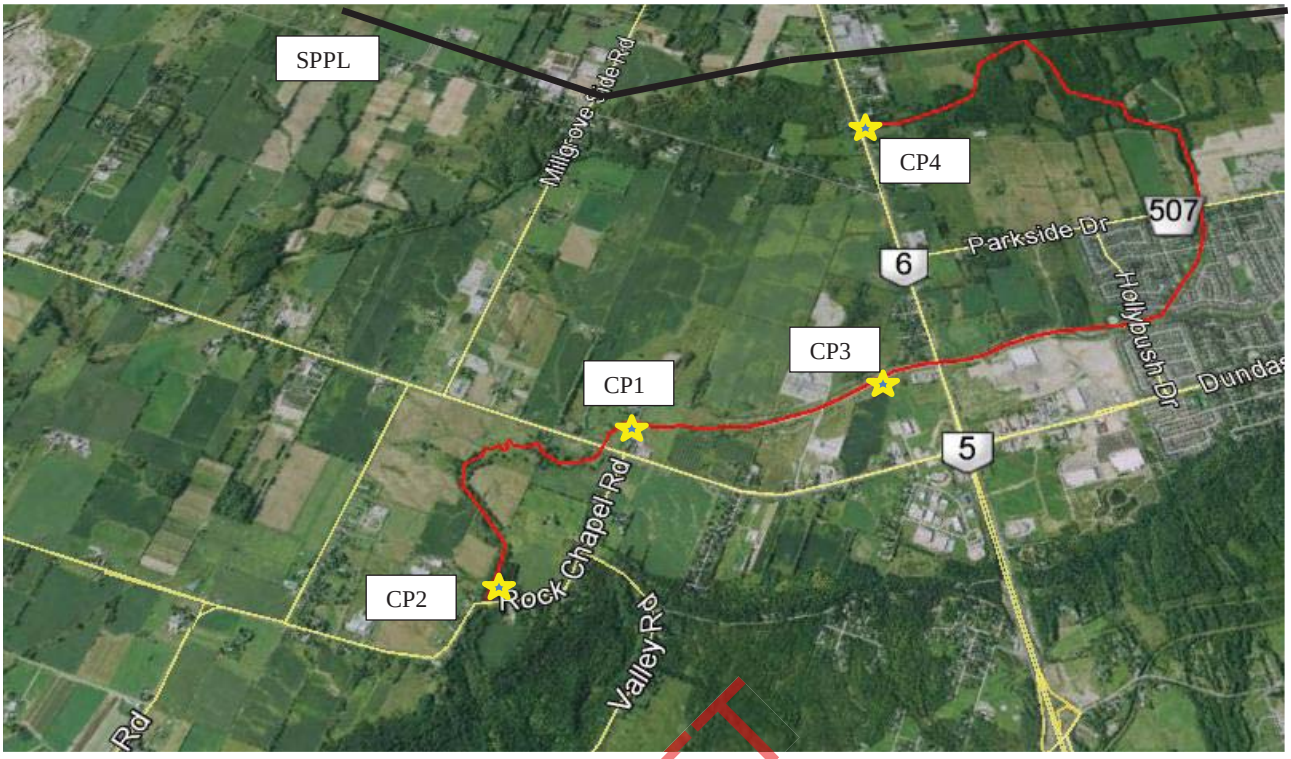
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Winter:	.5m/s	Avg. Width: Avg. Depth: Max. Width:	1m .2m 1.5m	Bed Material:	muck/silt

2. Potential environmental sensitivities:

Flows out of large wetland into smaller wetland on east side of Hwy 6.
Note: Go to CP1 first although it is before CP2 as large falls start 20m after CP1.



Rock Chapel & Borer`s Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Rock Chapel Creek / Borer's Creek Watercourse Crossing # Map 133 - Mile 130.8		
	Control Point		
	CP1	CP2	CP3
Access/ Location	CP1 is before CP2 because of Borer's Falls. 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 coarses.**	Access on west side of Rock Chapel Rd. Pull off road on east side of bridge with the creek approx. 4m to the west.	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.
Site	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.	Control at bridge. There is little anchorage except the bridge itself. Water is very fast. 2m/s, .5m deep, 3m wide. **Use extreme caution as there is a 30m waterfall 40m downstream.**	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.
Containment Method	Booms Skimmers Logs or planks to block spillgate	Booms Skimmers	Booms Foam Dispersants Skimmers
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Rock Chapel Creek / Borer's Creek Watercourse Crossing # Map 133 - Mile 130.8		
	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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Page for drawing of Map 137 named: SPPL 15

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing #: Map 137 - Mile 135.3
	Location: Burlington

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

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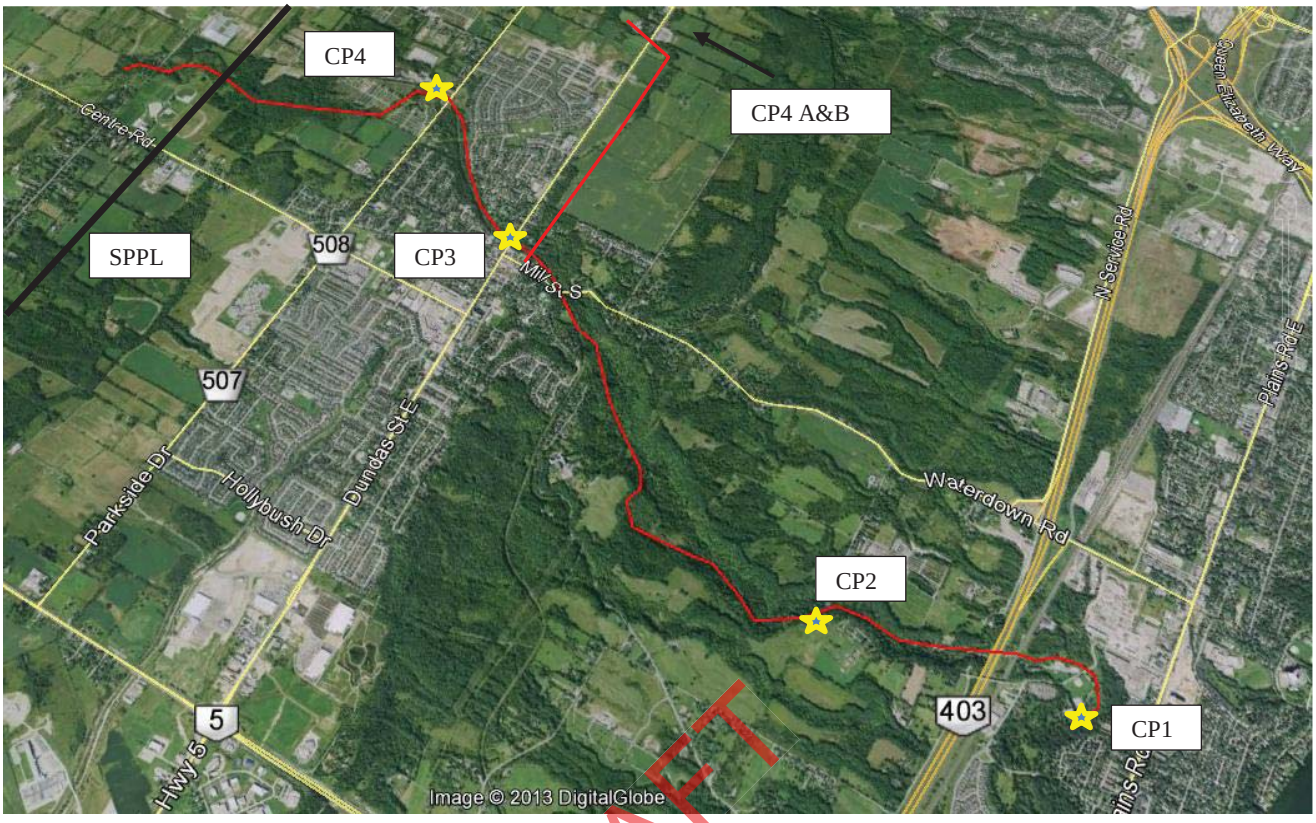
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**
Summer:	.5m/s	Avg. Width: Avg. Depth: Max. Width:	4m .2m	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 Acadamy south of Waterdown backs onto the creek.



Grindstone Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing # Map 137 - Mile 135.3	

	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 unchorage	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing # Map 137 - Mile 135.3		
	Control Point		
	CP4	CP5	CP6
Access/ Location	Access on north side of Parkside Dr. - can get vechicle 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		

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Grindstone Creek Tributaries Watercourse Crossing # Map 137 - Mile 137
	Location Burlington

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

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1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Summer:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	1m .1m 1.5m	Bed Material:	rock/rubble

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 Acadamy south of Waterdown backs onto the creek.

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Tributaries Watercourse Crossing # Map 137 - Mile 137		
	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Tributaries Watercourse Crossing # Map 137-Mile 137	

	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 ease 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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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name	Bronte Creek (Twelve Mile Creek)
	Watercourse Crossing #	Map 142-Mile 140

See Section 09-1606 Pipeline Spill Response Tactics-Bronte Creek for detailed plans

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Sixteen Mile Creek and East Sixteen Mile Creek Watercourse Crossing # Map 147-Mile 144

See Section 09-1607 Pipeline Spill Response Tactics- 16 Mile Creek for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Joshua's Creek Watercourse Crossing #: Map 163-Mile 148.2 Location: Oakville

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

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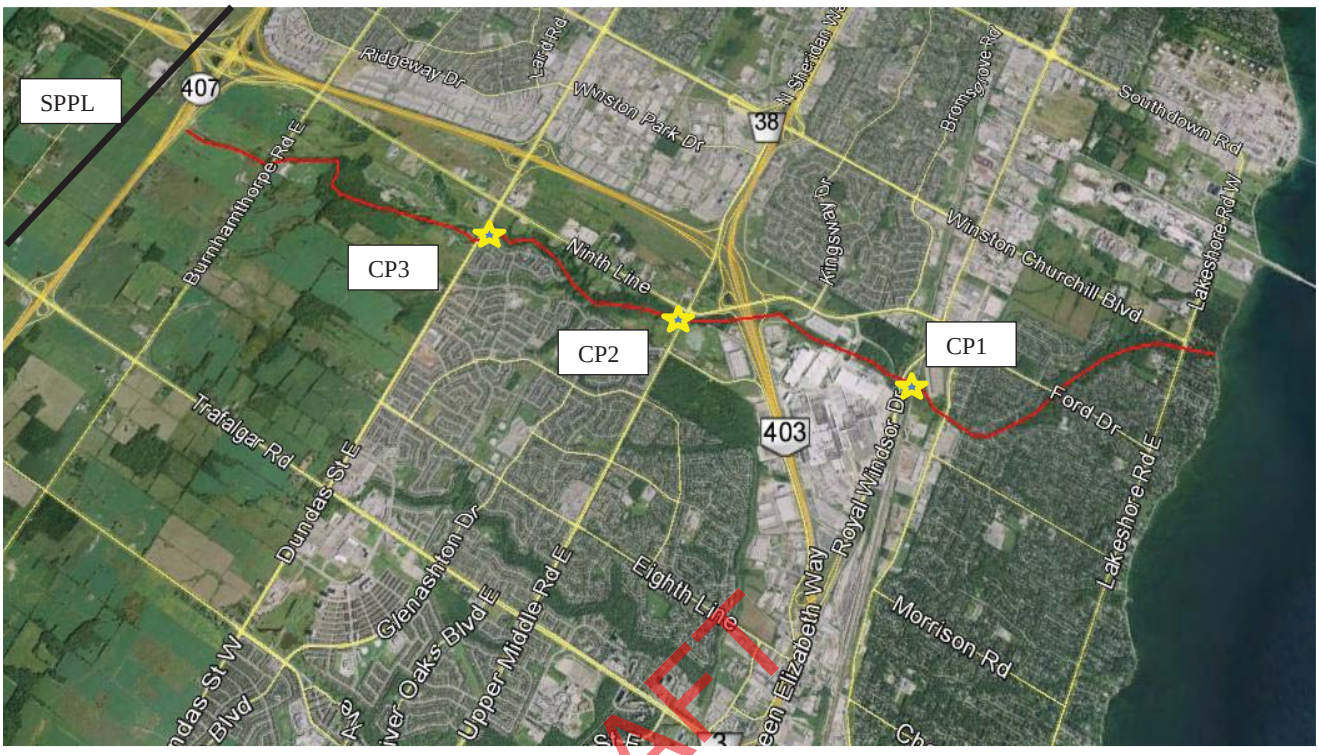
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	2m .2m 3-4m	Bed Material:	silty stone

2. Potential environmental sensitivities:

Creek runs through farmlands. Bisects 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.



Joshua`s Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Joshua's Creek Watercourse Crossing # Map 163-Mile 148.2	

	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek (Tributary of Credit River) Watercourse Crossing #: Map 163-Mile 149.2 Location: Mississauga

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	

DRAFT

1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	1.5m .2m 10m	Bed Material:	Silt

2. Potential environmental sensitivities:

Highly urbanized area.

Major portion of creek is buried.



Loyalist Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek Watercourse Crossing # Map 163 - Mile 149.2	

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek Watercourse Crossing # Map 163 - Mile 149.2	

	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		

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Sawmill Creek Watercourse Crossing # Map 163 - Mile 150.8
	Location Mississauga

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	

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1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	1m .02m 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.



Sawmill Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**		Watercourse Name: Sawmill Creek Watercourse Crossing # Map 163 - Mile 150.8

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Sawmill Creek Watercourse Crossing # Map 163-Mile 150.8	

	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	

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Mullet Creek Watercourse Crossing # Map 163 - Mile 152.3
	Location Mississuaga

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	

DRAFT

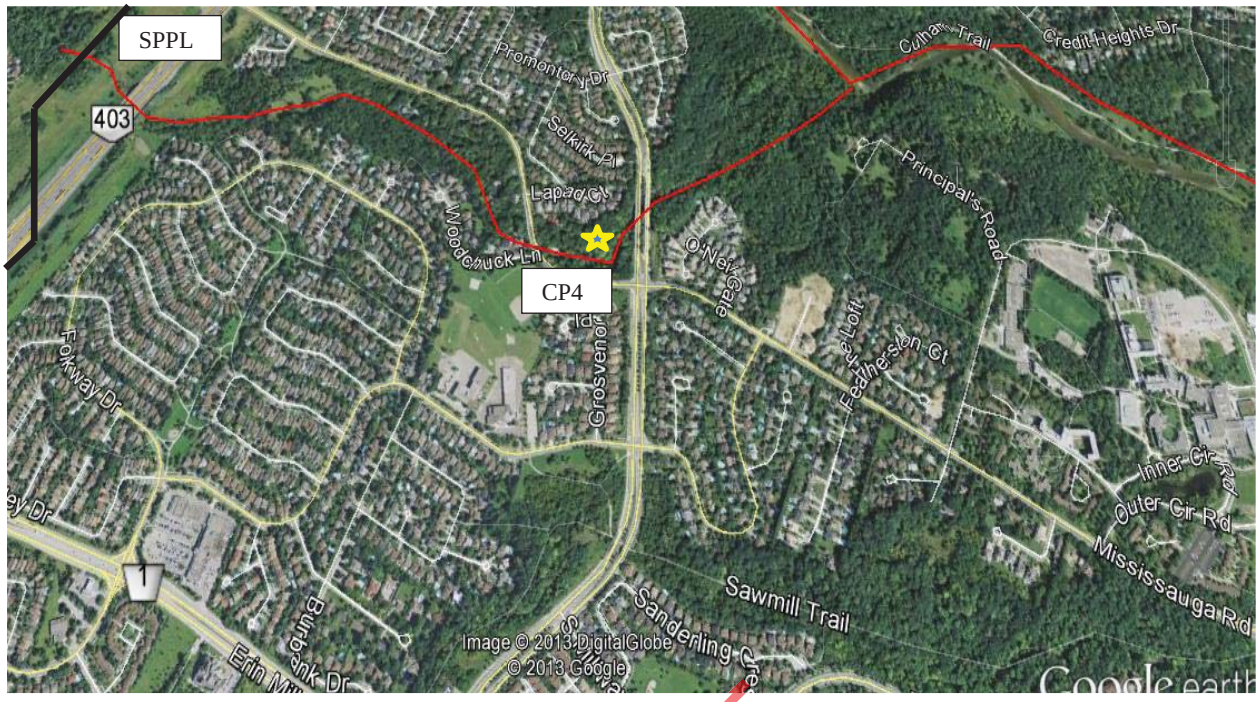
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	2m .2m 10m	Bed Material:	silt stone

2. Potential Environmental Sensitivities:

Urbanized. Mature ravine woodlands.

Joins Credit River in Promentory Woods.



Mullet Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mullet Creek Watercourse Crossing # Map 163 - Mile 152.3

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Credit River
	Watercourse Crossing #	Map 163-Mile 152.5
	Location	Mississauga

See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Tributary to Credit River Watercourse Crossing # Map 163 - Mile 152.7
	Location Mississauga

See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans

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SPPL - A8.004

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155 Location: Mississauga

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	

DRAFT

1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	2m .02m 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.



Mary Fix Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155		
	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	- Absorbants - Vacuum pump		
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Cooksville Creek Watercourse Crossing # Map 163 - Mile 155.5

See Section 09-1608 Pipeline Spill Response Tactics-Cooksville Creek for detailed plans

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Cooksville Creek Tributary Watercourse Crossing # Map 163 - Mile 156

See Section 09-1608 Pipeline Spill Response Tactics-Cooksville Creek for detailed plan

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Little Etobicoke Creek Watercourse Crossing # Map 163 - Mile 157.5
	Location Etobicoke

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

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1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	3m .5m 4m	Bed Material:	silt/gravel

2. Potential Environmental Sensitivities:

Flows through highly industrialized area

Flows through the small urban parks of Rathwood, Applewood Hills and Willow Creek.



Little Etobicoke Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Little Etobicoke Creek Watercourse Crossing # Map 163 - Mile 157.5	

	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		- south side - small barricade - 100m down before first bend - 3m wide - .5m deep	- small pool north side - 4m wide - .4m deep
Containment Method		- Absorbants - vacuum pump	- Absorbants - vacuum pump
Distance to Control Point		100m	20m

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Etobicoke Creek Watercourse Crossing # Map 163 - Mile 158.8
	Location Etobicoke

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See Section 09-1604 High Water Action Plan & Pipeline Spill Response Tactics-Etobicoke Creek for detailed plans

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This page for drawing of Map 170A named: SPPL 19

This page for drawing of Map 170B named: SPPL 20

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name Mimico Creek Watercourse Crossing # Map 170-Mile 162.2

See Section 09-1609 Pipeline Spill Response Tactics- Mimico Creek for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Humber River / Emery Creek Watercourse Crossing # Map 170 - Mile 166
	Location Etobicoke

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See Section 09-1605 High Water Action Plan & Pipeline Spill Response Tactics- Humber River for detailed plans

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169
	Location: Etobicoke

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

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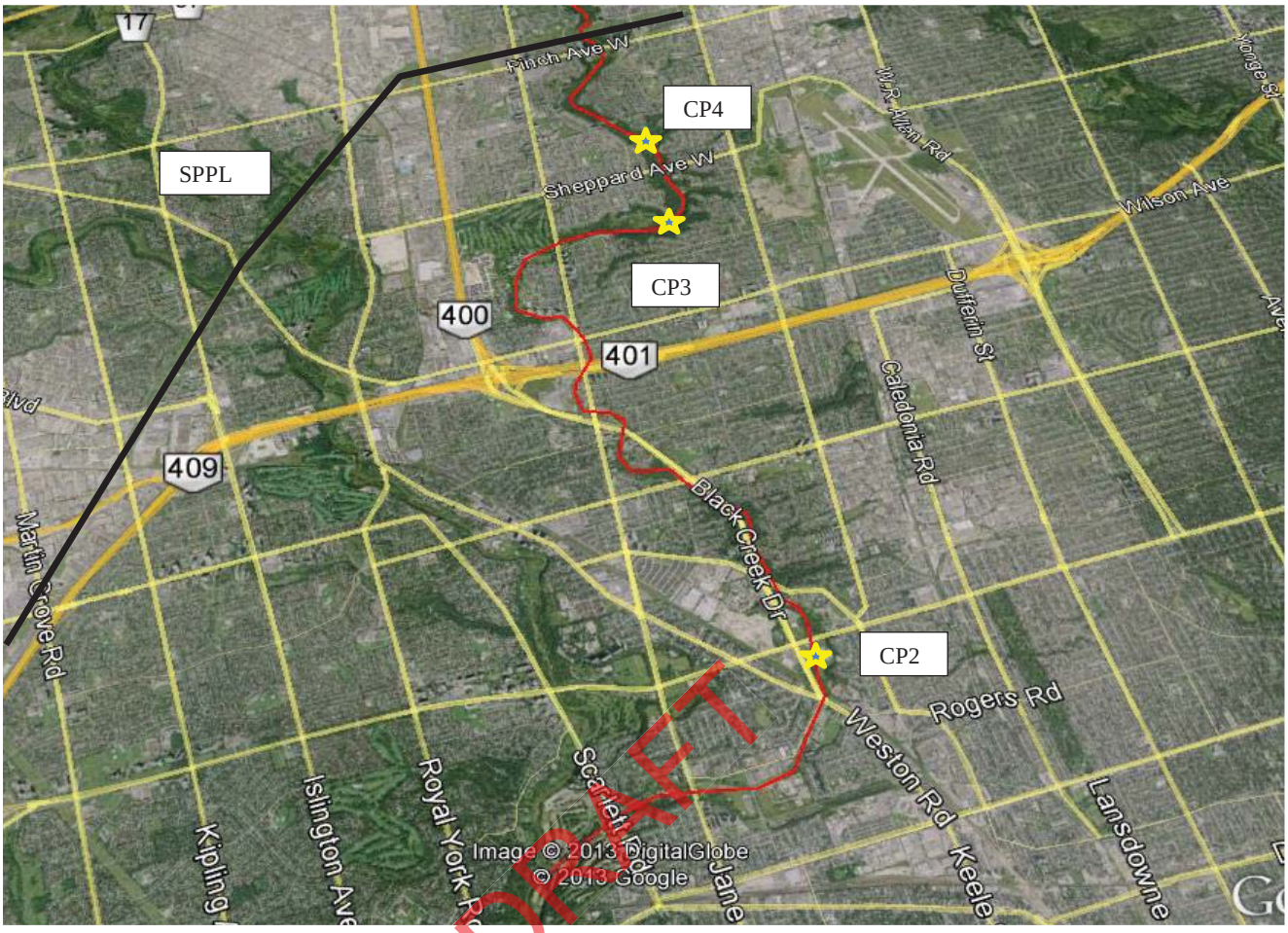
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	4m .2m 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.
Bisects 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.



Black Creek Control Points

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169	

	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 Eglington 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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169

	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		

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ROC3535c Attachment - Spill Prevention and Response Plan with Comments

Waterdown to Finch Project

Spill Prevention and Response Plan

Imperial

Esso Mobil

EM Document No.:
ONT-WF-SPPL-UP-RP-0006

UPI Doc Number:
24255-598-3RT-10013

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ACRONYMS AND ABBREVIATIONS

CEPA	*Canadian Environmental Protection Act*
EI	Environmental Inspector
EPA	Ontario *Environmental Protection Act*
EPP	Environmental Protection Plan
EPC	Engineering, Procurement and Construction Management Contractor
MECP	Ministry of Environment, Conservation and Parks
NFPA	National Fire Protection Association
HDB	Horizontal directional boring
HDD	Horizontal directional drilling
QP	Qualified Person
SAC	Spills Action Centre
SPPL	Sarnia products pipeline
UFC	Unified Facilities Criteria
UPI	Universal Pegasus International

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1. OVERVIEW AND PURPOSE

As part of the Waterdown to Finch Project Environmental Protection Plan ("EPP"), this Spill Prevention and Response Plan has been developed to provide best practices for the Contractor to implement during and construction activities. It provides guidance on spill prevention, contingency planning, and reporting practices for the timely and effective prevention and response to potential inadvertent, construction-related releases to land and surface water. This Spill Prevention and Response Plan delineates provisions for the inadvertent release of both non-hazardous and potentially hazardous material (e.g., certain lubricating oils, drilling wastes).

The guidelines included in this Spill Prevention and Response Plan will be followed to reduce the potential for a spill to land or surface water and thereby protect terrestrial, groundwater and surface water resources. Performance objectives for the management of potential substance release have been included in this Spill Prevention and Response Plan that consider the Project's risks and compliance obligations, including:

- Planning and prevention - preventing the inadvertent release of materials that may have a deleterious effect on the terrestrial and aquatic environments;
- Spill management - responding with appropriate measures in a timely manner to an inadvertent release; and
- Spill notification and reporting - providing timely notifications and reports to key project personnel and regulatory agents.

All employees, contractors and consultants will abide by all federal, provincial and local requirements for disposal and release reporting requirements for all products and waste materials that are potentially hazardous to human health and the environment.

Once in operation, the pipeline will be included in Imperial's current operational plans and procedures for the SPPL and is not within the scope of this plan. This includes Imperial's Emergency Response Plan that will be implemented in response to the unlikely event of a pipeline leak during operation.

2. REGULATORY CRITERIA

The interception and cleanup of spills must comply with provisions in the *Environmental Protection Act*, R.S.O. 1990 ("EPA"), specifically regulation 224/07 which outlines regulation for Spill Prevention and Contingency Plans and regulation 675/98 and 225/07 which outline the Classification and Exemption of Spills and Reporting of Discharges. Under Ontario Reg. 675/98, in the event of an inadvertent spill, the Spills Action Centre ("SAC") must be notified in a timely manner.

The Contaminated Materials and Management and Handling Plan will be implemented according to the requirements of the Ministry of Environment, Conservation and Parks ("MECP").

3. ROLES AND RESPONSIBILITIES

3.1 Proponent

Imperial Oil Limited is the owner of the Project and aside from external regulatory reporting, will delegate the implementation of this Spill Prevention and Response Plan to the Engineering, Procurement and Construction Contractor ("EPC").

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Imperial is responsible for all regulatory and external reporting associated with the Spill Prevention and Response plan and in accordance with permits and authorizations.

3.2 Engineering, Procurement and Construction Contractor

The EPC is responsible for the development, design and supervision of the implementation of the construction Spill Prevention and Response Plan, including:

- Leading the development of the Spill Prevention and Response Plan.
- Selecting and designing Spill Prevention and Response measures that are best suited for the site-specific environmental conditions.
- Reviewing and approving on-site design modifications.
- Developing and implementing contingency plans for addressing Spill Prevention and Response controls that are not effectively or successfully implemented.
- Overseeing inspection of Spill Prevention and Response controls.

3.3 Authorized Personnel

The Contractor will assign Authorized Personnel who will be designated to handle fuel, lubricants or other regulated substances. Authorized personnel will be familiar with the requirements of the Spill Prevention and Response Plan.

3.4 Contractor

The EPC will assign a construction Contractor who is responsible for following the Spill Prevention and Response Plan including:

- Installing the Spill Prevention and Response Plan measures according to specifications.
- Inspecting, monitoring, and maintaining Spill Prevention and Response Plan measures.
- Personnel shall notify the crew foreman or Environmental Inspector immediately of any spill of a petroleum product or hazardous liquid, regardless of volume.
- Following spill prevention, notifications and reporting to Imperial.

3.5 Environmental Inspector

The EPC will assign an Environmental Inspector (“EI”) who will be responsible for inspection and monitoring of the activities and mitigation measures outlined in the Spill Prevention and Response Plan including:

- Understanding the Spill Prevention and Response Plan and its implementation.
- Inspecting Spill Prevention and Response measures on a regular basis and after rainfall/snowmelt events.
- Monitoring compliance with the provisions of the Spill Prevention and Response Plan.
- Implementing contingency measures if the prescribed Spill Prevention and Response Plans are not effective.
- Confirm appropriate agency notifications are made (notification to be completed by Imperial), spill resources are allocated, and clean-up is accomplished in accordance with applicable agency requirements.
- Documenting all site inspections and corrective actions.

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3.6 Subcontractor(s)

If the Contractor or EI determines that a spill is beyond the scope of on-site equipment and personnel, the Contractor will assign an emergency response Subcontractor to contain and/or clean up the spill.

The Contractor or Subcontractor will retain a Qualified Person ("QP"), as defined in Ontario Regulation 153/04 (as amended) and licensed to practice in the Province of Ontario, to review, direct and manage all activities related to soil management (contaminated, non-contaminated, excess soil etc.) and soil importation activities during the construction activities of the Project.

The Subcontractor will assist the Contractor and EI to monitor containment procedures to ensure that the actions are consistent with the requirements of this Spill Prevention and Response Plan.

4. PLANNING AND PREVENTION

This section summarizes minimum standards for handling and storing regulated substances and cleaning up spills. Potential sources of construction-related spills include machinery and equipment failure, fuel handling, transfer accidents and storage tank leaks. The Contractor will be responsible for implementing, at a minimum, the following planning and prevention measures (Table 4-1).

Table 4-1: Spill Planning and Prevention Measures

Activity/ Feature	General Spill Prevention Measures
Training	1. Train Contractors and all involved on-site staff on the Spill Prevention and Response Plan, implementation, prevention, use of emergency kit and reporting for both hazardous materials and spill response. 2. Include specific instructions regarding applicable notifications and appropriate response actions to be taken in the event of a release in on-site staff training. 3. Contractor employees will be briefed on procedures to respond to a pipeline spill (e.g. damage to a third party adjacent in-service pipeline) during mandatory safety and environment training to be provided by the EPC.
Planning	4. Temporary workspaces to be assessed prior to use to identify suitable locations for long term vehicle parking, refueling stations, and areas for mechanical work and signage provided to illustrate where these activities are to take place. 5. Spill prevention equipment (spill kits, drip pans, etc.) to be strategically located at each site.
Spill kits and materials	6. Maintain spill kits to contain a sufficient quantity of absorbent and barrier materials to adequately contain and recover foreseeable spills. These kits may include, but are not limited to absorbent pads, straw bales, absorbent clay, sawdust, floor-drying agents, spill containment barriers, plastic sheeting, skimmer pumps, and holding tanks. This equipment will be located near fuel storage areas and other locations as necessary to be readily available. 7. Maintain, clearly label and have easily visible the appropriate release containment (spill kits) and recovery equipment and materials at all work sites. 8. Contractor to train all staff with the locations of the spill control equipment and materials and have readily accessible during construction activity. 9. Carry materials adequate to control foreseeable spills in all fueling vehicles, and where necessary, service vehicles. Such material may include but not be limited to absorbent pads, commercial absorbent material, plastic bags with ties, and shovels.

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Activity/ Feature	General Spill Prevention Measures
Transport, Storage and Handling of Fuels/ Hazardous Liquids	10. Only employ Authorized Personnel to transport, store, and handle fuels / hazardous liquids. 11. Travel of fuel trucks transporting fuel to on-site construction equipment occur only on access roads approved by the EI. 12. Maintain all equipment in proper running order to prevent leaking or spilling of potentially hazardous or toxic products. This includes hydraulic fluid, diesel, gasoline and other petroleum products. 13. Store all hazardous materials, chemicals, fuels and lubricating oils more than 30 m from any wetlands, streams and waterbodies. 14. Do not park equipment overnight (including but not limited to light plants, generators, pumps, and machinery) within 30 m of a wetland or waterbody unless secondary containment provisions have been implemented and approved by the EI in advance. 15. Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water (e.g., at a distance of greater than 30 m from top of bank). 16. Store fuel in contractor yards only or as approved by the EI. 17. Equip all fuel nozzles with functional automatic shut-offs 18. Maintain signage at and adjacent to fuel storage areas indicating “Fuel Storage Area – No smoking within 15 meters.” 19. Maintain fire extinguishers in suitable locations according to regulatory requirements and specifications. 20. Keep tools and materials on-site to stop leaks. Such equipment may include, but not be limited to, plugs of various sizes, 3M tank patches, a hammer, assorted sizes of metal screws with rubber washers, a screwdriver, and plastic tape. 21. Store fuels, lubricants, waste oil, and any other regulated substances in aboveground tanks only. 22. Conform to all applicable industry codes for storage tanks and containers (e.g., Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations under the *Canadian Environmental Protection Act* [“CEPA”]). 23. Utilize a suitable secondary containment structure at each fuel storage site. Line these structures with suitable plastic sheeting; provide a minimum containment volume equal to 150 percent of the volume of the largest storage vessel. 24. Do not have drains in the secondary containment areas. Precipitation may be drawn off as necessary. Discharge any accumulated water if no spillage has occurred in the secondary containment structure. Pump any accumulated waste into drum storage for disposal if spillage has occurred in the structure. 25. Make all efforts to dispense fuel during the daylight hours. 26. Station personnel at both ends of the hose during fueling unless both ends are visible and are readily accessible by one person.
Directional Drilling/ Boring	27. Implement Inadvertent Returns during HDD Plan that includes measures to stop work, contain the drilling fluid/mud and prevent its further migration into the watercourse, and notify all applicable authorities. Prioritize clean-up activities relative to the risk of potential harm and dispose of drilling mud in a manner that prevents re-entry into the watercourse. Do not implement clean-up measures that result in greater damage to the banks and watercourse than from leaving the drilling mud in place.

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Activity/ Feature	General Spill Prevention Measures
Watercourses/ Wetlands	28. Contractor to store hazardous materials, chemicals, fuel and lubricating oils, and perform refuelling, maintenance, and lubricating activities more than 30 m from wetlands, streams, and waterbodies (including drainage ditches), and water supply wells. 29. While the setback for refueling, storage, and maintenance near wetlands and waterbodies is compulsory 30 m it may be unavoidable in certain instances due to site specific conditions or unique construction requirements (e.g., continuously operating pumps or equipment on barges). If this activity occurs within wetlands or near streams for refueling of continuously operating pumps, use secondary containment for these unique requirements. 30. Line secondary containment structures with suitable plastic sheeting, provide a containment volume of at least 150 percent of the storage vessel, and allow for at least one foot of freeboard. 31. Provide adequate lighting for these locations and activities.
Inspection and Monitoring	32. EI to monitor the Contractor's compliance with the Spill Prevention and Response Plan. 33. Notify the appropriate Spill Coordinator if an accidental spill arises, regardless of the size. 34. Notify key project personnel and regulatory agencies, per the Spill Notification and Reporting Procedures described in Table 3.

5. SPILL MANAGEMENT

The following response and management procedures will be followed immediately upon learning of any fuel, oil, hazardous material, sediment release, drilling mud or other regulated substance spill, or upon learning of conditions that will lead to an imminent spill (Table 5-1). Spills are defined as the release of a pollutant into the natural environment, from or out of a structure, vehicle or other container that is abnormal in quality or quantity in light of all of the circumstances.

Table 5-1: Spill Response and Management Procedures

Activity/ Feature	General Response and Management Measures
Immediate Spill Response	1. When a spill has occurred, the Contractor will immediately: a. Assess the safety hazards of the situation and remove sources of ignition, if safe to do so. b. Identify the product, stop the source and physically contain the spill as soon as safe to do so. c. Engage emergency services if required. d. Notify Imperial Oil Limited and the EI of the incident. e. Mobilize on-site personnel, equipment, and materials for containment and/or cleanup commensurate with the extent of the spill. f. Engage and assist the Emergency Response Subcontractor as needed and monitor containment procedures to ensure that the actions are consistent with the requirements of this Spill Prevention and Response Plan. g. Coordinate with Imperial to determine the need to evacuate spill sites to safeguard human health; and h. Delineate the release and containment area to avoid further disturbance in the area. 2. EI will complete the Spill Report Form (Appendix A) 3. Imperial Oil Limited will notify the applicable stakeholders

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Activity/ Feature	General Response and Management Measures
Spill Response – Fuel Truck	In addition to the Immediate Spill Response above, the Contractor will: 4. Pump the tanker dry (into appropriate containers or another tanker). 5. Remove the tanker from the site. 6. Recover the spilled product. 7. Clean-up the contaminated area with absorbent materials. 8. Dispose of sorbent pads, heavily contaminated soil and vegetation at an approved facility.
Spill Response - Adjacent to or into a Waterbody	In addition to the Immediate Spill Response above, the Contractor will: 9. Deploy booms, skimmers, sorbents, etc., if feasible, to contain and recover the spilled material from the waterbody. 10. Clean-up the contaminated area, including downstream shorelines. 11. Dispose of contaminated soil and vegetation at an approved facility.
Pipeline spill	12. Notify Imperial's Emergency Pipeline Control at 1-800-372-9597 (24-hours/day) as well as the Imperial Environmental Lead in the event of a suspected Imperial pipeline spill (or from an adjacent pipeline). Imperial Operations to implement the Operational Emergency Response Plan.
Cleanup, storage and disposal of contaminated materials	13. Determine clean-up options and appropriate methods to recover and dispose of potentially contaminated soil or vegetation at an approved facility. 14. Recover the released materials from the defined containment area using equipment suitable to the nature and extent of the release. 15. Cleanup the release and contaminated areas. Consultation with a qualified remediation specialist and/or Company Representative may be required. 16. Store and cover excavated soils on site with plastic sheeting in a bermed area to prevent and contain runoff if temporary storage is necessary. 17. Dispose of contaminated materials, and contaminated soils and vegetation at an approved facility in accordance with applicable provincial and federal regulations. 18. Use only licensed carriers to transport contaminated material from the site to a disposal facility. 19. For the storage and disposal of contaminated materials refer to the Waste Management Plan.

6. SPILL NOTIFICATION AND REPORTING

The following notification and reporting procedures will be taken immediately upon learning of any fuel, oil, hazardous material, sediment release, drilling mud or other regulated substance spill (Table 6-1).

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Table 6-1: Spill Notification and Reporting Procedures

Activity / Features	General Notification and Reporting Procedures
Internal notification	1. Contractor to notify Imperial and EI immediately of any spill of a petroleum product or hazardous liquid, regardless of volume. 2. Imperial to notify applicable stakeholders as required.
Internal reporting	3. Contractor to ensure all cleanup activities required by a jurisdictional agency are satisfactorily met and provide documentation to Imperial demonstrating this compliance. a. EI to complete a Spill Report Form (refer to Appendix A) within 24-hours of the occurrence of a spill, regardless of the size of the spill. Include a record of the report in the Project files per Ontario Regulation 675/98: b. Imperial to keep this record for two years after the spill for all Class V, VII, VIII, IX and XI spills. c. Imperial to keep this record for five years after the spill for all Class X (non-reportable) spills. 4. Contractor to complete any required follow up written reports, associated laboratory analysis, and other documentation as requested by the EI on a site specific basis.
External notifications	5. Imperial to report spills and discharges, per the Ontario EPA, to the MECP through the SAC at 1-800-268-6060. 6. Imperial to notify the appropriate federal, provincial and local agencies, Indigenous communities as well as additional parties or agencies. 7. Imperial to report the spill to the municipality in which the spill occurred. 8. Imperial to notify the landowner of the property on which the spill occurred. 9. All spills, regardless of volume, that enter directly or indirectly into a sanitary or storm sewer or rural ditch must be reported to the City of Hamilton, City of Toronto, City of Burlington, City of Mississauga, the Region of Halton, Region of Peel, Town of Milton and the Town of Oakville. Phone numbers for all stakeholders are in Appendix B. Exemptions for municipal notifications will be reviewed on a case by case basis.

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7. REFERENCES

Government of Ontario. 1990 (updated 2019). Environmental Protection Act, R.S.O 1990, c. E. 19 Available online at https://www.ontario.ca/laws/statute/90e19. Accessed May 2019.

OEB (Ontario Energy Board). 2016. *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario*. 7th Edition, 2016.

MOE (Ministry of Environment). 2007.Guideline for Implementing Spill Prevention and Contingency Plans Regulatory Requirements (O.Reg.224/07). Available at https://archive.org/details/std01079161.ome/page/n7. Accessed May 2019.

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APPENDIX A SPILL REPORT FORM

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Spill Report Form

(The Contractor must complete this for any spill, regardless of size, and submit the form to the Imperial Representative within 24 hours of the occurrence)

Date of Spill: _____ Date of Spill Discovery: _____

Time of Spill: _____ Time of Spill Discovery: _____

Name and Title of Discoverer: _____

Type of material spilled and manufacturer's name: _____

Legal Description of spill location to the quarter section: _____

Directions from nearest community: _____

Estimated volume of spill: _____

Estimated duration of the release of the pollutant: _____

Weather conditions: _____

Topography and surface conditions of spill site: _____

Spill medium (pavement, sandy soil, water, etc.): _____

Proximity of spill to surface waters: _____

Did the spill reach a waterbody? _____ Yes _____ No

If so, was a sheen present? _____ Yes _____ No

Describe the causes and circumstances resulting in the spill: _____

Describe the extent of observed contamination, both horizontal and vertical (i.e., spill-stained soil in a 5-foot radius to a depth of 1 inch): _____

_____

Describe immediate spill control and/or cleanup methods used and implementation schedule:

_____

_____

Describe the method used to dispose of the pollutant and any part of the environment that was affected by the spill: _____

Current status of cleanup actions: _____

Any adverse effects observed as a result of the spill: _____

Name and Company for the following:

Construction Superintendent: _____

Spill Coordinator: _____

Imperial Representative: _____

Person Who Reported the Spill: _____

Environmental Inspector: _____

Form completed by: _____ Date: _____

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APPENDIX B SPILL REPORTING CONTACTS

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Table B-1: Spill Reporting Contacts

Agency	Notification Period	24-hour Reporting Hotline	Regulation/Code	Comments
Provincial Contacts				
Ministry of Environment, Conservation and Parks via Spills Action Centre	Immediately	1-800-268-6060	Ontario Reg 2675/98	Will include Technical Standards and Safety Authority notification, if applicable.
Municipal Contacts				
City of Hamilton	Contractor to confirm	1-905-540-5188	Ontario Reg 2675/98	Spill Reporting Hotline
City of Toronto	Contractor to confirm	1-416-325-3000 311 (within Toronto)	Ontario Reg 2675/98	Spill Reporting Hotline
City of Burlington	Contractor to confirm	1-905-333-6166	Ontario Reg 2675/98	City of Burlington Roads, Parks and Forestry Department
City of Mississauga	Contractor to confirm	1-905-615-3000	Ontario Reg 2675/98	24 hour dispatch
Region of Peel	Contractor to confirm	1-905-791-7800	Ontario Reg 2675/98	Spill Response Hotline
Town of Milton	Contractor to confirm	1-905-878-7252 311 (within Milton)	Ontario Reg 2675/98	Town of Milton
Town of Oakville	Contractor to confirm	1-905-845-6601 311 (within Oakville)	Ontario Reg 2675/98	Town of Oakville
Indigenous Community Contacts				
Haudenosaunee Development Institute	TBD	TBD		Haudenosaunee Confederacy Chiefs Council
Huron-Wendat Nation	TBD	TBD		
Mississaugas of the Credit First Nation	TBD	TBD		
Six Nations of the Grand River	TBD	TBD		
Conservation Authority Contacts				
Toronto Region Conservation Authority	Contractor to confirm	1-416-661-6600		Toronto Region Conservation Authority
Hamilton Region Conservation Authority	Contractor to confirm	1-905-825-6000		Hamilton Region Conservation Authority
Halton Region Conservation Authority	Contractor to confirm	1-905-825-6000		Spill Response Hotline
Credit Valley Conservation Authority	Contractor to confirm	1-905-670-1615		Credit Valley Conservation Authority

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TITLE **Imperial Facility - Emergency Response Plan**
SECTION 08: Specific Contingency Plans
SUBJECT 15: Spill - Low Vapour Pressure 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 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.

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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.

Incident : _____ Facility: _____ Date : _____

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	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 all 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	Isolate the leaking pipeline section by ensuring the appropriate main valves are closed, if safe to do so.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	6	Assess the situation using the "Disciplined Approach": a) Evaluate the extent of the spill b) Determine the need to stop all/or other operations including shutting down other pipelines in the same corridor, if applicable. c) 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) d) Determine the need to call the Facility ER Team (ERP-09-04: Appendices: Facility Specific «Contacts Lists») e) Evaluate the need for Municipal ER support. If required, call local Police, Fire Services and Public Works (ERP-09-04) f) Notify First Nations so they are able to stand up representatives to attend to protection of critical sites and provide guidance to responders. (ERP-09-04 to be updated with regional First Nations contact information) g) Decide on the action plan. Get Support, if required and Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»).		
	7	Evaluate effectiveness of the safety perimeter, using air-monitoring equipment (Lower Explosion Limit), if applicable		
	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.		
	11	Call the local Police for traffic and safety perimeter control and the Fire Dept. Services for vapour dispersion or suppression and fire prevention, if spilled product migrated off the right of way or if otherwise warranted and not already done. See ERP-09-04		

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Continue following steps if the spill has migrated to public or third party premises. If not, go directly to step #17.

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	12	Establish a Unified Command structure with Public Authorities as per ERP-01-05, ERP-02-01 and ERP-04-02, if not already done.		
	13	Notify IOL Public Affairs (ERP-06-02: Emergency Response Contacts and Resources: Other Imperial Emergency Response Resources).		
	14	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; a) Did spill/leak go into any city sewer systems (sanitary, rainwater or sanitary)? b) 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») c) Are vapours present in nearby businesses/residences? d) Did the spilled material reach the water table? e) Any drinking water wells within 1 km of the spill source? f) What response resources do you have? g) Decide on the action plan.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	15	Did hydrocarbon go into a city sewer system? If yes: a) Contact City Public Works (ERP-09-04 or dial "0") b) Obtain sewer plot plan from the City Public Works c) Determine safety perimeters using monitoring device (i.e. like LEL meters) in co-operation with City Public Works d) Have installed appropriate number of chimneys or explosion-proof fans at street manholes to discharge the vapours e) Verify if gasoline vapours are present in nearby residences and if so, request Police /Fire Dept to evacuate those residents f) Identify / Ensure no sources of ignition g) Block sewers downstream. Recover product with a vacuum truck and have sewer systems flushed starting upstream. If distillate, use the same steps even though there are much lesser risks associated with this type of product.		
	16	Did petroleum product reach the water table? If yes: a) Provide alternate source of drinking water to affected residents b) Involve a company Environmental Specialist c) Determine the perimeter by taking water samples and getting them analyzed using the services of a professional firm d) Transfer the follow-up activities with help from the Imperial (CFO) Business Management involved.		
	17	Is hydrocarbon present in a ditch, stream or river? If yes: a) Remove all sources of ignition b) If crude, check for H_2S c) Disperse the vapours with water fog d) Ask the Fire Dept Services to spray a blanket of hydrocarbon compatible foam, if hydrocarbon trapped and is felt appropriate e) Recover product with a vacuum truck. If distillate: a) Remove all sources of ignition b) Contain using a dam, boom or other means c) Recover with a vacuum truck.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	18	Identify any potential downwind exposures (i.e. flammable vapour cloud, liquid product movement, etc.). If necessary, utilize Police for any further remaining evacuations.		
	19	Refer to ERP-04-03: General Response Procedures: Response Principles and Key Tactics of this Plan for general product behaviors and response tactics.		
	20	Advise Fire Services to spray foam (hydrocarbon compatible foam such as AFFF or AFFF/ATC for alcohol type concentrate). If needed.		
	21	Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»), if not already done.		
	22	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 Other useful numbers can be found in ERP-06-03, or, in ERP-09-04 for Local Authorities: Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____		
	23	Determine the potential for additional releases, if safe to do so.		
	24	Use absorbents and/or other methods to contain the spilled product at the spill area(s).		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	25	Re-evaluate safety perimeter, using air monitoring equipment (such as LEL) and permit vehicle traffic only if appropriate.		
	26	Recover visible product in affected area(s), using appropriate transfer equipment or vacuum truck and use established safe operating procedures.		
	27	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.		
	28	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).		
	29	Decontaminate equipment and clothing, if applicable.		
	30	Resume normal operations when situation is re-assessed and only when all potential risks have been eliminated.		
	31	Conduct debriefing with Responders and on-site personnel prior to demobilization and document, per PDM 1-15-04.		

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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

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MAP #	PART OF MUNICIPALITY OF	MILE POST
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147	Oakville	140 - 147
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170	Etobicoke	162 - 170

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WATER CROSSINGS	MILE POST
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Page for drawing of Key Map 140 named: SPPL 12

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Barlow Creek Tributary of Fairchild Creek
	Watercourse Crossing #	Map 133-Mile 121.5
	Location	Troy (Town of Flamborough)

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	
First Nations:	Haudenosaunee Development Institute Contact: TBD Phone: TBD	Huron Wendat Nation Contact: TBD Phone: TBD
	Mississaugas of the Credit First Nation Contact: TBD Phone: TBD	Six Nations of the Grand River Contact: TBD Phone: TBD

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1. Watercourse characteristics at pipeline crossing:

Estimated velocity	**Dimensions**		**Other**
Fall	Avg. Width: Avg. Depth: Max. Width:	3m .02m 6m	Bed Material: Limestone / silt

2. Potential environmental sensitivities:

Agricultural area.

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek A tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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 Dsipersants Skimmers	Foam Booms Skimmers Dispersants	Booms Foams Dispersants
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing #: Map 133-Mile 122.7 Location: Town of Flamborough

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	

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1. Watercourse characteristics at pipeline crossing:

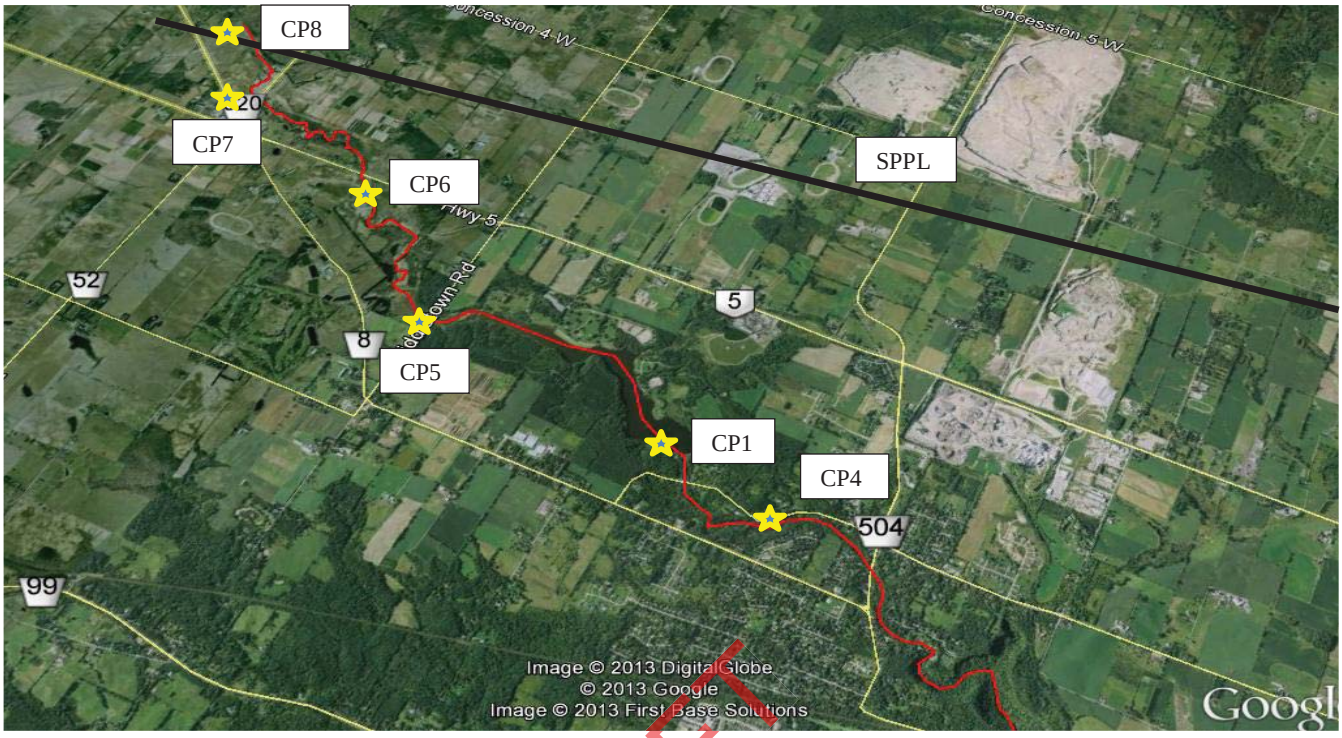
Estimated velocity		**Dimensions**		**Other**	
Fall:	1m/s	Avg. Width: Avg. Depth: Max. Width:	10m 1m 35m	Bed Material:	rock/rubble/ silt/sand

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.



Spencer Creek Control Points

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8
Harvest Rd
Rock Chapel Rd
Sydenham Rd
Creighton Rd
King St W
99
Olivet St
Osler Dr
CP3
Olympic Dr
York Rd
Coates Dr
CP2
Old Ancaster Rd
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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7	

	Control Point		
	CP1	CP2	CP3
Access/ Location	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. **Should try and stop oil before entering into Christies Conservation area, (swimming and picnic areas).** **Gate across driveway could be locked.**	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	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 **Boom 1000' to direct oil to one side of dam.**	Heavy booms Skimmers Dispersants	Heavy Booms Skimmers Dispersants
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7		
	Control Point		
	CP7	CP8	CP9
Access/ Location	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).**	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.	
Site	Control point is 15m east of bridge at meander running north. Good anchorage on both sides. 12m wide, 1m deep, .2m/s.	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.	
Containment Method	Skimmers Foam booms Dispersants	Skimmers Foam booms Dispersants	
Distance to Containment Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Spencer Creek Tributary A and B
	Watercourse Crossing #	Map 133-Mile 126.5
	Location	Town of Flamborough)

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	

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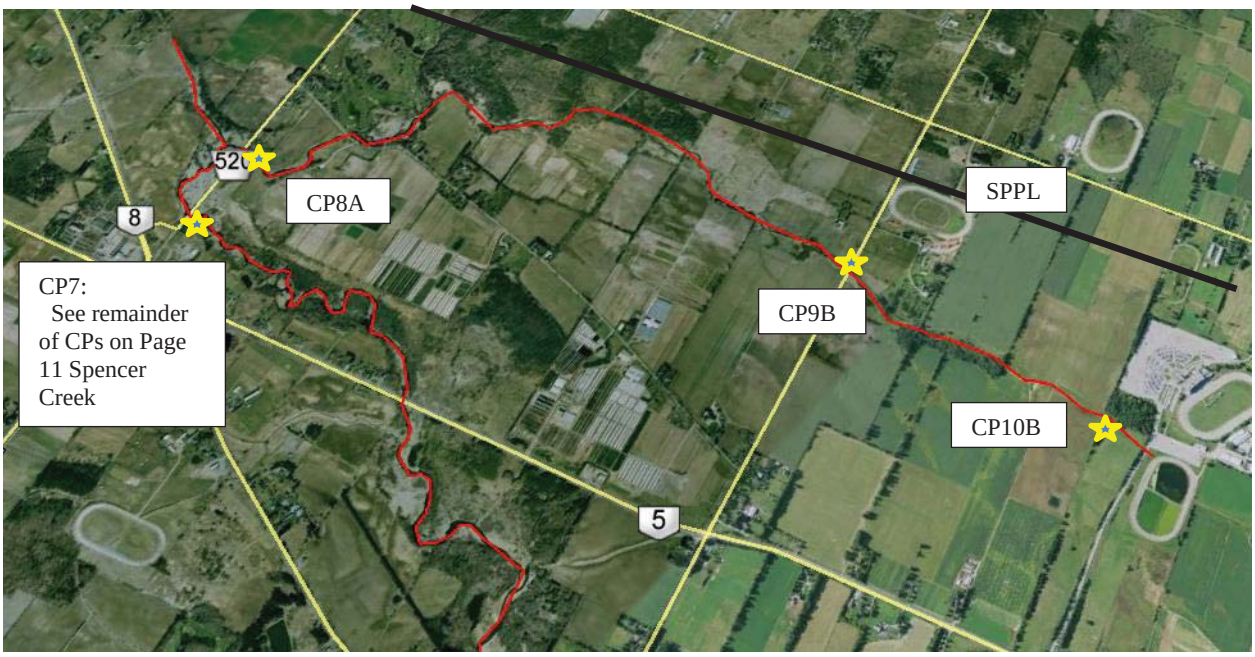
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.3m/s	Avg. Width: Avg. Depth: Max. Width:	5m .75m 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: 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.**



Spencer Creek Tributary A & B Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.6		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5		
	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, rivate 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 Disperants Skimmers
Distance to Containment Point			

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus tributary A Watercourse Crossing #: Map 133-Mile 130.7 Location: Town of Flamborough

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	

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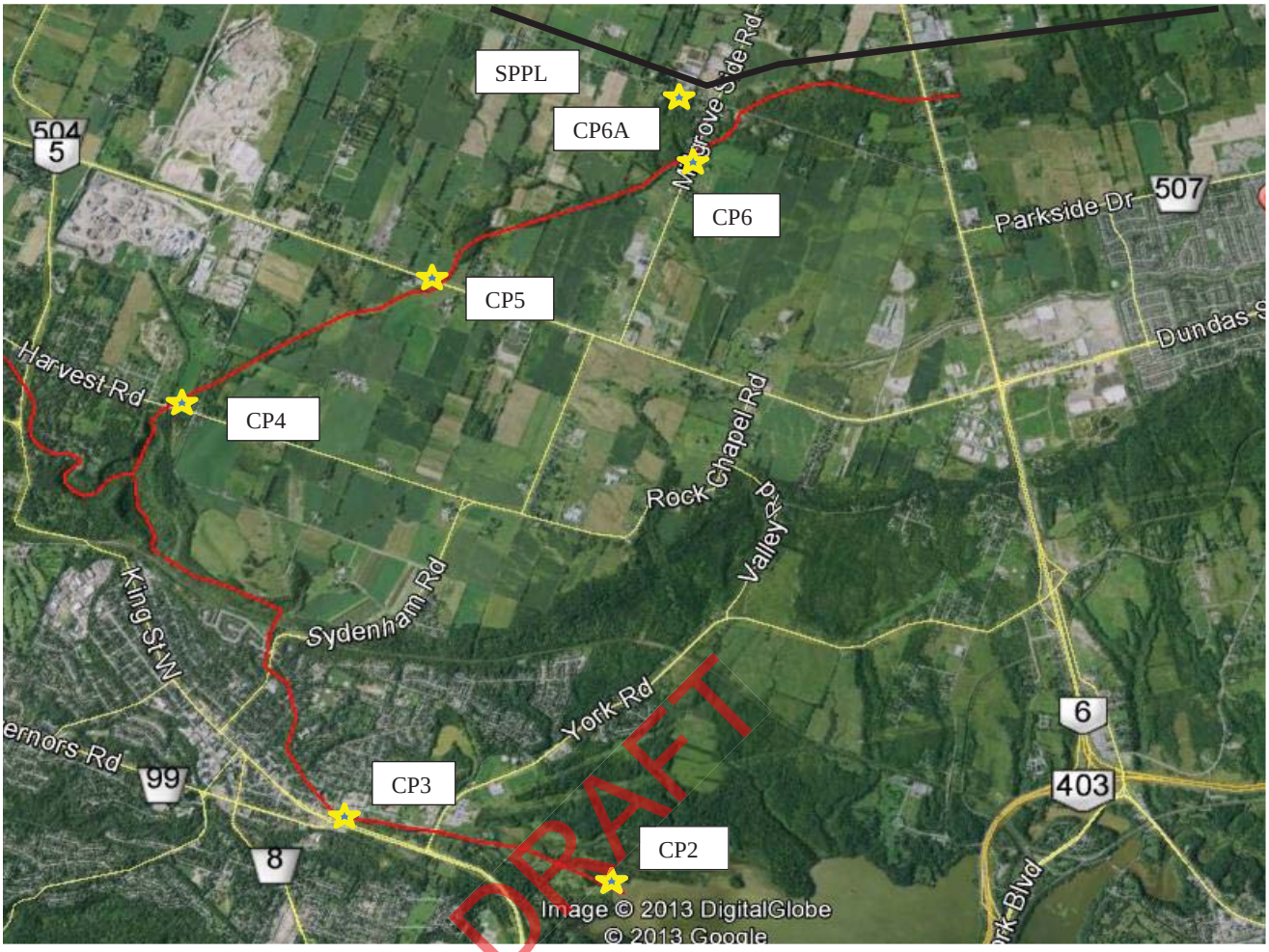
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.1m/s	Avg. Width: Avg. Depth: Max. Width:	2m .3m 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.



Logie's Creek Control Points

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Rock Chapel Creek / Borer's Creek
	Watercourse Crossing #	Map 133-Mile 130.8
	Location	Town of Flamborough

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	

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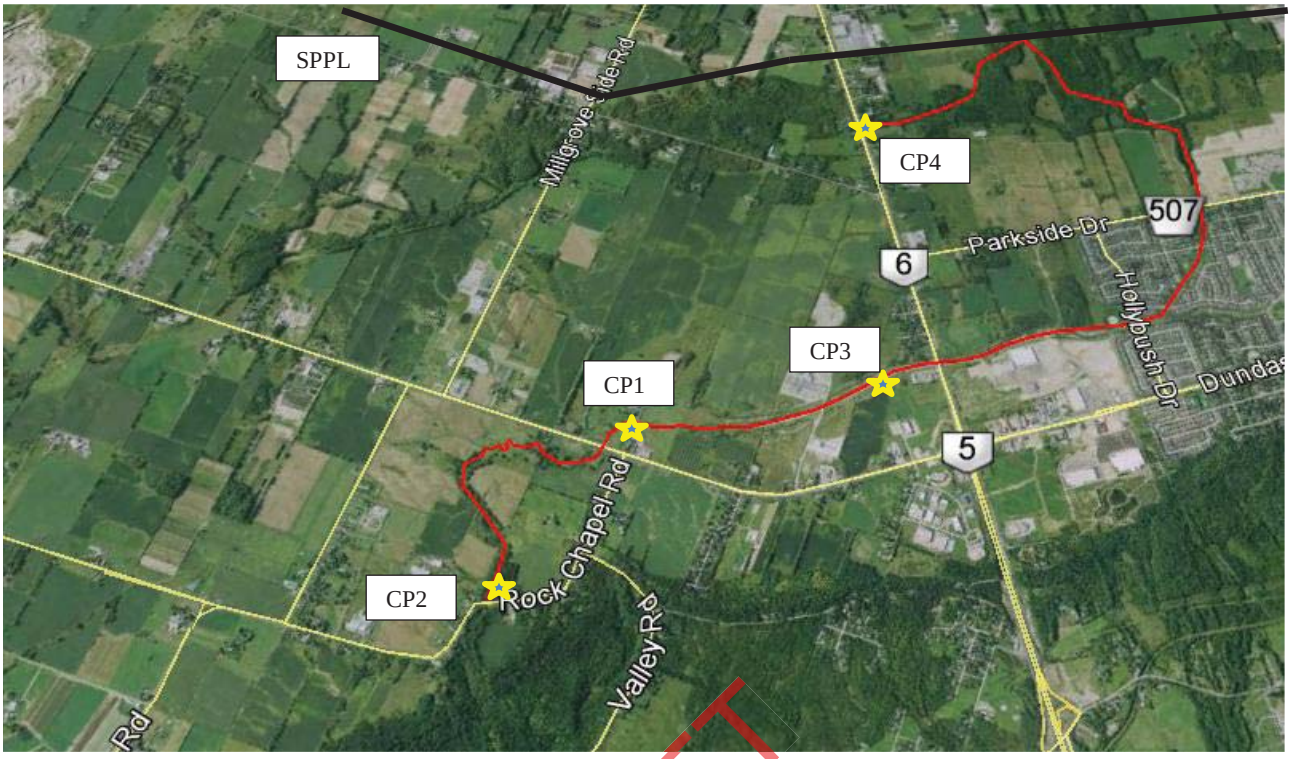
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Winter:	.5m/s	Avg. Width: Avg. Depth: Max. Width:	1m .2m 1.5m	Bed Material:	muck/silt

2. Potential environmental sensitivities:

Flows out of large wetland into smaller wetland on east side of Hwy 6.
Note: Go to CP1 first although it is before CP2 as large falls start 20m after CP1.



Rock Chapel & Borer`s Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Rock Chapel Creek / Borer's Creek Watercourse Crossing # Map 133 - Mile 130.8		
	Control Point		
	CP1	CP2	CP3
Access/ Location	CP1 is before CP2 because of Borer's Falls. 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 coarses.**	Access on west side of Rock Chapel Rd. Pull off road on east side of bridge with the creek approx. 4m to the west.	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.
Site	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.	Control at bridge. There is little anchorage except the bridge itself. Water is very fast. 2m/s, .5m deep, 3m wide. **Use extreme caution as there is a 30m waterfall 40m downstream.**	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.
Containment Method	Booms Skimmers Logs or planks to block spillgate	Booms Skimmers	Booms Foam Dispersants Skimmers
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Rock Chapel Creek / Borer's Creek Watercourse Crossing # Map 133 - Mile 130.8		
	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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Page for drawing of Map 137 named: SPPL 15

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing #: Map 137 - Mile 135.3
	Location: Burlington

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

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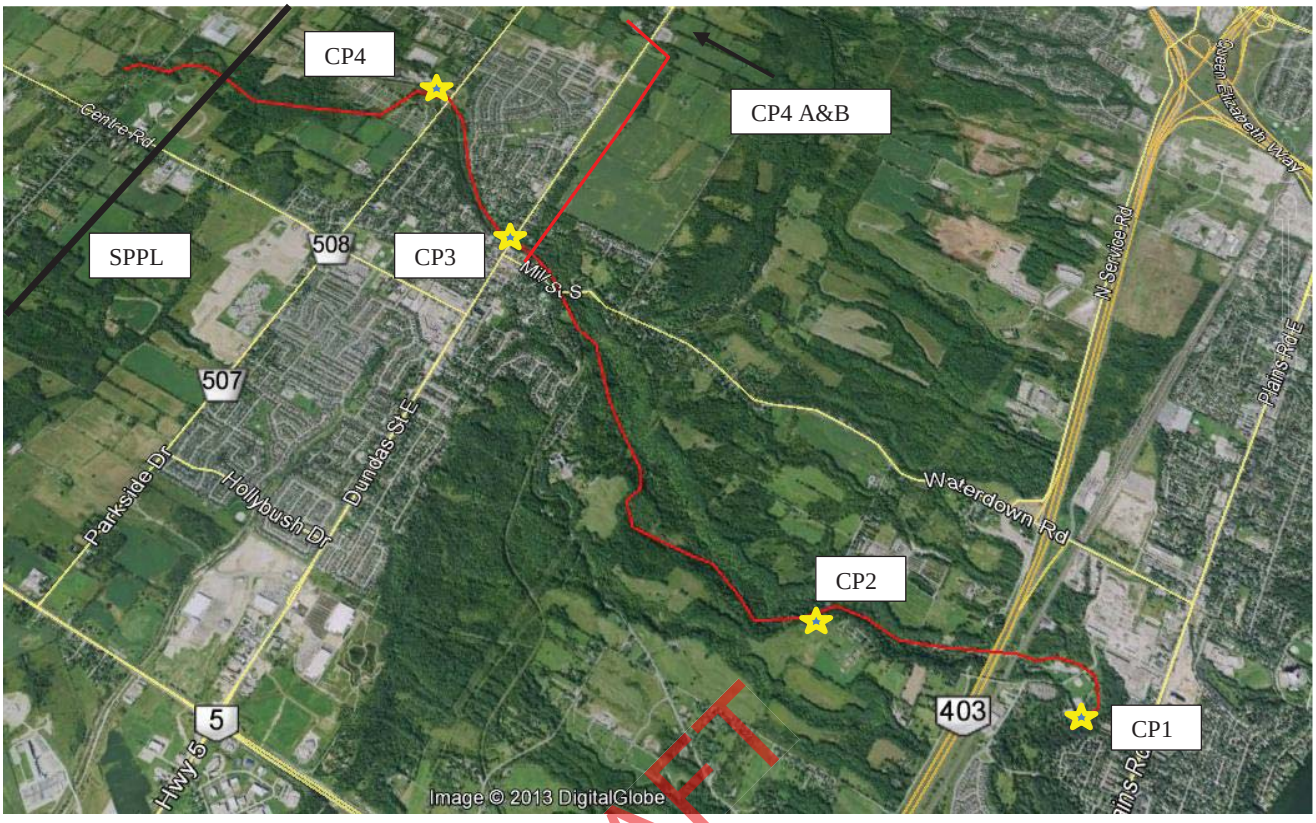
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**
Summer:	.5m/s	Avg. Width: Avg. Depth: Max. Width:	4m .2m	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 Acadamy south of Waterdown backs onto the creek.



Grindstone Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing # Map 137 - Mile 135.3	

	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 unchorage	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing # Map 137 - Mile 135.3		
	Control Point		
	CP4	CP5	CP6
Access/ Location	Access on north side of Parkside Dr. - can get vechicle 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		

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Grindstone Creek Tributaries Watercourse Crossing # Map 137 - Mile 137
	Location Burlington

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

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1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Summer:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	1m .1m 1.5m	Bed Material:	rock/rubble

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 Acadamy south of Waterdown backs onto the creek.

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Tributaries Watercourse Crossing # Map 137 - Mile 137		
	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Tributaries Watercourse Crossing # Map 137-Mile 137	

	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 ease 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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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name	Bronte Creek (Twelve Mile Creek)
	Watercourse Crossing #	Map 142-Mile 140

See Section 09-1606 Pipeline Spill Response Tactics-Bronte Creek for detailed plans

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Sixteen Mile Creek and East Sixteen Mile Creek Watercourse Crossing # Map 147-Mile 144

See Section 09-1607 Pipeline Spill Response Tactics- 16 Mile Creek for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Joshua's Creek Watercourse Crossing #: Map 163-Mile 148.2 Location: Oakville

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

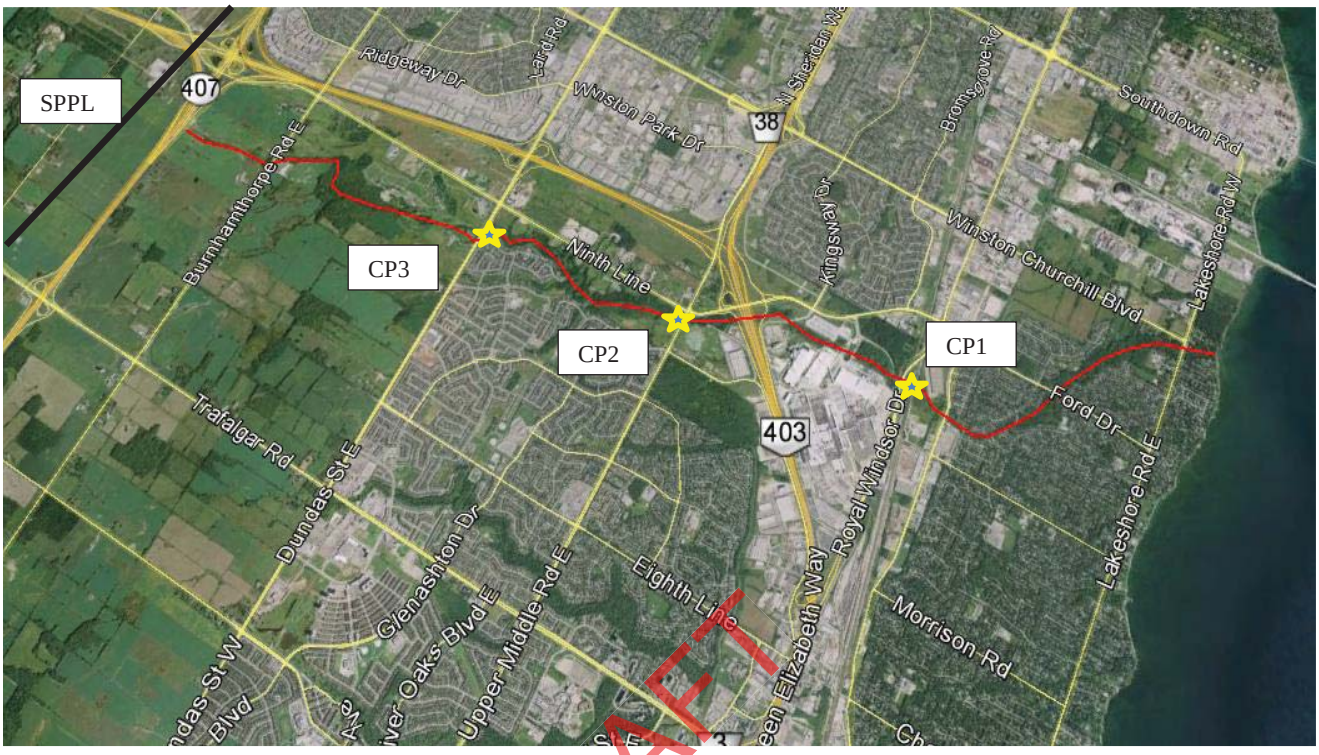
DRAFT

1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	2m .2m 3-4m	Bed Material:	silty stone

2. Potential environmental sensitivities:

Creek runs through farmlands. Bisects 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.



Joshua`s Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Joshua's Creek Watercourse Crossing # Map 163-Mile 148.2	

	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek (Tributary of Credit River) Watercourse Crossing #: Map 163-Mile 149.2 Location: Mississauga

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	

DRAFT

1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	1.5m .2m 10m	Bed Material:	Silt

2. Potential environmental sensitivities:

Highly urbanized area.

Major portion of creek is buried.



Loyalist Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek Watercourse Crossing # Map 163 - Mile 149.2	

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek Watercourse Crossing # Map 163 - Mile 149.2	

	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		

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Sawmill Creek Watercourse Crossing # Map 163 - Mile 150.8
	Location Mississauga

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	

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1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	1m .02m 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.



Sawmill Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**		Watercourse Name: Sawmill Creek Watercourse Crossing # Map 163 - Mile 150.8

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Sawmill Creek Watercourse Crossing # Map 163-Mile 150.8	

	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	

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Mullet Creek Watercourse Crossing # Map 163 - Mile 152.3
	Location Mississuaga

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	

DRAFT

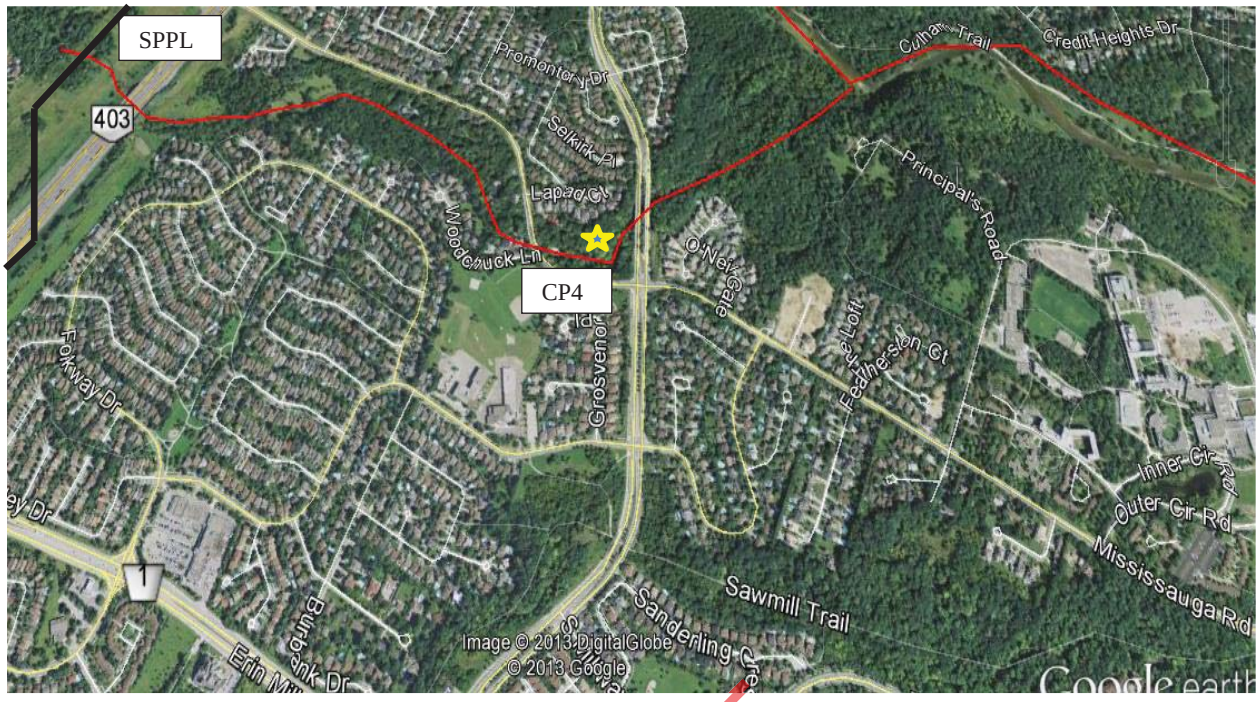
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	2m .2m 10m	Bed Material:	silt stone

2. Potential Environmental Sensitivities:

Urbanized. Mature ravine woodlands.

Joins Credit River in Promentory Woods.



Mullet Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mullet Creek Watercourse Crossing # Map 163 - Mile 152.3

	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

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Credit River
	Watercourse Crossing #	Map 163-Mile 152.5
	Location	Mississauga

See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Tributary to Credit River Watercourse Crossing # Map 163 - Mile 152.7
	Location Mississauga

See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans

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SPPL - A8.004

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155 Location: Mississauga

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	

DRAFT

1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	2m .02m 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.



Mary Fix Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155	

	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			

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155		
	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	- Absorbants - Vacuum pump		
Distance to Control Point			

DRAFT

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Cooksville Creek Watercourse Crossing # Map 163 - Mile 155.5

See Section 09-1608 Pipeline Spill Response Tactics-Cooksville Creek for detailed plans

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Cooksville Creek Tributary Watercourse Crossing # Map 163 - Mile 156

See Section 09-1608 Pipeline Spill Response Tactics-Cooksville Creek for detailed plan

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Little Etobicoke Creek Watercourse Crossing # Map 163 - Mile 157.5
	Location Etobicoke

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

DRAFT

1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	3m .5m 4m	Bed Material:	silt/gravel

2. Potential Environmental Sensitivities:

Flows through highly industrialized area

Flows through the small urban parks of Rathwood, Applewood Hills and Willow Creek.



Little Etobicoke Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Little Etobicoke Creek Watercourse Crossing # Map 163 - Mile 157.5	

	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		- south side - small barricade - 100m down before first bend - 3m wide - .5m deep	- small pool north side - 4m wide - .4m deep
Containment Method		- Absorbants - vacuum pump	- Absorbants - vacuum pump
Distance to Control Point		100m	20m

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Etobicoke Creek Watercourse Crossing # Map 163 - Mile 158.8
	Location Etobicoke

DRAFT

See Section 09-1604 High Water Action Plan & Pipeline Spill Response Tactics-Etobicoke Creek for detailed plans

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

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name Mimico Creek Watercourse Crossing # Map 170-Mile 162.2

See Section 09-1609 Pipeline Spill Response Tactics- Mimico Creek for detailed plans

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Humber River / Emery Creek Watercourse Crossing # Map 170 - Mile 166
	Location Etobicoke

DRAFT

See Section 09-1605 High Water Action Plan & Pipeline Spill Response Tactics- Humber River for detailed plans

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169
	Location: Etobicoke

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

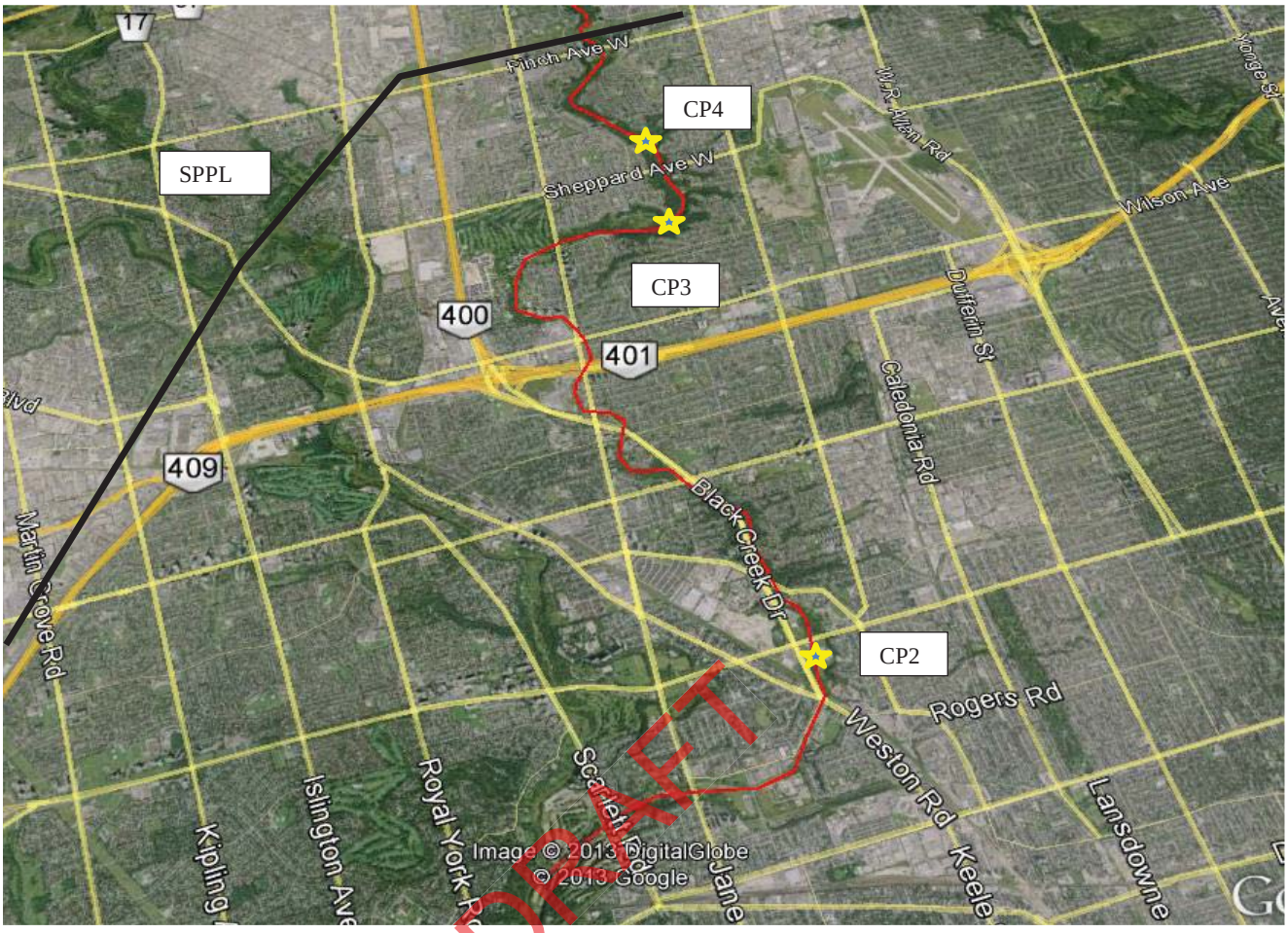
DRAFT

1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	4m .2m 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.
Bisects 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.



Black Creek Control Points

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169	

	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 Eglington 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

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169

	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		

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This page for drawing of Map 186 named: SPPL 24

DRAFT

Huron-Wendat Nation (HWN)

ROC3423a Letter (2 pages)

Imperial

July 26, 2019

Maxime Picard, Projects Coordinator - Ontario
Huron-Wendat Nation
maxime.picard@cnhw.qc.ca

Via email

Dear Maxime,

Re: Heat-Related Event and Proactive Steps to Address the Situation

This letter is to address a heat-related event that occurred during the Waterdown to Finch Stage 2 archaeology program on July 19, 2019 with a monitor and the recent issue on site regarding temperature and humidity readings and associated work expectations.

Imperial appreciates HWN's concerns, and wants to work with HWN to address them. Imperial takes these types of events very seriously.

Due to these concerns, Imperial has temporarily paused work on the Stage 2 archaeology program. Safety is our first priority. Work will recommence when an appropriate plan is in place to address the situation. Currently, we are working on initial ideas for the plan and will continue to engage HWN in a transparent manner as we develop solutions.

Our understanding of the July 19, 2019 heat event is that a monitor began to display heat-related symptoms. The monitor was moved to a shaded area and provided water. The affected monitor was taken to an emergency facility by another monitor. Concerns were raised about the reaction of Imperial's contractors to the event, and about ensuring steps are in place to prevent a future event. Also, concerns were raised about a respectful work environment.

To provide clarity, Imperial is the owner of the Waterdown to Finch Project. Given the size and the scope of the project, Imperial engages several contractors, who in turn engage several subcontractors, to assist with various parts of the project. Site contractors and subcontractors include UPI, ERM, TGH Safety, ASI, Past Recovery, and others. Given the number of parties involved, it is understandable that the concerns raised related to work supervision and authority, specifically as it relates to ensuring safe work on site in the heat, and Imperial is committed to further clarifying roles and responsibilities on site.

While we work to progress a plan, we highlight below certain principles that govern all site work, the existing safeguards in place, and the steps that may be taken to address the situation, and to ensure that it is not repeated.

1. Respectful Communication and Conduct: Imperial expects that all workers on site, regardless of their role or the circumstances, be courteous, respectful and mindful of their words and actions. *Going forward, if at any time you believe these expectations were not (or are not) being met, please advise Kelly Williams, Imperial Community Relations Officer, so that Imperial can ensure that events are investigated and appropriate action is taken.*

2. Working in Heat: The recent heat wave has created challenges. Imperial continues to work to proactively ensure that work is conducted in a safe, effective and efficient manner. All efforts will be made to mitigate the potential for heat illness in the field. In the event the humidex reaches a point where work cannot continue safely or has reached 42°C, all non-essential work will be stopped. Other steps are taken (i.e., slower pace of work, more frequent breaks, increased water

consumption) at humidex levels well below the stop work cut-off. This will be evaluated onsite in real-time conditions.

3. Support for Monitors: The health, safety and well-being of everyone on the site is a priority regardless of their role in the program. The expectation is that assistance and support will be provided to monitors (and everyone on site) in the event of a health and safety incident – including providing all necessary and available supports to ensure access to prompt and effective medical care.

4. Stop Work Orders: Everyone on site has the right to refuse work they think is unsafe. Furthermore, UPI, the prime contractor for the project and Imperial have the authority to stop work not related to safety. The subcontracting entities (ERM, Past Recovery and ASI) are to consult UPI or Imperial before stopping work for a reason *other than safety*. From a safety standpoint, ERM and TGH have the authority to stop all site work when related to safety.

A baseline expectation is that all contractors take steps to prevent safety incidents, including heat illness incidents. Furthermore, the expectation is that if an incident occurs, contractors and others assist in identifying and assessing next steps and ensure appropriate medical attention has been received, including transportation to an emergency facility, in the event of a health and safety event.

Imperial has reiterated these expectations to our contractors, including UPI, TGH Safety, ERM, Past Recovery and ASI, who have reaffirmed their commitment to ensuring a safe and respectful workplace. We will continue to engage our contractors to ensure these expectations are understood, and followed and the plan we are developing currently will help facilitate this.

Imperial is committed to a work environment that fosters mutual employee respect and positive working relationships. Conduct contrary to this is considered unacceptable in our workplace. It is Imperial's expectation that our contractors understand and respond in a way that is considerate and coordinated.

Imperial remains highly involved in the Waterdown to Finch Stage 2 archaeology field program to ensure project expectations are being met. As noted above, Imperial will continue to engage HWN in a transparent manner as we work to resolve these issues.

At any time, should you, or your monitors, have concerns related to the work environment, please bring these concerns to Kelly Williams, Imperial Community Relations Officer (kelly.williams@esso.ca or 519-328-8681).

Thank you for your time and attention.

Sincerely,



Martin Bates, Engineering Maintenance & Projects Manager
martin.bates@esso.ca

on behalf of

Ryan Klue
Waterdown to Finch Project Manager of Execution
587.476.3095
ryan.a.klue@exxonmobil.com

cc. Jessie Malone, Environment & Regulatory Advisor, jessie.malone@esso.ca
Kelly Williams, Community Relations Officer, kelly.williams@esso.ca

ROC3423b Email

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: July 26, 2019 2:28 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch-Imperial Oil Ltd-Correspondence
Attachments: Imperial WatFin Letter to HWN.pdf

From: Williams, Kelly /C
Sent: Friday, July 26, 2019 4:10 PM
To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>
Cc: louis lesage <louis.lesage@cnhw.qc.ca>; simon picard <simon.picard@cnhw.qc.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Bates, Martin <martin.bates@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Subject: Waterdown-Finch-Imperial Oil Ltd-Correspondence

Good afternoon Maxime,

Hope you are doing well.

I wanted to follow up on the recent events that have strained Imperial's relationship with your office and the monitors you have empowered to represent your Nation's interests during Imperial's field projects. Imperial has provided assurances and worked to reinforce direction to our onsite teams. However, at this time, Imperial recognizes that immediate action has to be taken. Imperial has made the decision to pause the Waterdown to Finch Stage 2 program to ensure an appropriate and effective resolution is found. ERM will notify you when the program will resume.

The attached correspondence from Imperial is the first step in this resolution. The project team understands the importance of providing clarity on how we can address these concerns and are working together to provide a plan for Huron-Wendat Nation to review. It will contain actionable items to facilitate the establishment of trust and confidence in Imperial and its contractors. I also want to take this opportunity to introduce Ryan Klue, who is copied in the correspondence, and will be joining the Waterdown to Finch Project to lead construction activities.

We have a long road before us on this project, and it is my hope that continuous communication and a willingness to listen to each other's point of view will make that road a lot smoother. Thank you for your continued efforts in making this possible.

Please let me know if you have any questions and I will see you next week!

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

ROC3428a Letter (2 pages)

August 1, 2019

Maxime Picard, Projects Coordinator - Ontario
Huron-Wendat Nation
maxime.picard@cnhw.qc.ca

Via email

Dear Maxime,

Re: Waterdown to Finch Stage 2 archaeology program restart plan

This letter is to outline the plan for the Waterdown to Finch Stage 2 archaeology program restart. The plan aims to improve the work environment, clarify roles and support safe practices onsite.

Personnel

Imperial's prime contractor for the Project, UPI, is mobilizing three field staff to provide leadership during program activities. UPI will have a Construction Manager, Environmental Coordinator and Safety Manager on site starting the week of August 5 to take the lead on field work.

Roles and Responsibilities

- UPI Construction Manager will be introduced to the field team as the Single Point of Accountability (overall authority) in the field.
- UPI Environmental Coordinator and Safety Manager will report to the Construction Manager.
- UPI Environmental Coordinator will be the point of contact (POC) for all environmental subcontractors.
- UPI Safety Manager will be the POC for all Safety issues.
- Past Recovery and ASI Field Directors will continue to be the POC for all archaeology-specific items. Imperial prefers that these items be addressed in the field if at all possible.
- Imperial's Community Relations Officer, Kelly Williams, will continue to be the POC for archaeology-specific requests that exceed Ministry of Culture, Tourism and Sport Standards and Guidelines and the Field Directors' professional opinion. In such cases, field work will continue while Imperial and HWN discuss resolution of the issue.
- With respect to workplace issues outside of safety and archaeology, i.e., respectful workplace, if potential issues are not adequately addressed in the field, Kelly Williams will be the initial POC.
- ERM will continue to be responsible for field logistics.
- Monitors will continue to participate in and observe field work; ensure community perspectives and priorities are considered; and provide input regarding the project.
- TGH safety monitors are responsible for issuing work permits on behalf of Imperial Operations. They are responsible for implementing Imperial's safety policies and ensuring that they are being followed.

Training

- Prior to the Tuesday, August 6 restart, Imperial will provide an Indigenous Awareness briefing to the supervisor-level contractors, including the new Construction Manager, Environmental Coordinator and Safety Manager.
- Within the next month, Imperial will deliver a Project-specific Indigenous Awareness training course to all field contractors, including those participating in the environmental field work.
- UPI's Program Construction Manager will be in the field to provide project on-boarding to the new UPI personnel.

Communication

When field work is underway, there will be a 6am Daily Supervisors Meeting at a central location to be provided with the regular logistics communications. Monitors are invited to attend this meeting.

Safe Working in Heat
A process for resolution of heat-related issues has been developed to ensure the correct on-site person is involved. New instruments for measuring temperature, dew point and humidity are being purchased to ensure the accuracy and consistency of the readings. A procedure for resolution of issues has been developed to guide the process to the correct person.

For the summer months, the work day will start at 7am to take advantage of cooler temperatures earlier in the day.

As stated previously, Imperial is committed to a work environment that fosters mutual respect and positive working relationships. Conduct contrary to this is considered unacceptable in our workplace. It is Imperial's expectation that our contractors understand and respond in a way that is considerate and coordinated. Imperial remains highly involved in the Waterdown to Finch Stage 2 archaeology field program to ensure project expectations are being met. As noted above, Imperial will continue to engage your community in a transparent manner as we work to resolve these issues.

Please contact Kelly Williams, Imperial Community Relations Officer (kelly.williams@esso.ca or 519-328-8681) with any questions.

Thank you for your time and attention.

Sincerely,



Ryan Klue
Waterdown to Finch Project Manager of Execution
587.476.3095
ryan.a.klue@exxonmobil.com

cc. Jessie Malone, Environment & Regulatory Advisor, jessie.malone@esso.ca
Kelly Williams, Community Relations Officer, kelly.williams@esso.ca
Martin Bates, Engineering Maintenance & Project Manager, martin.bates@esso.ca

ROC3428b Email

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: August 1, 2019 6:10 PM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Curtis Campbell; Allidina, Zahra
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Re-start Plan
Attachments: 2019.08.01 Imperial WatFin Letter to HWN.pdf

From: Williams, Kelly /C
Sent: Thursday, August 1, 2019 8:07 PM
To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>
Cc: louis lesage <louis.lesage@cnhw.qc.ca>; simon picard <simon.picard@cnhw.qc.ca>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Bates, Martin <martin.bates@esso.ca>; 'Jenna Down' <Jenna.Down@erm.com>
Subject: Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Re-start Plan

Dear Maxime,

Thank you again for hosting our meeting today. It was very informative. As we discussed, the Stage 2 Archaeology Program for the Waterdown-Finch Project will re-start on Tuesday, August 6. Jenna Down from ERM will be in touch with you tomorrow regarding the logistics for your monitor. Attached is a letter from Ryan Klue, the construction project manager, that outlines the plan mentioned to HWN last week.

The letter is meant to provide HWN with reference information on a variety of field issues. Please let me know if you have any questions and have a great holiday weekend!

Best regards,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell

ROC3428c Email

McArthur, Cheryl

From: Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Sent: August 2, 2019 8:17 AM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Re-start Plan

From: Maxime Picard [mailto:maxime.picard@cnhw.qc.ca]
Sent: Friday, August 2, 2019 6:23 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: louis lesage <louis.lesage@cnhw.qc.ca>; simon picard <simon.picard@cnhw.qc.ca>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Bates, Martin <martin.bates@esso.ca>; Jenna Down <Jenna.Down@erm.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Re-start Plan

Good morning Kelly,
I would also like to thank you for traveling and visiting our community yesterday.
It was a pleasure to receive you all.
We have well received the letter and will let you know if we have any question.
Best 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 : 1 août 2019 20:07
À : Maxime Picard
Cc : louis lesage; simon picard; Klue, Ryan A; Murillo, Breanna K /C; Bates, Martin; Jenna Down
Objet : Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Re-start Plan

Dear Maxime,
Thank you again for hosting our meeting today. It was very informative. As we discussed, the Stage 2 Archaeology Program for the Waterdown-Finch Project will re-start on Tuesday, August 6. Jenna Down from ERM will be in touch with you tomorrow regarding the logistics for your monitor. Attached is a letter from Ryan Klue, the construction project manager, that outlines the plan mentioned to HWN last week.
The letter is meant to provide HWN with reference information on a variety of field issues. Please let me know if you have any questions and have a great holiday weekend!

ROC3440 (3 pages)

Imperial Waterdown to Finch Pipeline Replacement Project August 1, 2019 10:00 am	
Participants	
HWN • Maxime Picard, Ontario Project Coordinator • Louis Lesage, Director of Nionwentsio Office • Simon Picard, Director of Legal Services • Renée Pelletier, Legal Counsel • Melanie Vincent, HWN member and consultant to HWN	*Imperial* • Kelly Williams, Community Relations Officer • Jessie Malone, Environment and Regulatory Advisor • Zahra Allidina, Legal Counsel • Ryan Klue, Project Manager of Execution (phone) • Breanna Murillo, Socioeconomic Advisor (phone)

Objective(s)	
• To discuss Project-specific HWN-Imperial agreement	
Topic	**Discussion**
Agreement - general	• HWN Grand Chief addressed the group • Imperial is committed to negotiating a Project-specific agreement with HWN • Imperial is committed to avoiding and mitigating any potential impacts to archaeological sites, including the Parsons site • HWN stated that there will be impacts to Parsons site and other sites along pipeline • Imperial understands the scope of the agreement to be focused on potential impacts to archaeological sites of HWN as a result of the Project • Imperial removed content from proposed agreement to align with its understanding of the proposed scope • HWN would like an agreement that extends for the life of the project • Imperial to evaluate and propose a revised draft of the agreement for the parties to discuss, including confirmation of the scope • ***Imperial to provide revised draft Project-specific agreement to HWN by Thursday, August 15th***
Agreement - specifics	• Business and training opportunities – Imperial is currently considering the Project's construction contracting strategy and will share more information as it becomes available; HWN suggests that Imperial set aside a percentage of the work for HWN and if HWN companies do not have the capabilities, Imperial would compensate HWN; HWN companies include: Wendake construction (no pipeline experience, but excavation capabilities); Imperial does not typically do set asides • HWN services – HWN wants to do the next stage of archeological work; Imperial will consider this; HWN would not have monitors on site if their company were doing the work; HWN has not done Stage 3 and 4 work previously, but their business partner has; ***HWN to provide archaeology company capabilities***; Imperial has existing contract commitments in place – Stage 3 contract to be confirmed

	• Ossuaries – HWN stated that their community knows how to detect them; other archaeologists do not • Whereas clauses - removal of the clauses was to help and more clearly define the purpose of the agreement • Purpose of the Agreement draft provided by Imperial is suitable • Term included because things might change, i.e., project could get cancelled, so 'sole discretion' language; HWN suggest define 'Project term' instead; operation is not included (Imperial has different authority for different phases) • HWN is looking for a commitment agreement through life of project (construction and operations) • HWN would like to review archaeology reports prior to submission to MTCS and have comments incorporated; Imperial will provide copies of the reports prior to or in parallel with submission to MTCS • Liaison committee – HWN suggests that we do not need a cap in addition to costs; Imperial will revise the agreement to include the cap or the costs only • Monitors – HWN expectations to be involved in soil disturbance stages of construction; HWN will ask OEB to include construction monitors as a condition of approval; Imperial is open to construction monitoring and would like to understand HWN's specific requests; Imperial would hire an environmental compliance monitor and is open to HWN monitor also • Re: notifying HWN if artifacts are found, Imperial is committed to communicating those finds to HWN, in part by having HWN monitor • Imperial would like to develop the relationship and build trust; HWN would like things in an agreement; Imperial understands that trust takes time • Repatriation – Imperial will facilitate, but following MTCS process; HWN wants Imperial to direct our archaeologists to do this; Imperial will reconsider this language; ***HWN to provide contact information for HWN archaeologist for discussion re: understanding of repatriation process*** • Financial considerations – meant to cover implementation of the agreement, i.e., administratively, lots of projects going on, team in place to consider projects; ***HWN to provide details re: capacity funding request*** • Community Investment – Imperial to provide info re: general opportunities; ***HWN to provide specific requests for community investment (description and amount)***; amounts requested will relate to other agreement requests • Regulatory certainty – some of the language is okay, but HWN needs something in exchange; extends into life of project, so Imperial will edit language
OEB Hearing Process	• Imperial will be submitting IR responses to OEB on August 6th • Imperial expects a response from the OEB and potentially from Intervenors by August 16th • Imperial will respond by August 26th
Stage 2 Pause	• Field program challenges have not gone unrecognized by Imperial • Imperial has been working to support contractors on site • Imperial supports professional opinion of archaeologists

	• Stage 2 paused because of safety concerns related to implementation of heat stress policy; restart planned for August 6. Plan for contractors on site to take ownership of relationships in the field • Plan includes: new Safety Manager, Construction Manager and Environmental Coordinator with experience in Ontario with respect to pipelines, safety and Indigenous engagement to provide site leadership • Plan will be shared in a written correspondence to the Communities today and includes Indigenous Awareness training • Imperial is committed to a work environment that fosters mutual employee respect and positive working relationships. Conduct contrary to this is considered unacceptable in Imperial's workplace.

Action Items		Status
1	*Imperial to provide revised draft Project-specific agreement to HWN by Thursday, August 15th*	Complete
2	*HWN to provide archaeology company capabilities*	Partially complete
3	*HWN to provide contact information for HWN archaeologist for discussion re: understanding of repatriation process*	Complete
4	*HWN to provide details re: capacity funding request*	Complete
5	*HWN to provide specific requests for community investment (description and amount)*	Complete

ROC3431a

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: August 7, 2019 6:22 AM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Daniel Walker; Jenna Down; James Watson
Subject: FW: Waterdown-Finch Project-Parsons Site-Borehole Update-Imperial Oil Ltd
Attachments: B.1 WFP - BH136 and 137 Memo.pdf

From: Williams, Kelly /C
Sent: Wednesday, August 7, 2019 8:21 AM
To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>
Cc: louis lesage <louis.lesage@cnhw.qc.ca>; simon picard <simon.picard@cnhw.qc.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Curtis Campbell <Curtis.Campbell@erm.com>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; b.kennett@pastrecovery.com; Nicole Bishop <Nicole.Bishop@erm.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>
Subject: Waterdown-Finch Project-Parsons Site-Borehole Update-Imperial Oil Ltd

Good morning Maxime,

Please see the attached memo from Past Recovery regarding the Parsons Site and the assessments that took place there last month. The memo also includes a recommendation to avoid further disturbance to complete the borehole investigations for your review. Imperial would greatly appreciate it if you could forward any questions/comments you may have about the assessments and the recommendation by August 21. In addition, a teleconference meeting can be set up to discuss further if you wish.

Thank you once again for your time and attention to this matter.

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

Memo

To	James Watson (UPI); Jessie Malone (Imperial); Breanna Murillo (Imperial); Kelly Williams (Imperial)
From	Brenda Kennett (Past Recovery)
Cc	Jenna Down (ERM); Daniel Walker (ERM); Curtis Campbell (ERM); Nicole Bishop (ERM); Emma Bright (ERM)
Date	August 6, 2019
Subject	Parsons Site – Borehole Assessment Update

INTRODUCTION

This memo is prepared to address the recovery of archaeological materials in proximity to the Parsons Site while undertaking initial Stage 2 test pitting at the proposed location of borehole (BH) 136 and to present an alternate strategy to complete the geotechnical investigations required in the vicinity of the Parsons Site, particularly BH136, BH137 and BH135.

BH136

On July 3, 2019, the field crew began the Stage 2 assessment of the BH136 location at the Parsons Site. The plan was to excavate four shovel test pits placed at 5m intervals and centred on the stake marking the location for BH136 followed by a 1m x 1m unit directly over the borehole location. Work began with the excavation of the four test pits (Figure 1).

The Stage 2 assessment was carried out by Archaeological Services Inc. (ASI) on behalf of Past Recovery, the licenced archaeologist. The ASI field notes record the following:

- The two test pits south of the borehole showed a sandy loam topsoil (Layer 1) and beige silt (Layer 2) overlying a thin (5cm) layer of buried natural topsoil (Layer 3) and subsoil (Layer 4). No artifacts were recovered from these test pits. These negative test pits are designated on Figure 1 as single white dots located southwest and south east of BH136 pin (red triangle).
- The test pit northwest of the borehole showed a similar profile, but lacked Layer 3. One piece of pottery was recovered from Layer 1 in this test pit. This test pit is designated as ‘WPT2’ (Waypoint 2) on Figure 1.
- The test pit northeast of the borehole showed a sandy loam topsoil overlying a possible feature, and yielded 10 pieces of pottery and one flake. The potential feature consists of orange silt mottled with black silt and charcoal, and spanned the entire floor of the test pit at a depth of 30cm. This test pit is designated as ‘WPT1’ (Waypoint 1) on Figure 1.

WTP1

While 10 pieces identified as pottery were collected in the field, once cleaned and examined in more detail in the lab, five of these were determined to be small pieces of natural sandstone. Thus, the artifact collection from WPT1 consists of five small (< 1cm diameter) body sherds and one small (< 1cm) Onondaga chert flake fragment.

The excavation of WPT1 was stopped at the possible feature to prevent damage. As result, the test pit has not been fully excavated to subsoil. The context of the pottery sherds and lithic flake recovered from WPT1 is less clear owing to the presence of the partial feature and only being partially excavated.

WTP2

The single pottery sherd from WPT2 was found in the upper (modern) topsoil suggesting that it is in an unnatural, or secondary, context. WPT2 encountered subsoil at a depth of 30cm and was excavated 30cm into subsoil, and as such has been completed.

Following the discovery of the artifacts and the possible feature, the findings were discussed with the on-site archaeology monitors, Field Liaison Representative (FLR) and the Huron Wendat Nation (HWN) office. Based on this, it was mutually agreed that work at this location would cease until an additional strategy was developed.

BH136 Location

BH136 is situated on a gentle slope below the main terrace occupied by the Parsons Site village and above the east side of Black Creek. The BH is located approximately 20m west of the site's recorded limit and within 50m of a documented midden and palisade wall (Figure 2).

Figure 2 depicts the limits of two assessments from 1989-90 and 2013. The 1989-90 excavation was completed by ASI and associated with a watermain installation[4] while the 2013 excavation was completed by URS Corp. and associated with the construction of a multi-use pathway[5] (Figure 3). The placement of the BH is approximately 20m south and east of this pathway and approximately 10m south of the southern edge of the watermain trench (Figure 3 and Figure 4).

BH136 Recommendation

Past Recovery, Environmental Resource Management (ERM) and Imperial propose moving BH136 approximately 23m west on to the previously assessed pathway. The pathway was assessed by URS Canada archaeologists in 2011 through construction monitoring. The assessment removed all topsoil with a Link-Belt 210 excavator equipped with a smooth ditching bucket. The area was subsequently shovel shined to confirm no cultural features or archaeological resources were present in subsoil (see Figure 5). The report concluded that the pathway is considered clear of any further archaeological concern.

The proposed new location of Borehole 136, approximately 23m west of the current location, would bore through the cement pathway and extend into an area clear of archaeological concern (Figure 6). This would mitigate concern of impacts to the Parsons Site raised at the previous location with the artifacts and potential feature encountered by the ASI crew on July 3rd.

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[4] The c. 18m wide watermain trench across the Parsons Site was fully excavated by ASI in 1989-90 and Ontario Archaeology, Volume 65/66, 1998 provides a full discussion of the (pre-1998) archaeology at the Parsons Site.

[5] A Stage 2 assessment (shovel test pits at 5m intervals) of the c. 30 kilometres of multi-use pathways was completed by URS in 2010 (URS 2013). In 2011 URS completed a Stage 4 assessment of the pathway across the Parsons Site (above the watermain trench) which included construction monitoring of the c. 3.5m wide pathway excavation (URS 2015).

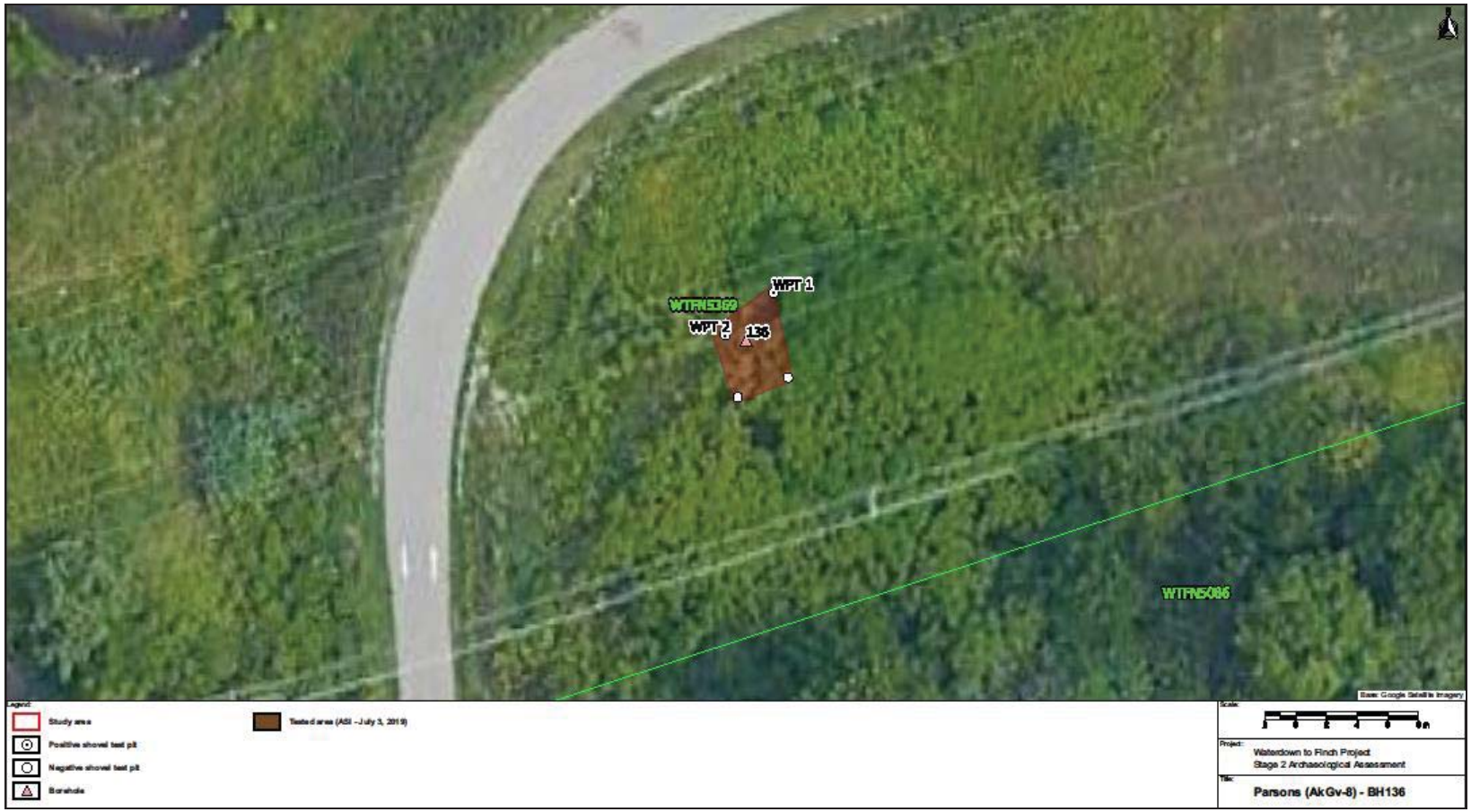

Figure 1: Positive test pits (WPT1 and WPT2) and negative test pits (white dots) excavated at BH136. (Trimble data from ASI fieldwork, July 3, 2019)

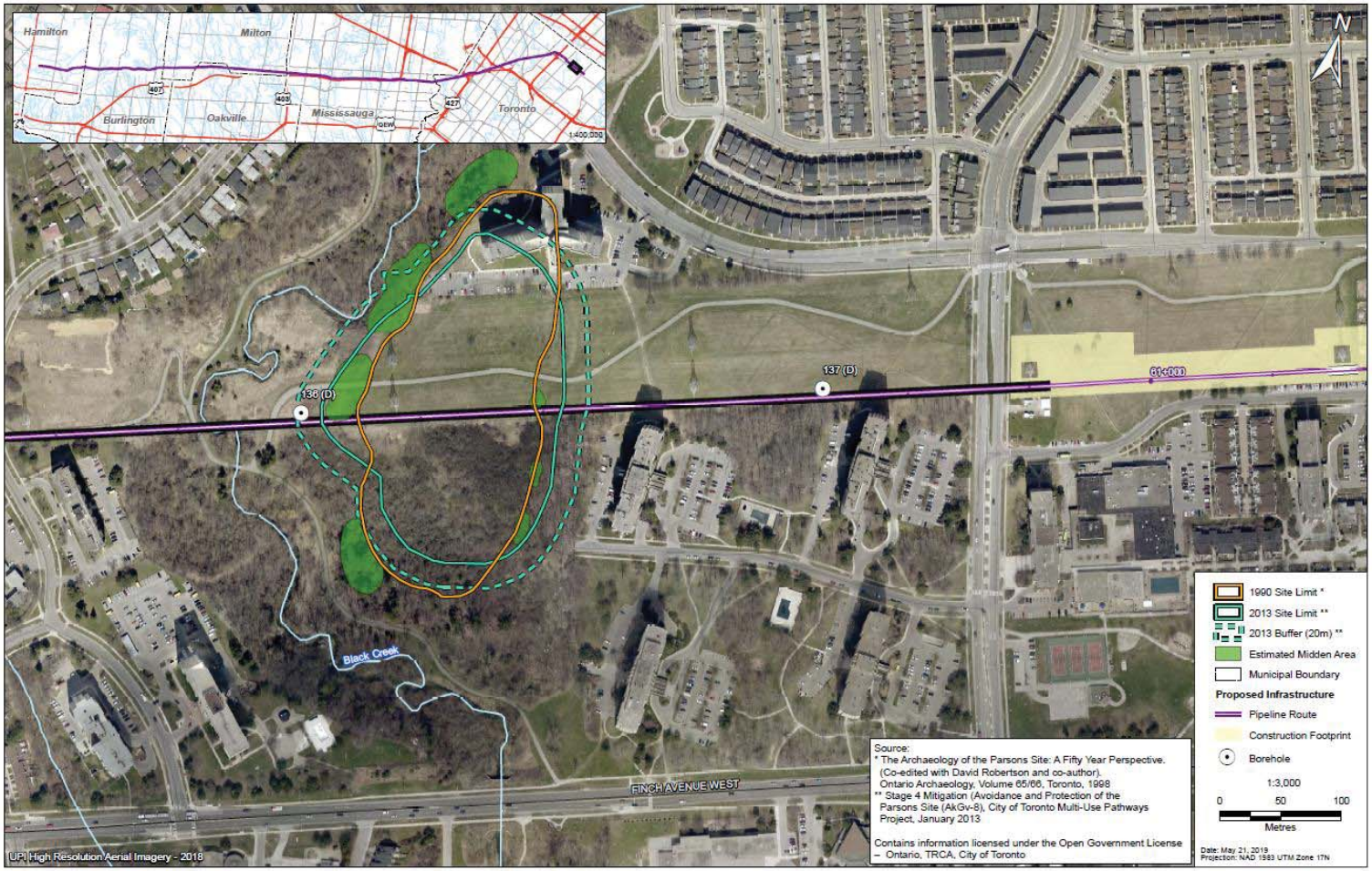

Figure 2: Overlay of all archaeological assessments (1998-2013) and the original locations of boreholes 136 and 137.

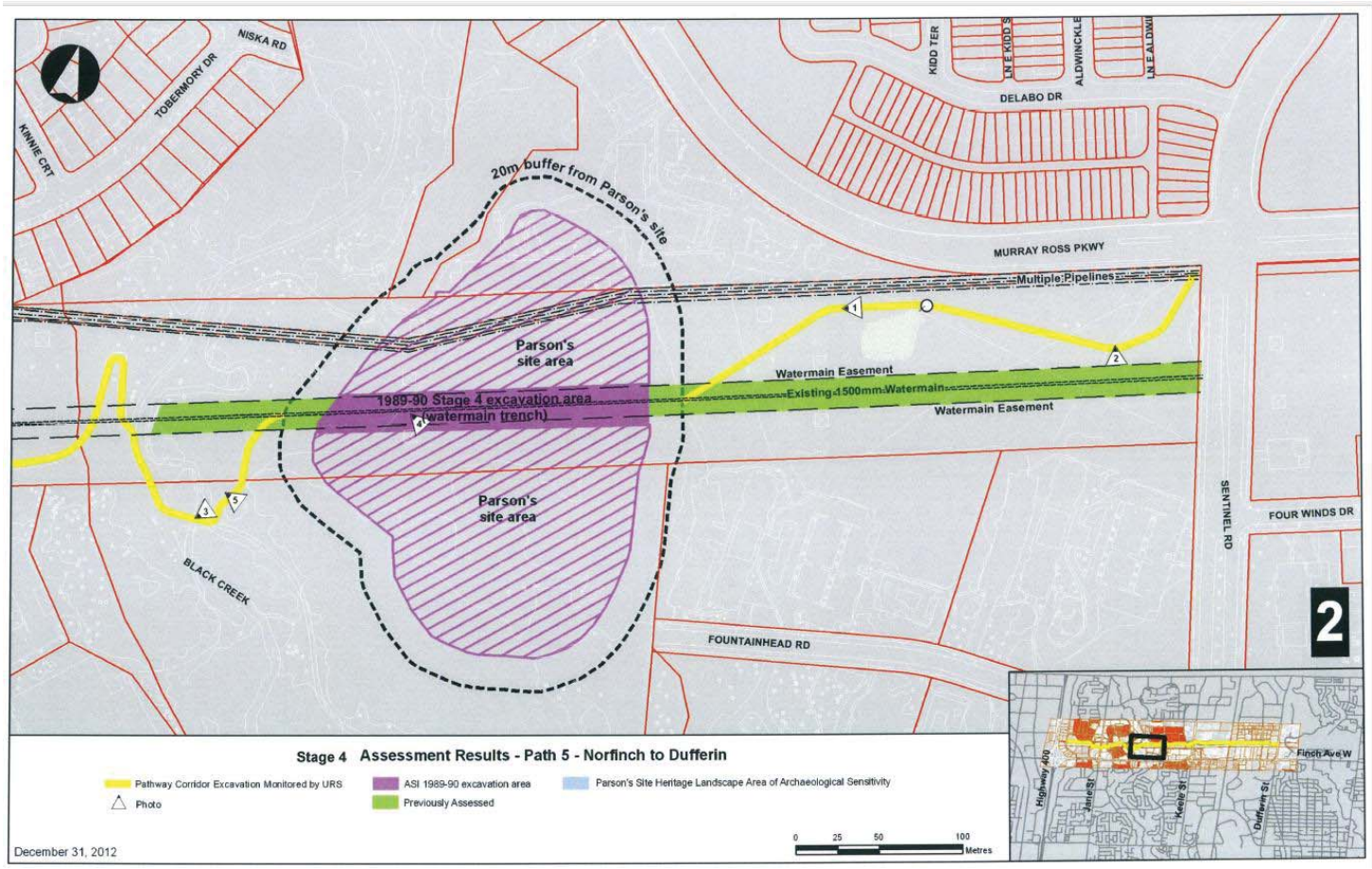

Figure 3: Pathway excavation (yellow) cleared all natural soils and confirmed no features within the pathway. (URS Corporation, *Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8)*, January, 2013).



Figure 4: View of BH136 during Stage 2 testing, looking east. (The apartment building on Fountainhead Road is visible in the background. The watermain trench would be situated along the left hand edge of this photograph as the southern edge of the watermain trench is immediately north of the hydro tower.) (Past Recovery 2019**)**



Figure 5: Photo depicting Gradall removing all topsoil from pathway location during URS Stage 4 Assessment. Assessment confirmed no features were present through monitoring and shovel shinning subsoil (URS Corporation, *Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8)*, April 2015).

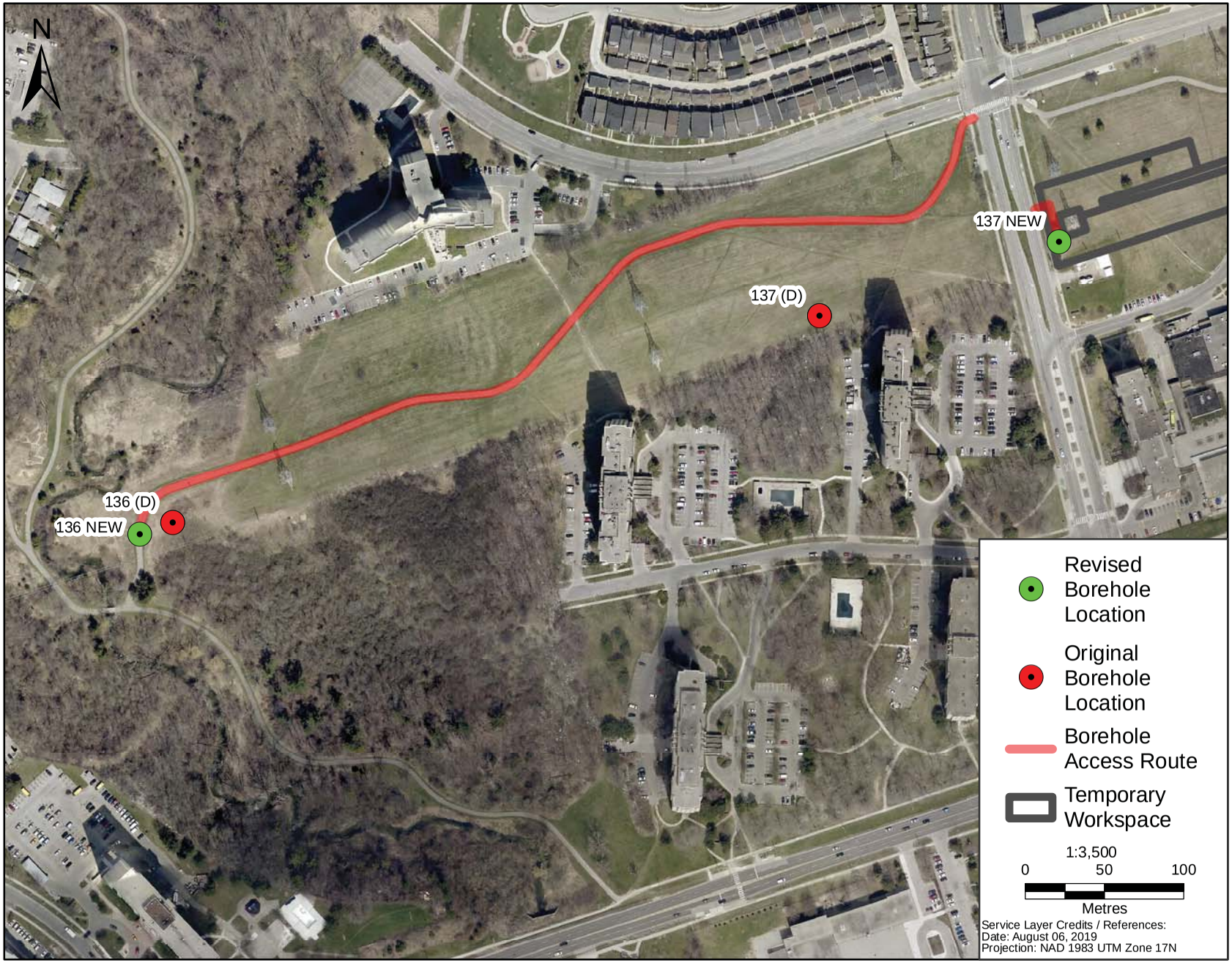

Figure 6 **Revised Borehole Locations 136 and 137**

BH137

To date, no Stage 2 assessment has been undertaken at this BH location. The original location for BH137 was approximately 200m east of the eastern palisade wall as indicated by the 1989-90 ASI watermain excavation (see Figures 2 and 3) and therefore outside the known limits of Parsons site. The BH was also located approximately 10m south of the southern edge of the watermain trench. Although it is located further to the north, the URS report on the Stage 3 and Stage 4 assessments for the pathway indicated considerable disturbance across this parcel (WTFN5369) to the east of the Parsons Site.

Similar to other BHs located within close proximity to the Parsons Site, the Stage 2 plan was to excavate four shovel test pits and a 1m x 1m unit at BH137. Access for the drill to BH137 was to be via the paved pathway from Sentinel Road and then south across the HONI corridor to the BH location, crossing the c. 18 m wide watermain trench. The off-pathway portion of the access route was to be matted.

With the recent findings at BH136, Past Recovery, ERM and Imperial propose moving BH137 to the east side of Sentinel road, approximately 160m from the current location of BH137, which would be closer to the exit point of the HDD (Figure 6). This proposed location would be accessed from Sentinel Road, and then south across the HONI corridor to the BH location. The off-pathway portion of the access route will be matted.

As mentioned above for the current location of BH137, we would propose to proceed with the 4 shovel test pits and the 1 m x 1m unit at this BH location. If cultural material is identified during this initial assessment, work will stop, and we will seek input from Indigenous Communities. Next steps could include Stage 3/4 excavation or moving the BH location.

BH135

BH135 is located within the HONI corridor approximately 340m west of Black Creek (c. 440 m west of the western palisade wall for the Parsons village). BH135 is also located immediately south of the watermain trench and disturbance is present across much of the parcel (WTFN5363).

A 30m buffer around BH135 was test pitted at 5m intervals July 8, 2019. Test pit soil profiles were deemed disturbed and no cultural material was encountered in any test pits.

An additional 1m x 1m test unit was excavated over BH135 on July 10, 2019 to confirm disturbance, the unit soil profile was consistent with test pit soil profiles. No cultural material or features were found in the test unit.

REFERENCES

2019. Past Recovery, Trimble data from ASI fieldwork, July 29 2019

1998. Ontario Archaeology, Volume 65/66

URS Corporation 2013. Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8). Final Report.

2019. Imperial Oil, Google Earth .KMZ file (provided July 29, 2019)

URS Corporation 2015. Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8). Final Report.

ROC3498 (copies of the interrogatory responses not included here)

McArthur, Cheryl

From: Malone, Jessie M <jessie.m.malone@esso.ca>
Sent: August 8, 2019 11:50 AM
To: Julia Brown
Cc: Selma Becirbasic; Williams, Kelly /C; Laing, Ian R
Subject: RE: EB-2019-0007 - Answers to Interrogatories
Attachments: IOL_IRR_Report_ 20190806_redacted.pdf; IOL_IRR_letter_20190806.pdf; Confirmation of Supporting Document Submission for Imperial Oil Limited, Case Number: EB-2019-0007

Good afternoon Ms. Brown,

My sincerest apologies that you were not included on the correspondence; please see attached Interrogatory Responses.

Please reach out with any questions.

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: Julia Brown [mailto:jbrown@oktlaw.com]
Sent: Thursday, August 8, 2019 8:53 AM
To: Malone, Jessie M <jessie.m.malone@esso.ca>
Cc: Selma Becirbasic <SBecirbasic@oktlaw.com>
Subject: RE: EB-2019-0007 - Answers to Interrogatories
Importance: High

Good Morning, Ms. Malone:

I write to follow up on my correspondence below. Please advise.

Regards,
Julia

From: Julia Brown
Sent: August 7, 2019 5:09 PM
To: jessie.m.malone@esso.ca
Subject: EB-2019-0007 - Answers to Interrogatories
Importance: High

Good Afternoon, Ms. Malone:

It appears that the Huron Wendat Nation was omitted from your list of intervenors on the attached correspondence. We have not yet received Imperial's Answers to Interrogatories and wonder if that may have been the cause of the oversight.

ROC3499

McArthur, Cheryl

From: Malone, Jessie M <jessie.m.malone@esso.ca>
Sent: August 8, 2019 2:50 PM
To: Zora Crnojacki; Michael Millar; alex.greco@cme-mec.ca; mathew.wilson@cme-mec.ca; Auryn Soares; Patrick Murphy; nicholas.rolfe@toronto.ca; John Kelly; kfrankl@toronto.ca; pmcmahon@uniongas.com; atul.sharma@gtaa.com; regulatory@hydroone.com; stayfitpaddle@gmail.com; timvirtanen10@gmail.com; tony.oliveri@halton.ca; meredith.baker@halton.ca; rachel.godley@peelregion.ca; Julia Brown; rpelletier@oktlaw.com
Cc: Laing, Ian R; boardsec@oeb.ca; Nicole Bishop
Subject: Imperial Oil Limited, Case Number: EB-2019-0007, Response to Information Requests - Appendix information

Good afternoon,

Please see links below for the supporting appendix documentation to Imperial's responses to interrogatories submitted on August 6, 2019. Due to large file size, these cannot be sent through email.

- Interrogatory response appendix 1-16
- Interrogatory response appendix 17-19

Please contact me directly if you have any difficulties viewing these documents.

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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ROC3500 (copy of Proedural Order No. 4 not included here)

McArthur, Cheryl

From: Malone, Jessie M <jessie.m.malone@esso.ca>
Sent: August 20, 2019 3:16 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Procedural Order No. 4 and Decision on Confidentiality - Imperial Oil Limited - OEB File No. EB-2019-0007
Attachments: PO4_Dec on Confidentiality_Imperial Oil_20190820.pdf

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From: Batul Rahimtoola [mailto:Batul.Rahimtoola@oeb.ca]
Sent: Tuesday, August 20, 2019 2:34 PM
To: Malone, Jessie M <jessie.m.malone@esso.ca>; Laing, Ian R <ian.r.laing@esso.ca>; 'regulatory@hydroone.com' <regulatory@hydroone.com>; '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>; 'patrick.mcmahon@enbridge.com' <patrick.mcmahon@enbridge.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>; '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: Procedural Order No. 4 and Decision on Confidentiality - Imperial Oil Limited - OEB File No. EB-2019-0007

Dear Ms. Malone:

The OEB has today issued its Procedural Order No. 4 and Decision on Confidentiality 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 | **O** 416-440-7635 | **OEB.ca**

ONTARIO ENERGY BOARD | COMMISSION DE L'ÉNERGIE DE L'ONTARIO

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ROC3441 (3 pages)

NATION
huronne-wendat

255, place Chef Michel Laveau
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Ligne sans frais : 1-877-712-3767
Télécopieur : (418) 842-1108

KONRAD H. SIOUI

GRAND CHEF DE LA NATION HURONNE-WENDAT
GRAND CHIEF HURON WENDAT NATION

Wendake, August 28, 2019

Delivered By Fax

Rich Kruger
Chairman, President and CEO
Imperial Oil Ltd.
Fax: (587) 476-1166

Subject: **Imperial's Waterdown to Finch Pipeline Project**
EB-2019-0007

Dear Mr. Kruger:

Kwe,

I am writing to you regarding a matter of serious concern for my Nation: the Imperial Oil Ltd. ("Imperial") application before the Ontario Energy Board for leave to construct a pipeline running from Waterdown to Finch (the "Project"). This Project is a component of Imperial's Sarnia Products Pipeline.

The Huron-Wendat Nation

The Huron-Wendat Nation's traditional lands in Ontario border the Great Lakes and span from Lake Nipissing in the north to Lake Ontario in the south, and from Owen Sound in the west to the Quebec border in the east. This area is called Wendake South. Historically, these lands were occupied by more than 100,000 members of the Huron-Wendat Nation, and the imprints of these lives and our Nation's culture, traditions and heritage are found across this territory. To date, over 800 archaeological sites directly associated with the Huron-Wendat Nation have been documented and registered in Wendake South, and the number of sites grows every year.

My Nation has a sacred obligation to ensure respect for and the protection of our archaeological and cultural heritage in Ontario. This obligation is especially strong in relation to protecting the Nation's ancestors' burial sites, which are deeply sacred to us because the souls of the ancestors continue to reside there. The Nation has a duty to ensure compliance with our Council's resolution, which states that all necessary measures must be taken to ensure respect for and the protection of Huron-Wendat cultural and archaeological sites.

The Huron-Wendat Nation's right to the integrity of its archaeological and burial sites is a right protected by section 35 of the *Constitution Act, 1982*.

Waterdown to Finch Project and Parsons Site

The proposed Project involves a pipeline which will run through the traditional territory of the Huron-Wendat Nation. This territory contains the richest recorded archaeological history in Ontario. **One of my Nation's most important archaeological sites in Wendake South, the Parsons Site (AkGv-8), is located on the proposed path for the pipeline**. This site and any other archaeological and burial sites on the pipeline's path constitute important cultural heritage resources.

We have sought and obtained leave to intervene in the Ontario Energy Board's consideration of Imperial's application for leave to construct, since the Project has significant potential to negatively impact our Nation's right to the integrity of its archaeological and burial sites, including the Parsons Site, and has in fact already done so. During stage 2 archaeological assessment work for the pipeline, artifacts associated with the Parsons Site were disturbed, disrupting what is otherwise an almost entirely pristine site.

My Nation has been engaged in direct discussions with Imperial on how the Huron-Wendat Nation's interests can best be protected. We have exchanged draft agreements outlining conditions that my Nation believes to be necessary for the adequate protection of the site and to offer compensation to the Nation for the impacts the Project has had and will continue to have on its archaeological and cultural sites.

While we have made some progress in these discussions in a recent meeting with Imperial representatives, we are far from receiving the commitments required by our Nation in order for the Nation to support the Project.

Imperial's commitment to Indigenous engagement

Imperial's public facing materials state that Imperial is committed to building mutually beneficial relationships with Canada's Indigenous peoples. The company's Indigenous Relations Guiding Principles and Guidelines state that Imperial is committed to minimizing and mitigating impacts on Indigenous rights. The Guidelines also state that Imperial conducts its business in a manner that respects the land, environment, rights and cultures of Indigenous communities.

These principles and the spirit guiding them have not been present in our discussions with Imperial to date. Imperial's representatives have sought to minimize the commitments made by Imperial concerning both the protection of the Huron-Wendat Nation's archaeological and burial sites and the compensation to our Nation for the impacts Imperial's Project has already had and will continue to have on its cultural heritage, particularly at the Parsons Site. Imperial's representatives have removed essentially all the protections sought by the Huron-Wendat Nation in the draft agreement provided to them by us. In fact, Imperial's representatives have gone so far as to remove any acknowledgment that the Project will be constructed on the Huron-Wendat Nation's traditional territory – an offensive act with respect to an utterly uncontroversial recital.

I request, on behalf of my Nation, that you direct the Imperial representatives engaged in discussion with the Huron-Wendat Nation to live up to Imperial's commitments regarding

Indigenous relations, and to engage in more meaningful conversations with the Huron-Wendat Nation. My Nation is not making unreasonable demands on Imperial – it is simply seeking to protect its sacred archaeological and burial sites from the impacts of Imperial's pipeline.

In the event that Imperial's approach with the Huron-Wendat Nation does not become a meaningful and respectful engagement process, we will honour our Council's commitment to protect the Nation's archaeological heritage by taking the steps necessary to protect the Parsons Site and any other sites on the pipeline route.

Know that you are always welcome in our community of Wendake and we would like to take this opportunity to invite you to come and visit us. We would be very pleased to be able to show you around and continue our discussions. While hoping for a favourable response to our requests, please accept my best regards.

Yours truly, tiawenhk,

Konrad Sioui
Grand Chief

c.c. Mr. Maxime Picard, Ontario Projects Coordinator
Mrs. Renée Pelletier, Olthuis, Kleer, Townshend, LLP

ROC3443a (3 pages)

NATION
huronne-wendat

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Wendake (Québec) G0A 4V0
Téléphone : (418) 843-3767
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Télécopieur : (418) 842-1108

KONRAD H. SIOUI

GRAND CHEF DE LA NATION HURONNE-WENDAT
GRAND CHIEF HURON WENDAT NATION

September 4 2019

Delivered Via E-Mail

The Honourable Greg Rickford
Minister of Energy, Northern Development and Mines
Whitney Block, Room 5630, 5th Floor
99 Wellesley St. West
Toronto, ON M7A 1W1
greg.rickford@pc.ola.org
greg.rickford@ontario.ca

Dear Minister Rickford:

Re: Indigenous Consultation – Imperial's Waterdown to Finch Pipeline Project – EB-2019-0007

Kwe,

I write you regarding a matter of importance to the Huron-Wendat Nation: the Imperial Oil Ltd. ("Imperial") application before the Ontario Energy Board for Leave to Construct a pipeline running from Waterdown to Finch (the "Project"), its impact on one of our most significant archaeological sites, and the consultation delegated to and conducted by Imperial in relation to the Project.

The Huron-Wendat Nation

The Huron-Wendat Nation's traditional lands in Ontario border the Great Lakes and span from Lake Nipissing in the north to Lake Ontario in the south, and from Owen Sound in the west to the Quebec border in the east. This area is called Wendake South. Historically, these lands were occupied by more than 100,000 members of the Huron-Wendat Nation, and the imprints of these lives and my Nation's culture, traditions and heritage are found across this territory. To date, over 800 archeological sites associated with the Huron-Wendat Nation have been documented in Wendake South, and the number of sites grows every year.

The Huron-Wendat Nation has a sacred obligation to ensure the respect and protection of its archaeological and cultural heritage in Ontario. This obligation is especially strong in relation to protecting our ancestors' burial sites, which are deeply sacred to us because the souls of the ancestors continue to reside there. The Nation has a duty to ensure the respect of our Council's Resolution, which states that all necessary measures must be taken to ensure the respect and the protection of Huron-Wendat cultural and archaeological sites.

The Huron-Wendat Nation's right to the integrity of its archeological and burial sites is a right protected by section 35 of the *Constitution Act, 1982*, and the Crown is obliged to consult with my Nation when this right may be impacted, and to ensure that any impacts are accommodated by avoidance, mitigation and/or compensation. The Crown has recognized and acted on this duty for many years.

Waterdown to Finch Project and Parsons Site

Imperial's Project involves a pipeline of 63 km which will run through the traditional territory of the Huron-Wendat Nation. This territory contains the richest recorded archaeological history in Ontario. **One of my Nation's most important archaeological sites in Wendake South, the Parsons Site (AkGv-8), is located on the proposed path for the pipeline**. This site and any other archaeological and burial sites on the pipeline's path constitute a highly significant cultural heritage site.

The Project has the potential to disturb, badly damage, and even destroy the Parsons Site and other archaeological sites in the pipeline's path.

Because of this significant potential to negatively impact the Nation's right to the integrity of its archaeological and burial sites, including the Parsons Site, the Huron-Wendat Nation has sought and obtained leave to intervene in the Ontario Energy Board's consideration of Imperial's application for leave to construct,.

However, we are aware that the Ontario Energy Board looks to your Ministry to determine whether the duty to consult and accommodate has been discharged.

My Nation has been engaged in direct discussions with Imperial on how best the Huron-Wendat Nation's interests can be protected and the impacts on our rights accommodated. We have already exchanged draft agreements outlining conditions that the Huron-Wendat Nation believe to be fundamental for the adequate protection of the site and to propose possible compensation to the Nation for the impacts the Project has had and will continue to have on its archaeological and cultural sites (I note that a portion of the Parsons Site has already been disturbed in the course of the preliminary archaeological assessment work currently being undertaken).

While there has been some progress in these discussions, we are far from having our concerns addressed.

Consultation with Indigenous People

I understand that your Ministry has been providing guidance to Imperial on the consultation required for this Project. I also understand that Imperial will be looking to your Ministry to issue a Sufficiency Letter relating to the consultation work it has undertaken, and that the Ontario Energy Board will be advised if this letter is issued.

As you know, the responsibility for the duty to consult and accommodate lies with the Crown. The Crown can delegate procedural aspects of the duty, but is ultimately responsible for whether or not it has been discharged.

As I have stated above, Imperial's consultation with my Nation to date has not led to meaningful accommodation of many of our concerns.

This concerns us greatly. I trust that your Ministry will ensure that Imperial understands and acts on the requirements of the duty to consult and accommodate that have been delegated to it.

If the Crown fails to ensure that the duty to consult and accommodate is adequately discharged by Imperial, my Nation will honour our Council's commitment to protect the Nation's archaeological heritage by taking the necessary steps to protect the Parsons Site.

I am confident that your Government intends to build meaningful, respectful relationships with First Nation communities, and to ensure First Nations' constitutional rights are respected. As part of this work, and in light of the issues, I have laid out above, I trust that your Ministry will provide Imperial with the guidance it requires and will ensure that the duty to consult and accommodate my Nation is discharged, as the honour of the Crown requires.

I look forward to your response.

Yours truly,
tiawenhk,

Konrad Sioui
Grand Chief

C.C. Kelly Williams, Imperial Oil
Renée Pelletier, Olthuis, Kleer, Townshend, LLP

ROC3443b

McArthur, Cheryl

From: Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Sent: September 4, 2019 1:01 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Imperial's Waterdown to Finch Pipeline Project
Attachments: 190904 Indigenous Consultation - Imperial's Waterdown to Finch Pipeline Project - EB-2019-0007.pdf

From: Maxime Picard [mailto:maxime.picard@cnhw.qc.ca]
Sent: Wednesday, September 4, 2019 2:34 PM
To: greg.rickford@pc.ola.org; greg.rickford@ontario.ca
Cc: simon picard <simon.picard@cnhw.qc.ca>; louis lesage <louis.lesage@cnhw.qc.ca>; melanievincent21@yahoo.ca; RPelletier@oktlaw.com; Williams, Kelly /C <kelly.williams@esso.ca>; 'katy lefebvre' <katy.lefebvre@cnhw.qc.ca>
Subject: Imperial's Waterdown to Finch Pipeline Project

Good afternoon,

Please find attached a correspondence addressed to Minister Rickford on the Imperial's Waterdown to Finch Pipeline Project – EB-2019-0007.

Regards.

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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ROC3447a

McArthur, Cheryl

From: Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Sent: September 5, 2019 9:23 AM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Sept Meeting Confirmation

From: Williams, Kelly /C
Sent: Thursday, September 5, 2019 9:03 AM
To: Maxime Picard <maxime.picard@cnhw.qc.ca>
Cc: simon picard <simon.picard@cnhw.qc.ca>; louis lesage <louis.lesage@cnhw.qc.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: RE: Waterdown-Finch Project-Imperial Oil Ltd-Sept Meeting Confirmation
Hi Maxime-Yes! ☺ I will be sending you the information shortly. Thanks! -kelly

From: Maxime Picard [mailto:maxime.picard@cnhw.qc.ca]
Sent: Thursday, September 5, 2019 10:57 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: simon picard <simon.picard@cnhw.qc.ca>; louis lesage <louis.lesage@cnhw.qc.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: RE: Waterdown-Finch Project-Imperial Oil Ltd-Sept Meeting Confirmation
Good morning Kelly,
Should we expect to be back on field next week ?
Thanks,
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 : Malone, Jessie M [mailto:jessie.m.malone@esso.ca]
Envoyé : 30 août 2019 10:43
À : Maxime Picard; Williams, Kelly /C
Cc : simon picard; louis lesage; Majdalani, Elias; Murillo, Breanna K /C
Objet : RE: Waterdown-Finch Project-Imperial Oil Ltd-Sept Meeting Confirmation

ROC3447b

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: September 5, 2019 9:45 AM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Murillo, Breanna K /C
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9
Attachments: Issues Resolution and Communications_090419.pdf; Roles and Responsibilities 090519.pdf; Visio-Archy Field Program 090519.pdf

---

From: Williams, Kelly /C
Sent: Thursday, September 5, 2019 11:41 AM
To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>
Cc: louis lesage <louis.lesage@cnhw.qc.ca>; simon picard <simon.picard@cnhw.qc.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; 'Crepeau, Patrick' <Patrick.Crepeau@hii-upi.com>; Benschop, Mark <Mark.Benschop@hii-upi.com>
Subject: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9

Dear Maxime,

The project team has been working very diligently, examining ways to improve the Waterdown-Finch Project archaeology field program, for the past few weeks. Roles and responsibilities have been reviewed and refined. Concrete ways to improve communication and resolve field issues have been created. We are all very much aware that the true test of these efforts will be defined by successful execution.

For your information and review I have attached the following documents for the Waterdown-Finch Project Archaeology Field Program.

1) Roles and Responsibilities
2) Organization Chart
3) Issues and Communication Protocol

Imperial is requesting that you appoint a Lead Monitor to be the main point of communication for Mark Benschop, the Field Coordinator. Please confirm the name of your Lead Monitor to me as soon as possible. Mark, Patrick Crepeau (Construction Coordinator) and myself will be your main contacts for resolving issues brought forward by your Lead Monitor when they can't be resolved in the field. **We are inviting all monitors to have lunch with the three of us on the first day of the re-start**. **We have reservations for noon at the Tin Cup Sports Grill.**

Tin Cup Sports Grill
1831 Walkers Line
Burlington, ON L7M 0H6

The date for the re-start of the fieldwork is Monday September 9th. I will be out in the field on this day and will be conducting more frequent field visits in the future. An email detailing the logistics will be sent to you by Mark Benschop. We have an important request regarding the first day. The property to be surveyed is private and the owner has asked that we send them the names of the entire crew who will be working on the parcel. ASI is assigned to parcel ID

ROC3447c Attachment - Roles & Responsibilities (7 pages)

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1.0 ROLES AND RESPONSIBILITIES

1.1 General

The staff structure supporting the archaeological effort is based on a matrix organization. Each person is responsible to the project organizational hierarchy and to their respective organizations. The roles and responsibilities in this section and in the accompanying organizational charts define the project aspect of the matrix.

1.2 Acronyms

AFD	Archaeology Field Director (PR, ASI, and Other)
AFT	Archaeology Field Technicians (PR, ASI, and Other)
ALM	Archaeology Logistics Manager (ERM)
ASI	Archaeological Services Inc.
ATL	ERM Archaeology Technical Lead (ERM)
CCP	Community Consultation Personnel
CM	Construction Manager (UPI)
CRO	Community Relations Officer
CSID	Contractor Supervisor in Database (TGH or ERM)
ERCMP	Emergency Response and Care Management Plan
ERM	Environmental Resources Management (ERM)
FC	Field Coordinator (UPI)
FI	Field Inspector (ERM)
FL	Field Lead (ERM)
FSO	Field Safety Officer (ERM)
FSP	Field Safety Personnel
LC	Logistics Coordinator (ERM)
LM/FLR	Lead Monitors/Field Liaison Representatives
MTCS	Ministry of Tourism, Culture, and Sports
OA	Office Archaeologist (PR, ASI, and Other)
Other	Potential additional archaeology firm
PR	Past Recovery
PSM	Project Safety Manager (UPI)
ROW	Right-of-Way (CanACRE)
SSC	Sub-Surface Clearance (ERM)
UPI	UniversalPegasus International

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1.3 Logistics Staff

1.3.1 UPI Construction Manager (CM)

Responsible to progress and complete a safe, effective, and efficient archaeology field program to support the project. Single point of accountability (overall authority) in the field. Reports to the UPI Project Manager.

1.3.2 UPI Field Coordinator (FC)

All field crews report to the FC on a daily basis.

Responsible for executing the daily archeology logistics plan that has been approved by UPI CM. Reports to the UPI CM. Interfaces with LM/FLR, CRO, PSM, ALM, ATL, and MTCS License Holder.

1.3.3 ERM Archaeology Logistics Manager (ALM)

Responsible for managing the logistics for the field teams. Responsible for developing the logistics plans, 2-week look-ahead, base plan, reporting progress completion, and any contingencies. Interfaces daily with Stantec and CanACRE on these plans. Reports to the CM. Interfaces with FC, Field Leads, Stantec Survey Crew, CanACRE ROW Coordinator.

1.3.4 ERM Field Lead (FL)

Responsible for overseeing the progress at field level and ensuring field logistics are implemented. Reviews parcel limits with the SSC personnel to ensure the assessment does not encroach outside the defined parcel. Ensuring all field personnel are signed in at the beginning of the day, accounted for during timed breaks/lunch and signed out at the end of the day. Taking daily notes and ensuring information is relayed to the UPI FC and ERM office. Will be CSIDs after going through the Imperial training and approval process. Reports to FC. Interfaces with PSM, Permit Issuer, and ALM.

1.3.5 ERM Field Inspector (FI)

Responsible for completing pre-inspection on parcels prior to archaeology assessment. Inspection duties include identifying: parking capacity and location, vegetation concerns, SSC staking/flagging presence, survey staking, and adequate ploughing methodology. Reports to the ALM. Interfaces with the LC.

1.3.6 ERM Sub-Surface Clearance (SSC) Lead

Responsible for managing the public and private utility locates, overseeing of the SSC field personnel and following up with any sub-surface clearance

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related incidents, near misses or observations. Reports to the ALM. Interfaces with SSC Staff.

1.3.7 ERM Sub-Surface Clearance (SSC) Staff

Responsible for ensuring all public and private locates are completed prior to any intrusive work taking place in the field. This includes completing a visual check of the site to confirm all buried sub surface utilities are painted or staked in the field to identify all sub-surface utilities.

Any questions on site with regards to any signs of a utility will need to be addressed by the SSC Field Lead. They are ultimately accountable for all sub-surface clearances related matters. The SSC Staff also covers the role of FSO. Reports to FL. Interfaces with SSC Lead.

1.3.8 ERM Logistics Coordinator (LC)

Responsible to provide office support to the ALM in managing the logistics for the field teams including 2 week look ahead. Will work with the Field Inspector to ensure site access, parking locations, etc. meet the needs of the field crews. Reports to the ALM. Interfaces with Stantec Survey Crew and CanACRE ROW Coordinator.

1.3.9 CanACRE ROW Coordinator

Responsible for coordinating access for all of the archaeology work. Reports to the CM. Interfaces with ALM, LC.

1.3.10 Stantec Survey Crew

Responsible for staking the areas for archaeological assessment. Reports to the UPI CM. Interfaces with ALM, LC.

1.4 Archaeology Personnel

1.4.1 MTCS License Holder, Professional Archaeologist (Past Recovery)

The license holder for the project with the Ministry of Tourism, Culture, and Sports (MTCS) is responsible for:

Filing the report with the Ministry containing the full details of work done under the license and such other information as the Minister may require.

To ensure the work follows the “Standards and Guidelines for Consultant Archaeologists” issued by the MTCS.

1.4.2 ERM Archaeology Technical Lead (ATL)

Responsible for the archaeological technical aspect of the project including the deliverables of the archaeological field program such as communication of findings to UPI/Imperial, report deadlines and reviews. Have awareness

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of the project footprint and any adjustments from engineering. Reports to the ALM. Interfaces with FC, MTCS License Holder, OA's.

1.4.3 Office Archaeologist (OA) (PR, ASI, and Other)

Responsible for compiling archaeological reports for the MTCS license holder review, obtaining data regularly from the AFD, compiling data from the field to provide accurate progress data for the ERM ALM and ERM LC, and providing front end planning for the respective field crews. Interfaces with ALM and LC.

1.4.4 Archaeology Field Director (AFD) (PR, ASI, and Other)

Responsible for directing all archeological field work including determining archaeological potential and methodology. They are accountable for all archaeological field level decisions.

1.4.5 Archaeology Field Technicians (AFT) (PR, ASI, and Other)

Responsible for performing physical fieldwork, including screening, shoveling, backfilling test pits and walking ploughed fields. Each technician is responsible for examining soils for artifacts and soil profiles. Reports to AFD.

1.5 Field Safety Personnel (FSP)

It is everyone's responsibility to look out for the health and safety of the project team.

1.5.1 UPI Project Safety Manager (PSM)

Responsible for the overall safety program in the field including ensuring the work is progressing safely, developing safety plans as needed, continues to work on ERCMP, addresses any safety concerns in the field. Interfaces on a daily basis with TGH. Reports to the CM. Interfaces with all FSP.

1.5.2 ERM Field Safety Officer (FSO)

Responsible for ensuring IOL and ERM Health and Safety protocols are adhered to by all ERM subcontractors working on this project. The FSO is responsible to communicate any incidents or concerns to UPI PSM as well as UPI personnel to ensure everyone is aware of any health and safety incidents in the field. The FSO also covers the role of SSC Staff. Reports to the FL. Interfaces with FC and all FSP.

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1.5.3 Permit Issuer

Responsible for issuing the daily work permits to the crews. This role is being performed by TGH for Imperial Operations. Reports to Imperial Operations. Interfaces with CM, FC, and all FSP.

1.5.4 Contractor Supervisor in Database (CSID)

Responsible for ensuring Imperial HSE procedures are being implemented and providing safety oversight to the field crews. The CSID role is currently being performed by TGH. This role will transition to the ERM Field Leads after they go through the Imperial training and approval process. Interfaces with FC and all FSP.

1.6 Engagement Communities

1.6.1 Participating Communities

- Haudenosaunee Development Institute (HDI) / Haudenosaunee Confederacy Chiefs Council (HCCC)
- Huron-Wendat Nation (HWN)
- Mississaugas of the Credit First Nation (MCFN)
- Six Nations of the Grand River (SNFN)

1.6.2 Community Consultation Personnel (CCP)

Staff who have been delegated by their leadership to be the main contacts to represent the interests of their nation as Imperial undertakes the procedural aspects of the duty to consult as delegated to Imperial by the Ministry of Energy Northern Development and Mines. Staff also co-ordinate the field monitoring program for their community.

1.6.3 Monitors / Field Liaison Representatives

The activities of this role include:

To participate in and observe field work

To ensure community perspectives and priorities are considered in conducting assessments

Provides field communication to community offices

1.6.4 Lead Monitors / Field Liaison Representatives (LM/FLR)

Lead Monitor/Field Liaison Representative to be appointed by each community to liaise directly with UPI Field Coordinator (UPI FC)

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1.7 Imperial Consultation and Engagement Personnel

1.7.1 Imperial Community Relations Officer (CRO)

Manages consultation and engagement activities related to the Waterdown-Finch project with designated engagement communities by building and maintaining mutually beneficial relationships based on Imperial's principles and guidelines.

Supports the procedural aspects of the duty to consult with the engagement communities by coordinating comments and feedback regarding project information and programs, and ensuring a timely response from Imperial as the project proponent

Supports regulatory and permitting processes by facilitating community/project engagement ensuring that Imperial understands and responds to project impacts on traditional rights

Manages community engagements and acts as a facilitator and advisor for project's multi-disciplinary project team

In Relation to Archaeology Program

Responds to and advises on issues and concerns that cannot be resolved in the field and collaborates with communities and project team on resolutions

Performs regular field visits to build relationships with lead field monitors and to understand field dynamics to facilitate collaboration and issue resolution

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1.2 Field Management Issues 1
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4.1 Daily Logistics Communications 2
4.2 Communication to/from Community Consultation Personnel 2

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1.0 ISSUES RESOLUTION

1.1 Archaeology

Issues and concerns related to archaeology are to be addressed in the field as much as possible between the Archaeology Field Directors (AFDs) and the Lead Monitors/FLRs (LM/FLR) with facilitation by the Field Coordinator (FC).

If an issue or concern cannot be resolved in the field, the LM/FLR are to document the issue/concern and raise this with the Community Consultation Personnel (CCP). In turn they will share this issue/concern with the Imperial Community Relations Officer (CRO). In parallel, the AFD will document the issue/concern and provide this to the FC who will communicate this to the CRO. In such cases, field work will continue within the Ministry of Tourism, Culture, and Sport (MTCS) Standards and Guidelines (S&G) and the Field Directors' professional opinion.

1.2 Field Management Issues

Issues and concerns related to logistics and site management are to be brought forward by the Lead Monitors/FLRs (LM/FLR) to the Field Coordinator (FC). The FC will bring this issue to the Construction Manager (CM) and the Archaeology Logistics Manager (ALM).

If there is an inadequate or no response to the issue/concern, the LM/FLR are to document the issue/concern and raise this with the Community Consultation Personnel (CCP). In turn they will share this issue/concern with the Imperial Community Relations Officer (CRO). In parallel, the FC will document the issue/concern and will communicate this to the CRO.

2.0 RESPECTFUL WORKPLACE

Respectful workplace concerns are to be directed to the FC. The FC will work with the CM to address.

3.0 STOP WORK ORDERS

3.1 Safety Related

Imperial, UPI, ERM, and TGH have the responsibility and authority to stop all site work if dictated by Imperial HSE procedures.

Unsafe behaviors are to be reported immediately to the nearest Field Safety Personnel (FSP) and to be escalated immediately to the UPI Project Safety Manager (PSM) to determine an appropriate path forward. Work may continue if appropriate and in alignment with the site safety policies as determined by the PSM.

Everyone on site is covered by the Emergency Response and Care Management Plan (ERCMP).

3.2 Work Execution Related

UPI and Imperial have the authority to stop all site work if related to work execution.

The subcontracting entities are to consult with the FC before stopping work for a reason other than safety.

4.0 COMMUNICATION PROTOCOL FOR THE ARCHAEOLOGY PROGRAM

This communication protocol applies to the archaeology program and does not extend to other lines of discussion such as agreements.

The lines of communication are to be clearly established for the archaeology program. This protocol aims to reinforce our commitment to a mutually respectful and collaborative relationship, effective and timely communication and conflict management.

4.1 Daily Logistics Communications

Archaeology Logistics Manager (ALM) and Logistics Coordinator (LC) will develop the daily plan and submit to the CM and FC for review/approval. After approval, the FC then forward to Archaeology Teams, LM/FLR, and CCP.

4.2 Communication to/from Community Consultation Personnel

All communications to the Community Consultation Personnel (CCP) are to be performed by the CRO.

Any communication from the Communities not related to the Daily Logistics and received by someone other than the CRO is to be responded to with the statement “Your communication has been received and has been forwarded to the CRO for response.” The CRO is to be copied on the response.

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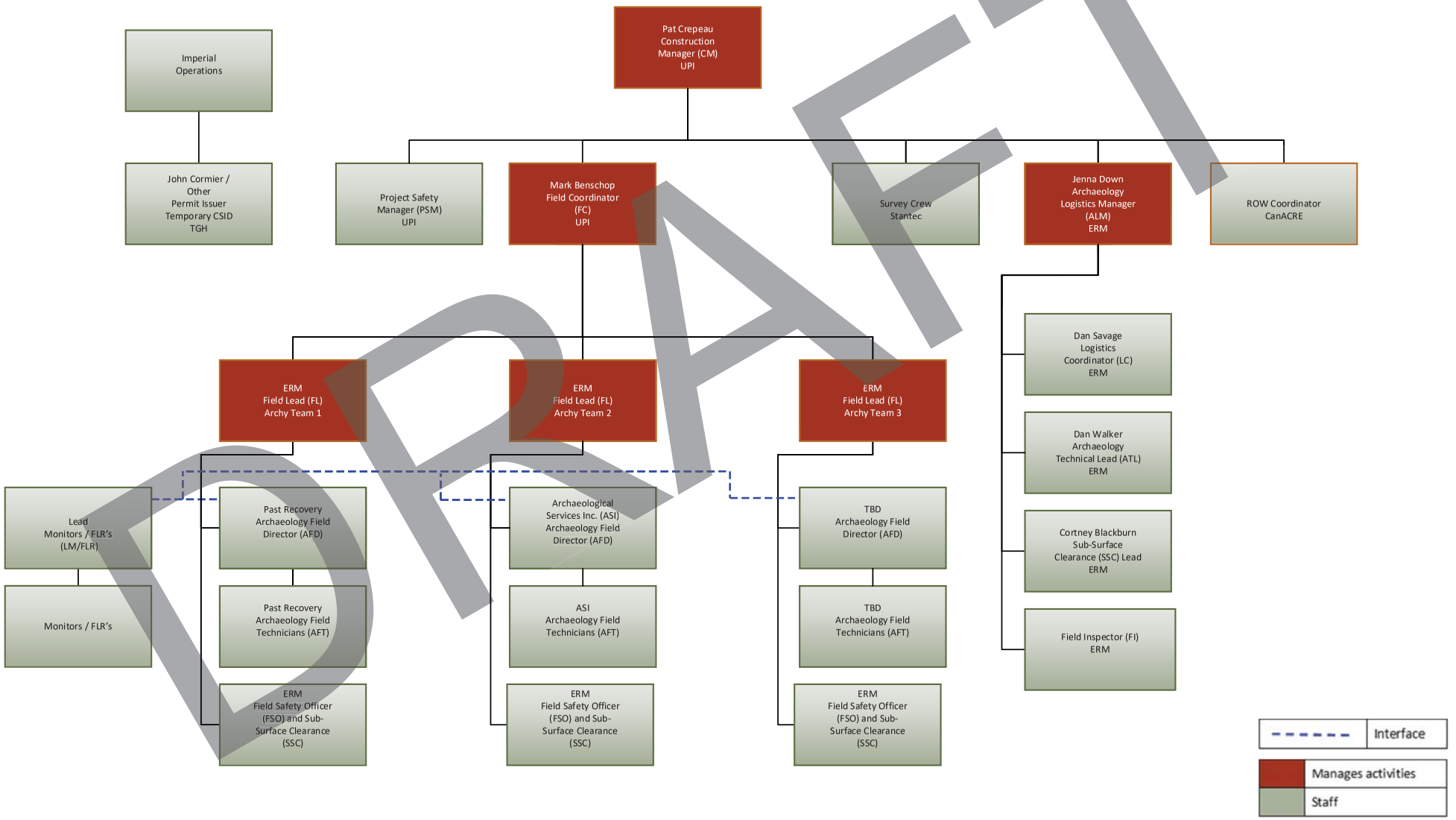
ROC3447e Attachment - Organization Chart (4 pages)

Imperial Oil
Waterdown to Finch Project
Organizational Chart

Overall Field Team



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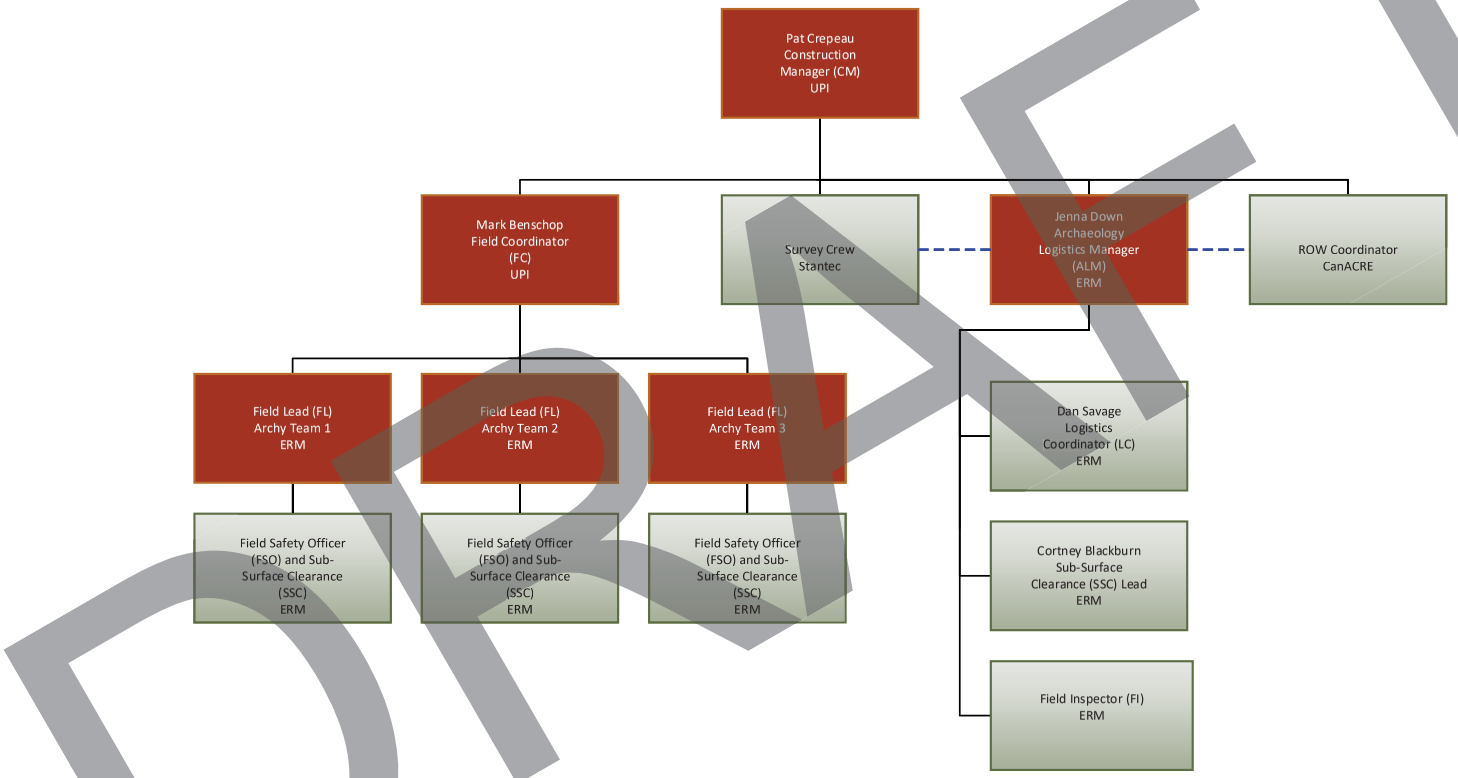
Imperial Oil
Waterdown to Finch Project
Organizational Chart

Field Logistics Team



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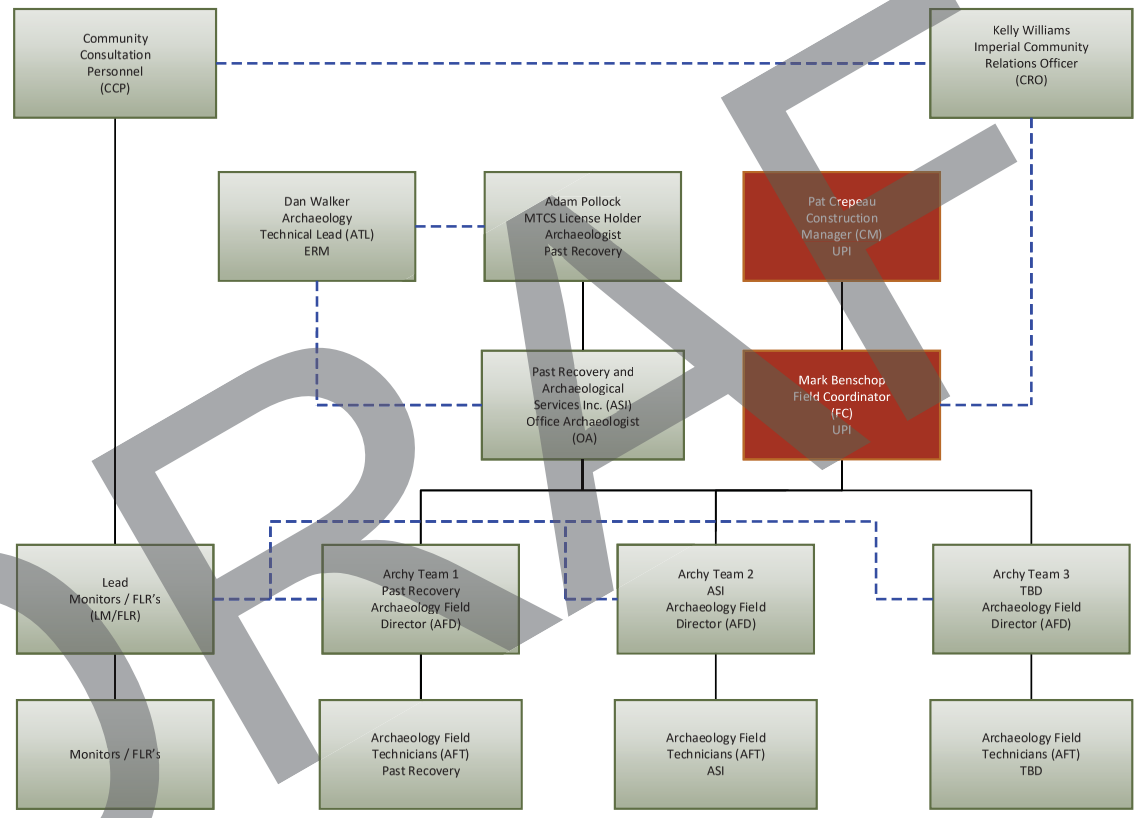
Interface

Manages activities

Staff

Imperial Oil
Waterdown to Finch Project
Organizational Chart

Archaeological Team



DRAFT

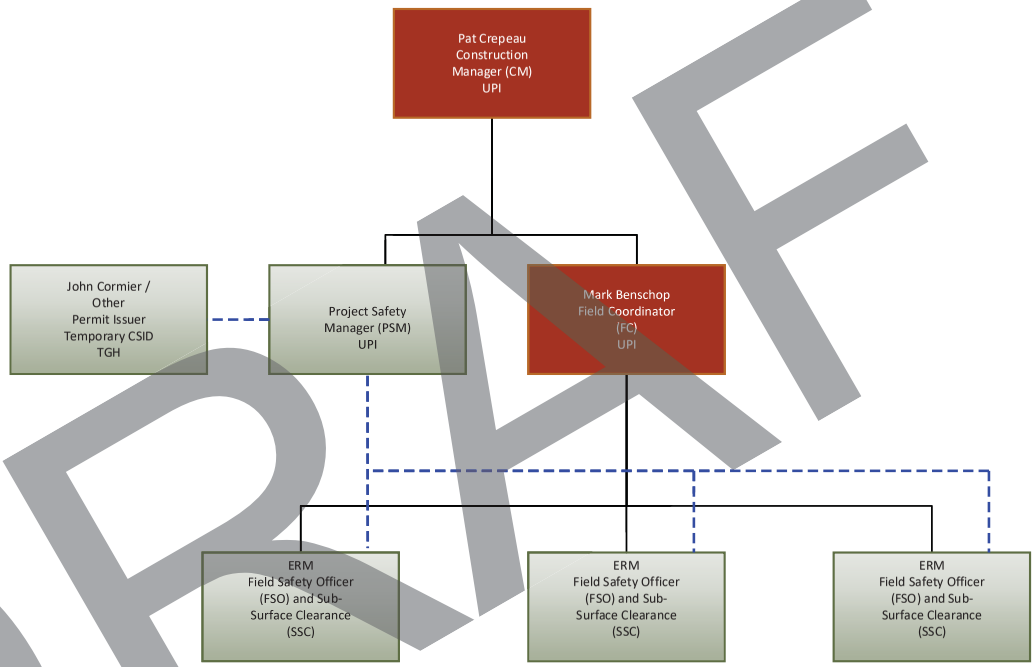
Interface

Manages activities

Staff

Imperial Oil
Waterdown to Finch Project
Organizational Chart

Field Safety Team



DRAFT

Interface

Manages activities

Staff

ROC3554

Sherri L Evers
Downstream Fuels Director Central / Eastern Canada
Imperial Oil
403-370-2885 Tel
sherri.l.evers@esso.ca

September 12, 2019

Grand Chief Konrad Sioui
Huron-Wendat Nation
225, place Chef Michel Laveau
Wendake (Quebec), G0A 4V0
administration@cnhw.qc.ca

Dear Grand Chief Sioui,

Re: Your letter to Imperial Oil dated August 28, 2019

I am in receipt of your letter to Rich Kruger, expressing your concerns with our Waterdown to Finch Pipeline Project. Mr. Kruger takes your concerns very seriously and has asked me to follow up with you.

I recognize that our Project is within the traditional lands of the Huron-Wendat Nation, and there is concern over potential impacts to the Parsons Site. I also understand that the Parsons Site is more than just an archaeological site, and that the area holds deep cultural and sacred significance for the Huron-Wendat Nation. It is our goal to protect this site. We must work together to ensure respect for and protection of the Nation's archeological and cultural heritage.

I am committed to ensuring we continue a meaningful and respectful engagement process. I accept your invitation to visit Wendake, and look forward to having a face to face discussion on how we will progress forward together. I have asked our representatives to contact your office and schedule a meeting.

Thank you for taking the time to bring your concerns to our attention. I look forward to meeting with you.

Yours Sincerely,

Sherri Evers
Downstream Fuels Director Central/Eastern Canada

Cc. Maxime Picard, HWN Projects Coordinator – Ontario, maxime.picard@cnhw.qc.ca
Kelly Williams, Imperial Community Relations Officer, kelly.williams@esso.ca

ROC3454a (Attachment is ROC3554)

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: November 20, 2019 10:31 AM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Copy of the letter
Attachments: 2019.09.12 Letter to HWN Grand Chief Sioui-Sept 12-19.pdf

From: Williams, Kelly /C
Sent: Thursday, September 12, 2019 7:40 PM
To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>
Cc: Majdalani, Elias <elias.majdalani@exxonmobil.com>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Allidina, Zahra <zahra.allidina@esso.ca>; Evers, Sherri L <sherri.l.evers@esso.ca>; Thiessen, Corinne E <corinne.e.thiessen@esso.ca>
Subject: RE: Copy of the letter

Good evening Maxime,

I hope you and your team have arrived safely in Toronto. The Imperial team wanted to ensure you received this response in advance of our discussion tomorrow. I am looking forward to a productive meeting.

Sincerely,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell

From: Maxime Picard [mailto:maxime.picard@cnhw.qc.ca]
Sent: Tuesday, September 10, 2019 3:47 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Subject: RE: Copy of the letter

Appreciate your efforts Kelly.

ROC3454b

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: September 12, 2019 7:41 PM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Murillo, Breanna K /C; Horvath, Tom A; Shield, Helga M; McGrath, Margaret E
Subject: FW: Copy of the letter

From: Maxime Picard [mailto:maxime.picard@cnhw.qc.ca]
Sent: Thursday, September 12, 2019 8:07 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Majdalani, Elias <elias.majdalani@exxonmobil.com>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Allidina, Zahra <zahra.allidina@esso.ca>; Evers, Sherri L <sherri.l.evers@esso.ca>; Thiessen, Corinne E <corinne.e.thiessen@esso.ca>
Subject: Re: Copy of the letter

Well received Kelly

Envoyé de mon iPhone

Le 12 sept. 2019 à 19:39, Williams, Kelly /C <kelly.williams@esso.ca> a écrit :

> Good evening Maxime,
>
> I hope you and your team have arrived safely in Toronto. The Imperial team wanted to ensure you received this response in advance of our discussion tomorrow. I am looking forward to a productive meeting.
>
> Sincerely,
>
> *Kelly Williams*
> Community Relations Officer
> 602 Christina Street
> Sarnia, ON Canada N7T 7M5
> 519-328-8681 Cell
>
> ---
>
> **From:** Maxime Picard [mailto:maxime.picard@cnhw.qc.ca]
> **Sent:** Tuesday, September 10, 2019 3:47 PM
> **To:** Williams, Kelly /C <kelly.williams@esso.ca>
> **Subject:** RE: Copy of the letter
>
> Appreciate your efforts Kelly.

ROC3455a (2 pages)

Jessie Malone, P.Eng
Environmental and Regulatory Advisor
587.476.4799 Tel
Jessie.m.malone@esso.ca

September 13, 2019

Emma Sharkey
Senior Advisor
Ministry of Energy, Northern Development and Mines
emma.sharkey@ontario.ca

Re: Sept. 4, 2019 Nation Huronne-Wendat letter re: Indigenous Consultation – Imperial's Waterdown to Finch Pipeline Project – EB-2019-0007

Dear Ms. Sharkey,

This communication is intended to provide additional clarity and context in response to various matters outlined in the Nation Huronne-Wendat (NHW) Sept. 4, 2019 letter to the Ministry of Energy, Northern Development and Mines (MENDM) regarding Indigenous consultation for Imperial's Waterdown to Finch Project (the Project).

Imperial conducts business in a manner that respects the land, environment, rights and cultures of Indigenous communities. We seek to understand Indigenous perspectives on issues of mutual interest and to deal constructively with differing views. Imperial is addressing concerns through ongoing engagement and consultation directly with the NHW and its legal representative to determine appropriate actions. This engagement will continue until the Project is complete. Imperial is also addressing NHW concerns through the formal Leave to Construct regulatory process, administered by the Ontario Energy Board (OEB), where the NHW has requested and received intervenor status. Imperial addressed initial interrogatories from NHW through this process on Aug. 6, 2019 and the subsequent written hearing proceedings are scheduled for Sept. 20, 2019.

Imperial recognizes that the NHW has strong historical settlement ties in southern Ontario on the north shore of Lake Ontario, and acknowledges the interest of NHW in the archaeological assessment work, particularly the interest in the participation of Indigenous Field Monitors and in reviewing the Archaeological Assessment reports. Imperial is following all requirements as set out in the Ontario Heritage Act and the Ministry of Tourism, Culture and Sport (MTCS) Standards and Guidelines for Consultant Archaeologists. In addition to working with a licenced archeologist, Imperial will continue to include Indigenous Field Monitors in the archaeological assessment fieldwork for the Project.

Through the OEB's Leave to Construct process, within its completed set of interrogatory responses, there are specific details regarding how Imperial and its licenced consultant archaeologist will develop a site avoidance and protection plan for the Parsons Site. Imperial will continue to consult and engage NHW during the development of this plan and will provide a draft of the plan for review prior to implementation. This plan will describe in detail the avoidance and protection measures that will be implemented and enforced before, during and after construction activities.

Consultation Summary
Imperial has been clear in its commitment to ongoing consultation and engagement with Indigenous communities impacted by the Project, including the NHW. Imperial continues to consult and engage NHW in a robust manner that meets regulatory requirements. This is demonstrated in Imperial's Indigenous Consultation Report (February 2019) and Imperial's Response to Information Requests (August 2019), which include an updated engagement summary (provided directly to the MENDM on Aug. 6, 2019) and Imperial's interrogatory responses to NHW's specific requests (Attachment 1).

Following Imperial's August 2019 regulatory submissions, which reflect interactions to the end of June 2019, consultation and engagement with NHW has continued, including ongoing discussions with respective legal representatives. A summary is provided in Attachment 2.

Recent Concerns/Requests and Responses
Recent Project-specific concerns/requests and Imperial's responses are summarized in Attachment 3.

Parsons Site Avoidance
A highly-utilized transmission corridor near Sentinel Road and Murray Ross Parkway in an urbanized area of North York, Toronto passes through the Parsons Site. This corridor has been previously disturbed for industrial development. Pipelines, transmission towers and other utilities, such as water lines, already cross the Parsons Site.

The Project plans to protect the integrity of the Parsons Site through the proposed use of Horizontal Directional Drilling (HDD) trenchless installation technology (outlined in Attachment 4). This approach would allow Imperial to avoid the site by installing the pipeline with entry and exit points well outside of the known boundaries of the Parsons Site and up to 30 metres below the surface.

HDD is considered one of the least intrusive methods for installing an underground pipeline. This technique is a proven way to accommodate features such as watercourses, highways, wetlands and other sensitive areas, like the Parsons Site. HDD allows for the pipeline to be installed underground using specific entry and exit points to avoid any surface level or near-surface level disruptions.

Recovery of Artifacts
The Stage 2 work at these two borehole locations is for the purpose of determining the geotechnical information required to design the HDD. The entry and exit points of the HDD are well beyond the known limits of the Parsons Site. No additional work beyond the Stage 2 archaeology clearance at the two borehole locations is planned in proximity to the Parsons Site. With respect to the archaeological materials in proximity to the Parsons Site that were recovered while undertaking initial Stage 2 test pitting, the finds are identified as five small (<1cm diameter) body sherds (pottery) and one small (<1cm) Onondaga chert flake fragment. These finds are currently housed at the Past Recovery firm. The Past Recovery firm recommends that the artifacts be combined with the existing Parsons Site artifacts recovered in previous assessments. The Past Recovery firm recommends that the finds be included in the Parsons Site, and, as such, will slightly alter the site limits and buffers. Site limit changes will be confirmed with NHW and MTCS. In response to these finds, Imperial provided the Parsons Site memo (Attachment 5) to NHW on July 7, 2019, which identifies Imperial's plans to relocate two boreholes planned in proximity to the Parsons Site.

Imperial appreciates the MENDM's attention to this matter and would be pleased to address any questions from the MENDM.

Sincerely,



Jessie Malone, P.Eng
Environmental and Regulatory Advisor

Cc. Maxime Picard, Ontario Projects Coordinator, NHW maxime.picard@cnhw.qc.ca
Andrea Williams, Archaeology Review Officer, MTCS andrea.williams@ontario.ca

Attachments:
Attachment 1 – Imperial's interrogatory responses to NHW's specific requests
Attachment 2 – Summary of recent engagement
Attachment 3 – Recent concerns/requests and responses
Attachment 4 – HDD installation
Attachment 5 – Parsons Site memo

ROC3455b Attachment (34 pages)

Attachment 1 - Imperial's interrogatory responses to NHW's specific requests

54. HWN-1

54.1 Reference

Exhibit D, Tab 1, Schedule 1

54.2 Preamble

The Ontario Energy Board's Environmental Guidelines for the Location, Construction, and Operation of Hydrocarbon Pipelines and Facilities in Ontario ("OEB Environmental Guidelines") requires proponents to evaluate alternative pipeline routes and to assess the impacts of each alternative route, including impacts on the social and cultural components of the environment.

The OEB Environmental Guidelines provide that assessment of the impact of a proposed project on cultural heritage resources should inform decisions in the pipeline development planning stage, and requires that proponents demonstrate due diligence by protecting cultural heritage resources by appropriate conservation, avoidance and mitigation.

54.3 Information Request

a. Please provide all evidence that Imperial Oil Ltd. ("Imperial") and/or its consultant(s) considered and developed assessments of alternative routes, including, but not limited to:

   i. evaluating impacts on the Huron-Wendat Nation's inherent and treaty-based right to the integrity of its archaeological and burial sites;

   ii. evaluating impacts on the important Huron-Wendat Nation archaeological site known as the Parsons Site (AkGv-8) (the "Parsons Site"), specifically;

   iii. assessing impacts of route evaluation and selection, construction, and operation on cultural heritage features, including the Parsons Site; and

   iv. assessing appropriate avoidance and mitigation of impacts to archaeological sites, including the Parsons Site.

b. Please provide any such reports, evaluations and assessments.

54.4 Imperial Response

a.

   i Imperial recognizes the significance of archaeological and burial sites to HWN. The Stage 1 archaeological assessment report (Past Recovery 2019) was used by Imperial to identify known archaeological sites and cultural heritage resources within the proposed Project footprint to evaluate potential impacts to these resources and evaluate alternative routes and/or mitigation measures. As the Stage 2 archaeological assessment progresses and additional sites within the Project footprint are identified, Imperial will continue to evaluate the pipeline route and/or mitigation measures for each site. As part of its commitment to consultation and engagement for the Project, Imperial will continue to seek input from HWN regarding recommendations for mitigation of impacts to archaeological resources.

   ii Following Imperial's review of the Stage 1 archaeological assessment report (Past Recovery 2019), which identified the Parsons Site as a significant archaeological site, Imperial considered mitigation measures to avoid impacts to the Parsons Site. An alternate route was evaluated as part of the Environmental Report (Section 2.6), which would have avoided the Parsons Site. However, based on design, environmental and socioeconomic considerations

and constraints, the alternative route was deemed not feasible. Therefore, a plan for avoiding impacts to the Parsons Site during construction and operation through the use of HDD trenchless technology pipeline installation methods is being developed and will be provided to the HWN for review and comment.

iii A similar process as outlined in part ii. above will be used to assess impacts of the route on any other cultural heritage feature within the Project footprint, as necessary.

iv As discussed above, Imperial will continue to consider and develop appropriate avoidance and mitigation measures for the Parsons Site and other archaeological sites within the Project footprint in consultation with Indigenous communities, including HWN.

b. Imperial refers the reader to the following reports:

- Waterdown to Finch Project Environmental Report (ERM 2019), and
- Stage 1 Archaeological Assessment for the Proposed Waterdown to Finch Project (Past Recovery 2019).

In addition to the above listed reports, Imperial and its consultants are currently drafting an Archaeology Site Avoidance Strategy. This will be provided to all Indigenous communities for review and comment.

55. HWN-2

55.1 Reference

Exhibit D, Tab 1, Schedule 2

Exhibit E, Tab 1, Schedule 2

Environmental Report at 5.4.7, page 5-32

55.2 Preamble

Imperial's Environmental Report, which is a component of the Leave to Construct Application, states that Imperial will endeavour to avoid known archaeological sites to the greatest extent possible through routing evaluation and maintenance of appropriate buffers; that trenchless installation methods will be used to mitigate impacts to known archaeological sites, (e.g. the Parsons Site); and where mitigation measures are not achievable, will undertake Stage 3 and potentially Stage 4 Archaeological Assessments prior to construction.

55.3 Information Request

a. Please provide Imperial and/or its consultants' research, evaluations, assessments and reports regarding:

   i. the Parsons Site's location, depth, width, and length, including any research, evaluations, assessments and reports regarding uncertainty on any of these items;

   ii. the expanse or length for which Imperial intends to use trenchless installation in the vicinity of the Parsons Site, and how Imperial determined the appropriate expanse or length;

   iii. potential impacts of trenchless installation on the Parsons Site, including the potential impacts of associated vibration and soil disturbance; and

   iv. the feasibility of the trenchless installation method for the area of the Parsons Site, including any and all engineering reports.

b. Please provide Imperial and/or its consultants' research, evaluations, assessments and reports regarding what constitutes an appropriate buffer area for archaeological sites, including for the Parsons Site.

c. Please outline what Imperial intends to use as an appropriate buffer area for archaeological sites, including for the Parsons Site, and its rationale for this determination.

d. Please outline how Imperial will determine whether it is necessary to conduct Stage 3 and/or Stage 4 Archaeological Assessments, including how Imperial will assess mitigation and avoidance opportunities such as routing changes, including Imperial's plans for engagement, consultation and accommodation of affected First Nation(s).

e. Please outline Imperial's plans for conducting Stage 3 and/or Stage 4 Archaeological Assessments in the event that such assessments are necessary, including details on:

   i. involvement of First Nation monitors;

   ii. how Imperial will use the information gathered through the participation of First Nation monitors;

   iii. how Imperial will provide up-to-date information, including information gathered through the participation of First Nation monitors, to the participating First Nation(s);

iv. how Imperial will involve First Nation(s) in reviewing and commenting on the Stage 3 and/or Stage 4 Archaeological Assessment reports;

v. how Imperial will advise First Nation(s) of any responses from the Ministry of Tourism, Culture and Sport ("MTCS") on the Archaeological Assessment reports filed with it;

vi. how Imperial will ensure that any artifacts recovered in the course of Stage 3 and/or Stage 4 Archaeological Assessment work are appropriately stored and/or returned to the affected First Nation, where applicable; and

vii. how Imperial will ensure that First Nation(s) have the opportunity and capacity funding to complete any ceremonies necessary due to the Stage 3 and/or Stage 4 Archaeological Assessment work.

55.4 Imperial Response

a.

i. The Parsons Site is situated on the main terrace above the east bank of Black Creek, extending across and to the north and south of the HONI corridor. Although there have been numerous excavations on the Parsons Site going back to the 1950s, only a small portion of the village has been systematically excavated and reported on. As such, the full extent of the site remains unknown. The most recent detailed site mapping suggests that the main village (as defined by the palisade walls) is approximately 385 m NNW-SSE and approximately 250 m WSW-ENE (see b below for relevant reports). The 1989-1990 excavations identified the western palisade partway down the slope above Black Creek. The deepest feature identified in 1989-1990 was c. 65 cm deep.

ii. The Project will use an approximately 1 km long horizontal directional drill to cross below the Parsons Site. Recognizing the significance of the Parsons Site, Imperial has planned to extend the HDD from the west side of Black Creek to the east side of Sentinel Road resulting in a c. 400 m buffer to both the east and west of the Parsons Site as defined by the village palisade and identified middens. This buffer will be reconsidered if required based on the results of the completed Stage 2 assessment.

iii. To complete the trenchless installation of the pipeline, Imperial and its construction contractor will be using the latest drilling technologies and best practices including accurate steering and modern fluid mixing systems. This will reduce the likelihood of potential impacts associated with HDD trenchless technology. Any vibration would be at the location of the drilling rig which will be located at a distance from the Parsons site.

iv. Based on preliminary geotechnical data, Imperial has determined that trenchless installation is feasible near the Parsons site. This preliminary geotechnical data will be supplemented by site-specific geotechnical investigations that will inform the engineering design of the drill. Once geotechnical investigations have been completed, the engineering report will be shared with HWN.

b. Appropriate archaeological site buffers are defined in the Standards and Guidelines for Consultant Archaeologists (MTCS 2011). Following the completion of a Stage 2 archaeological assessment of a property, these include a 20 m protective buffer around the site as defined by positive Stage 2 test pits or surface finds with an additional 50 m monitoring buffer where any ground disturbing activities must be monitored by a licenced archaeologist. Following the completion of a Stage 3 archaeological assessment, the protective buffer for Indigenous Woodland village sites is a minimum 20 m and the protective buffer for other sites is 10 m.

Imperial recognizes that these buffers may not be appropriate in all situations, especially when the site has not been subject to a comprehensive, systematic archaeological assessment, as is the case with the Parsons Site. As such, appropriate site buffers will be evaluated on a site-by-site basis and in consultation with First Nations and MTCS, as appropriate.

With respect to the Parsons Site, a review of previous archaeological assessments associated with the site was undertaken as part of the archaeological assessment process for this Project. This included a review of the following reports:

Archaeological Services Inc.

1990. Mitigation of the Parsons Site (AkGv-2) Interim Report. Report on file, ASI office, Toronto.

1989. Final Report for an Archaeological Resource Assessment of the Water Main Route from Richview Pumping Station to Keele Reservoir. Report on file at ASI office, Toronto.

URS Canada Inc. (URS)

2015. Report on the Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8) City of Toronto Multi-Use Pathways Project, Municipal Class Environmental Assessment, City of Toronto, Ontario. Report on file, Ontario Ministry of Tourism, Culture and Sport, Toronto.

2013. Stage 2 Archaeological Assessment: City of Toronto Multi-Use Pathways Project (Revised). Report on file, Ontario Ministry of Tourism, Culture and Sport, Toronto.

2011. Stage 1 Archaeological Assessment: City of Toronto Multi-Use Pathways Project (Revised). Report on file, Ontario Ministry of Tourism, Culture and Sport, Toronto.

Edited volume

1998. The Archaeology of the Parsons Site: A Fifty Year Perspective. Ontario Archaeology No. 65/66.

The most recent Site Registration Form for the Parsons Site filed with the MTCS following the URS Stage 4 mitigation of the pathway through the site delineates the site based on the location of the village palisade (and some recorded middens outside the palisade) and includes a 20 m protective buffer beyond these limits. Imperial recognizes that archaeological resources forming part of the Parsons Site are likely to occur beyond the palisade walls and the middens identified during previous archaeological investigations. At present, impacts in close proximity to the Parsons Site are limited to two boreholes required for geotechnical information in support of the development of the HDD plan.

Additionally, Imperial recognizes that ossuaries are often associated with Indigenous village sites and that these, and indeed any burials, are of particular concern to First Nations. In general, the Project recognizes a one kilometre (1000 m) buffer surrounding village sites as an area of high potential for ossuaries. All areas of the TWS within 1 km of the known Parsons Site boundary will be shovel tested to determine if cultural materials are present. During construction, archaeological and First Nations monitoring of construction of the Project will be undertaken between Jane Street and KeeleStreet. Construction excavation will involve the careful removal of the sod and topsoil and/or fill deposits using an excavator with a smooth-edged ditching bucket. This will be followed by hand "shovel-shining" of the exposed subsoil to check for archaeological features. Areas of fill clearly associated with deep disturbance (existing underground utilities) and areas already cleared of archaeological concerns would be excluded from shovel-shining.

c. As outlined above, appropriate site buffers will generally follow MTCS Standards, but will be determined on a case by case basis. For the Parsons Site, given the uncertain limits for the site,

Imperial is seeking to extend the HDD from the west side of Black Creek to the east side of Sentinel Road resulting in a c. 400 m buffer to both the east and west of the Parsons Site as defined by the village palisade and identified middens. This buffer will be reconsidered if required based on the results of the completed Stage 2 assessment.

d. The Standards and Guidelines for Consultant Archaeologists (MTCS 2011) provide criteria for determining when archaeological finds require further assessment through Stage 3 and/or Stage 4 assessments. These criteria include the number and nature of artifacts recovered, their context, and the presence of archaeological features. While following these criteria, recommendations for Stage 3 and/or Stage 4 assessments of Indigenous sites will be made in consultation with appropriate First Nations through the continued consultation and engagement process.

   A Stage 4 assessment may include mitigation of a site through excavation and/or avoidance and protection. Imperial recognizes that site avoidance and protection is generally the preferred mitigation approach and will seek to implement this approach wherever feasible.

e.

   i. Imperial will continue to include First Nation monitors in the archaeological assessment fieldwork for the Project, including for any Stage 3 and/or Stage 4 assessments undertaken on sites with Indigenous concerns.

   ii. Imperial values the information provided by the First Nation monitors participating in the fieldwork and their comments, insights and concerns are shared with personnel on-site and recorded in daily field records. Information from First Nation monitors is considered in guiding fieldwork methods and in developing appropriate assessment strategies.

   iii. Imperial is committed to ongoing engagement with Indigenous communities, including HWN regarding the Project throughout consultation and construction. Updates on the Stage 3 and/or Stage 4 Archaeological Assessments will be provided in addition to other communication between Imperial and the Indigenous communities, including HWN. It is Imperial's opinion that communication has been effective. Imperial is open to HWN's suggestions on improvements.

   iv. Imperial will provide First Nations with draft copies of all archaeological assessment reports, including Stage 3 and Stage 4 assessments, for their review and comment prior to or in parallel to these reports being submitted to MTCS.

   v. Imperial will provide First Nations with copies of the final archaeological assessment reports as accepted by MTCS and with copies of the MTCS review letters for these reports.

   vi. According to the *Ontario Heritage Act* and the MTCS Standards and Guidelines for Consultant Archaeologists (MTCS 2011), the archaeologist under whose licence an archaeological assessment is undertaken is required to appropriately store all materials (artifacts, field records, etc.) until they can be transferred to a government approved cultural facility. Collections arising from any archaeological assessments undertaken as part of the Project will be properly maintained by the archaeologist until an appropriate transfer has occurred. Imperial will work with the First Nations to return all collections of Indigenous concern to the appropriate community and/or deposited in an appropriate cultural facility. This will include filing the appropriate paperwork with MTCS.

   vii. To date, Imperial has been providing capacity funding to Indigenous communities, including HWN for Project engagement, including archaeology field monitor participation, archaeology report reviews and meeting travel costs. If Indigenous communities, including HWN, identify additional specific capacity funding requirements relevant to Project engagement and consultation, including ceremonies at the site, Imperial is open to considering reasonable requests.

56. HWN-3

56.1 Reference

Exhibit E, Tab 1, Schedule 6

Exhibit D, Tab 1, Schedule 4

56.2 Preamble

Imperial plans to commence construction in the fourth quarter of 2019. Stage 2 Archaeological Assessment work is currently ongoing.

56.3 Information Request

a. Please outline how affected First Nation(s) will be involved in reviewing and commenting on the Stage 2 Archaeological Assessment report.

b. Please provide the date by which Imperial will file the results of the Stage 2 Archaeological Assessment and indicate whether and when Imperial expects to receive comments from MTCS with regard to this Assessment.

c. If archaeological sites are identified through the Stage 2 Archaeological Assessment, please identify what steps Imperial will take to ensure that appropriate avoidance or mitigation measures are taken to protect the sites, including what steps Imperial will undertake with respect to consultation and accommodation of First Nation(s).

d. If such avoidance or mitigation measures will impact the project schedule, please identify how Imperial will adapt its schedule to ensure that the appropriate avoidance and/or mitigation measures are undertaken.

56.4 Imperial Response

a. Imperial will provide the affected First Nations with a draft of the Stage 2 archaeological assessment report for review and comment prior to or in parallel to submitting the report to MTCS.

b. The date for filing the Stage 2 archaeological assessment is dependent on the completion of the Stage 2 archaeological fieldwork and the associated analysis and reporting time required to complete the report. MTCS report review times are typically a minimum of 60 business days from the date of report submission assuming that an expedited report review has been approved by MTCS.

c. In advance of completing the full Stage 2 archaeological assessment report, Imperial is preparing interim summary reports for archaeological findspots/sites found. These reports will include information on the nature of the finds, mapping and recommendations for any further archaeological assessment (including avoidance and protection). The interim reports will be provided to the First Nations for their review and comment as part of ongoing consultation and engagement. Consultation and engagement will help inform the preparation of final recommendations for site mitigation to be included in the full Stage 2 archaeological assessment report.

d. The schedule will be adjusted to allow for archaeological concerns to be addressed. This will include meeting all MTCS requirements and undertaking appropriate consultation and engagement with the First Nations.

57. HWN-4

57.1 Reference

Exhibit G, Tab 1, Schedule 1

57.2 Preamble

Imperial's Guiding Principles include that "in areas where Imperial operates, Indigenous communities are engaged through consultation, employment and business development and educational program investments."

57.3 Information Request

a. Please outline the employment, business development and educational program investment activities Imperial will undertake with the Huron-Wendat Nation.

57.4 Imperial Response

a. Imperial is currently considering the construction contracting strategy for the Project and will share more information as it becomes available. Indigenous community businesses, including HWN businesses may pursue sub-contracting opportunities directly with Imperial's general contractor and Imperial shall facilitate and assist in such discussions, if requested by HWN. Also, Imperial will provide resources relevant to general business opportunities.

   Imperial is open to considering sponsorship and capacity building opportunities with communities. Please direct HWN's requests to the Project Community Liaison Officer.

58. HWN-5

58.1 Reference

Exhibit G, Tab 1, Schedule 1

Exhibit H, Tab 2, Schedule 5

58.2 Preamble

Imperial's Guiding Principles include that "Imperial endeavours to understand Indigenous perspectives on issues of mutual interest, to deal constructively with differing viewpoints and to engage Indigenous communities and their representatives in open and forthright consultation. Imperial maintains an open and ongoing dialogue about the Project with Indigenous leaders, community members and their designated representatives by: respecting traditional practices, decision-making processes...[and] cultural activities…"

58.3 Information Request

a. Please outline Imperial's understanding of the Huron-Wendat Nation's traditional practices with respect to the protection of archaeological and burial sites, such as the Parsons Site.

58.4 Imperial Response

a. Following the direction in MENDM's September 10, 2018 letter to Imperial outlining the delegation of the Duty to Consult, Imperial has been consulting Indigenous communities.

   The HWN Engagement Summary tables in Appendix 11 outline the information provided by Huron-Wendat Nation regarding traditional practices with respect to the protection of archaeological and burial sites, such as the Parsons site and the discussions between HWN and Imperial regarding the Parsons site and protection of archaeological and burial sites.

   Imperial continues to consider this information in discussion of appropriate mitigation measures with HWN. If HWN has additional information to provide or if Imperial has misunderstood information provided, Imperial is open to considering further input.

59. HWN-6

59.1 Reference

Exhibit G, Tab 1, Schedule 1

59.2 Preamble

Imperial states that as new information arises throughout the consultation process, Imperial will consider the information received and incorporate changes into project design, as appropriate.

Imperial is aware that the Parsons Site has recently been disturbed by the Project work being undertaken.

59.3 Information Request

a. Please provide all evidence that Imperial and/or its consultant(s) has considered and developed assessments of project design changes, including alternate routing options, in response to the recent disturbance to the Parsons Site.

b. Please provide all research, evaluations, assessments and reports regarding possible project design changes, including alternate routing options, relating to this event.

c. Please provide any and all correspondence between MTCS and Imperial regarding the disruption of the Parsons Site.

59.4 Imperial Response

a. Given the significance of the Parsons Site, Imperial has proposed an increased certainty of avoidance of the Site by designing the HDD entry location to the east side of Sentinel Road, placing it c. 400 m east of the documented location of the eastern palisades for the village. By placing the HDD entry at this location, it is proposed, in addition to avoiding impact to the modern infrastructure, the potential of impacting this archaeological site is reduced. Confirmation that the HDD entry location does not hold further archaeological potential will be completed through appropriate archaeological field assessments prior to construction.

   The current avoidance measures to be implemented by the Project is the use of HDD trenchless technology. Imperial understands that both MTCS and the First Nations communities have concerns associated with the use of HDD trenchless technologies resulting in impacts to unassessed sites.

   To address these concerns related to HDD trenchless technologies and to avoid impact to archaeological sites, this strategy will be refined in coordination with site-specific, detailed engineering to confirm that identified concerns are addressed. Of particular consideration will be the depth of the HDD as it extends from the entry/exit points.

   The archaeological assessment will be conducted along the centreline to a distance of 50 m inside of the HDD entry and exit to identify any archaeological sites in the shallowest areas of the HDD. Pending final design, it is expected that the pipeline will be more than 10 m deep beyond 50 m along the HDD path, thereby reducing risk of frac-out, slumping, and pipeline discharge to surface. During operations, in the unlikely event of an integrity issue with the pipeline in an area installed using HDD trenchless technology, the section of the pipe would be isolated and abandoned, , and a new pipe would be installed using HDD trenchless technology.

   The proposed Borehole 136 is located in close proximity to the Parsons Site. Past Recovery, ERM and Imperial propose moving Borehole 136 from its originally planned location approximately 23 m west on to the previously assessed pathway. At this proposed location, the

geotech rigs would bore through the cement pathway and extend into an area clear of archaeological concern. The pathway was assessed by URS Canada archaeologists in 2011 through Stage 4 construction monitoring. The assessment removed all topsoil with a Link-Belt 210 excavator equipped with a smooth ditching bucket. The area was subsequently shovel-shined to confirm no cultural features or archaeological resources were present in the subsoil. The report concluded that the pathway and the soil underneath is considered clear of any further archaeological concern.

b. The following two reports are currently being developed and will be provided to all Indigenous communities for review:

Archaeology Site Avoidance Strategy Memo

Parsons Site – Borehole Assessment Update

c. The results of the Stage 2 assessment, including the limited test pitting that was done at the Parsons Site for the original location of BH136 (described above) will be fully reported on in the Stage 2 report. To date, there has been no correspondence with MTCS regarding this event.

60. HWN-7

60.1 Reference

Exhibit D, Tab 1, Schedule 2

Environmental Report at 7, p. 7-4

60.2 Preamble

Imperial states in its Environmental Report that a "Chance Find" Archaeological Resources Contingency Plan will be implemented if unknown archaeological resources are discovered during construction.

60.3 Information Request

a. Please provide any drafts of this plan that Imperial has created to date, and/or, if Imperial intends to base this plan on an existing plan for another project, please provide copies of said plan.

b. Please outline the steps that Imperial will take with respect to consultation and accommodation of First Nation(s) in the development and implementation of the "Chance Find" Archaeological Resources Contingency Plan.

c. Please outline the training that Imperial intends to provide its construction crews in order to ensure that personnel on site can identify artifacts, such that the "Chance Find" Archaeological Resources Contingency Plan protocols will be initiated.

d. Please outline the steps Imperial will take in the event that artifacts are uncovered during construction, including the steps that Imperial will take with respect to:

   i. temporary and permanent storage of artifacts;

   ii. return of artifacts to affected First Nation(s); and

   iii. provision of the opportunity and capacity funding to First Nation(s) to perform any necessary ceremonies at the site.

60.4 Imperial Response

a. Prior to construction, Imperial will develop a Project-specific Chance Find Heritage Resources Contingency Plan to be implemented during the construction phase of the Project. Imperial is in the process of drafting this plan and can commit to providing it to First Nation communities for review and comment once available.

b. Imperial is committed to providing the draft "Chance Find" Heritage Resources Contingency Plan to HWN and the other Indigenous communities. Imperial will consider HWN and the other communities' input and update the protocol and/or provide responses, as appropriate.

c. Employees and on-site personnel/contractors will receive site orientation and training regarding compliance with the Project's "Chance Find" Heritage Resources Contingency Plan. All new employees will receive site orientation and training during their induction and the training will focus on the procedure in place for responding to newly identified sites and how to report these sites or observed site impacts. Training records will be kept and maintained.

d.

   i. Please refer to Imperial's response to ii. below.

ii. As discussed above in response to HWN-2, as required by the *Ontario Heritage Act* and the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011), Imperial's licenced consultant archaeologist(s) will be responsible for the temporary storage of all artifacts for the Project until an approved permanent has been identified and the collection transfer has been finalized. Imperial and its licenced consultant archaeologist(s) will consult with the First Nations to confirm the appropriate permanent disposition of all artifacts and, where appropriate, their return to the affected First Nation.

iii. To date, Imperial has been providing capacity funding to Indigenous communities, including HWN for Project engagement, including archaeology field monitor participation, archaeology report reviews and meeting travel costs. If Indigenous communities, including HWN, identifies additional specific capacity funding requirements relevant to Project engagement and consultation, including ceremonies at the site, Imperial is open to considering reasonable requests.

61. HWN-8

61.1 Reference

Exhibit D, Tab 1, Schedule 4

61.2 Preamble

Stage 2 Archaeological Assessment work is currently underway. The Standards and Guidelines for Consultant Archaeologists (MTCS 2011) recommends that such work be undertaken through test pits.

The Standards and Guidelines for Consultant Archaeologists (MTCS 2011) recommends that such test pits be dug to 5 cm below the subsoil.

Huron-Wendat ossuaries are typically found well below these levels, with the most visible signs (the presence of bones) visible from anywhere between 20 cm to over 2 m below the subsoil.

61.3 Information Request

a. Please outline the steps that Imperial will take to detect ossuaries in the Project area.

b. Please outline the training that Imperial will provide, or require to be provided, to its archaeological consultant on the detection of Huron-Wendat ossuaries.

c. Please outline the training that Imperial will provide to its construction crews on how to respond in the event that bones are uncovered.

d. Please outline what steps Imperial will take in the event that bones are uncovered during construction, including consultation and accommodation of First Nation(s).

e. In the event that a Huron-Wendat ossuary is found in the Project area, please outline the steps that Imperial will take to:

    i. consult with the Huron-Wendat Nation on appropriate protection and preservation measures for the site;

    ii. implement such protections and preservation measures in order to avoid disturbance of the ossuary;

    iii. ensure that the Huron-Wendat Nation is able to perform any necessary ceremonies relating to the ossuary, including by providing capacity funding; and

    iv. commemorate the ossuary in a manner deemed appropriate by the Huron-Wendat Nation.

61.4 Imperial Response

a. Wherever feasible, Stage 2 test pits are being dug into sterile subsoil with the subsoil carefully examined to confirm that there is no indication of disturbance indicative of a feature, including an ossuary pit, within the subsoil. Where compact fill deposits prevent hand excavated test pits from reaching subsoil, alternative assessment methodologies (including the use of mechanical excavation) will be considered and implemented, as appropriate.

b. The archaeological assessment work of the Projectis under the direction of licenced consultant archaeologists and, as required by MTCS, the field directors are also licenced (either P- or R-licences). The field crew are not required to be licenced, however have a range of experience (from limited to more than 20 years of fieldwork) and are under the direct supervision of the licencees. Licenced consultant archaeologists in Ontario are required to have a combination of academic training and extensive field, analysis and reporting experience on Stage 1 through

Stage 4 assessments of a variety of sites. The recognition of sub-soil cultural features, including ossuaries, is an essential part of this training and experience.

During construction, if bones or ossuaries are identified the Huron-Wendat Nation will be notified in accordance with the Heritage Resources Contingency Plan.

c. A "Chance Find" Heritage Resources Contingency Plan will be prepared and followed in the event that bones (or other potential heritage resources) are uncovered during construction. On-site personnel will receive site orientation and training regarding compliance with the Plan.

d. Both the *Ontario Heritage Act,* and the *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) include specific protocols to be followed in the event that human remains are uncovered either during the course of an archaeological assessment or by accident during construction or other activities. These include an immediate cessation of work, securing the area of the find and the notification of appropriate authorities (police, coroner, Registrar of Cemeteries, etc.) to determine whether the finds constitute a crime scene. If the finds are determined not to constitute a crime scene, the Registrar of Cemeteries will institute an investigation, typically including a licenced archaeologist. If there is any indication that the remains may be Indigenous, appropriate First Nations must be notified immediately of the find and involved in the mitigation of the find.

e.

i. Imperial will follow the requirements of the *Ontario Heritage Act a*nd the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, C. 33 and engage with the relevant Indigenous communities.

ii. The person in charge of the work shall immediately contact MTCS, the Cemeteries Regulation Unit of the Ontario Ministry of Consumer Relations, the appropriate municipal police, the local coroner, and Imperial's archaeologist, if applicable. All excavation and other activity that could disturb the site shall immediately cease, and the area shall be secured in a manner which protects the site location and prevents public access and trespass.

iii. To date, Imperial has been providing capacity funding to Indigenous communities, including HWN for Project engagement, including archaeology field monitor participation, archaeology report reviews and meeting travel costs. If Indigenous communities, including HWN, identifies additional specific capacity funding requirements relevant to Project engagement and consultation, including ceremonies at the site, Imperial is open to considering reasonable requests.

iv. Imperial is open to considering reasonable requests to commemorate an ossuary, should the situation arise.

62. HWN-9

62.1 Reference

Exhibit D, Tab 1, Schedule 3

Exhibit D, Tab 1, Schedule 2

Environmental Report at 7, p. 7-2

62.2 Preamble

Imperial intends to develop a Spill Prevention and Response Plan to provide the Project with guidance in the development of prevention, contingency planning, and reporting practices for the timely and effective prevention and response to potential inadvertent, construction-related releases to land and surface water.

Imperial also intends to develop an Environmental Protection Plan and several management and contingency plans.

62.3 Information Request

a. Please advise whether Imperial intends to develop an emergency response plan to mitigate and manage potential impacts of a spill on archaeological sites, including the Parsons Site.

   i. If Imperial does not intend to do so, please provide Imperial's rationale;

   ii. If Imperial does intend to do so, please provide any drafts of this plan that Imperial has created to date, and/or, if Imperial intends to base this plan on an existing plan for another project, please provide copies of said plan.

b. Please outline any consultation and accommodation steps undertaken by Imperial with First Nations with respect to the creation of an emergency response plan to mitigate and manage potential impacts of a spill on archaeological sites.

62.4 Imperial Response

a.

   i. Pertaining to the construction of the Project, Imperial will mitigate disturbance to known sites with Cultural Heritage Value or Interest (CHVI) through avoidance or Stage 3/4 archaeological assessment. Avoidance strategies for sites that retain CHVI will include, but are not limited to, realignment or utilization of trenchless installation methods such that there will be no surface activity within a known site with residual CHVI. Where trenchless crossings will be located, detailed geotechnical investigations are underway that will inform appropriate site-specific crossing design, including the HDD of the Parsons Site, such that the risk of inadvertent returns is negated. For these reasons, it is not Imperial's intent to develop an emergency response plan for potential impacts of a spill on archaeological sites during Project construction beyond the "Chance Find" Archaeological Resources Contingency Plan.

   ii. See response to (i).

b. Imperial has an Operational Emergency Response Plan in place for the Sarnia Products Pipeline and is updating this plan for the operation of the Project. Imperial will share the plan with Indigenous communities. The Indigenous community component of the plan is still being developed and Imperial intends to engage with Indigenous communities, including HWN to

develop a notification protocol in the event of an incident on the SPPL. Additionally, Imperial is developing a Spill Prevention and Response Plan for Project construction and Imperial will engage Indigenous communities, including HWN in its development related to potential impacts of a spill on archaeological sites.

63. HWN-10

63.1 Reference

Exhibit G, Tab 1, Schedule 1

63.2 Preamble

Imperial's Guiding Principles include that Imperial conducts its business in a manner that respects the land, environment, rights and cultures of indigenous communities.

63.3 Information Request

a. Please advise how Imperial will ensure that the Huron-Wendat Nation is able to fulfill its duty to protect its archaeological and burial sites throughout the Project's construction, including:

   i. How Imperial will ensure that Huron-Wendat Nation monitors are involved in monitoring construction work throughout the Project's construction;

   ii. How Imperial will advise the Huron-Wendat Nation of the construction schedule and any changes to the construction schedule;

   iii. How Imperial will use the information gathered through the participation of Huron-Wendat Nation monitors; and

   iv. How Imperial will provide up-to-date information, including information gathered through the participation of Huron-Wendat Nation monitors, to the participating First Nation(s).

63.4 Imperial Response

a.

   i. Imperial is open to considering the involvement of Indigenous monitors, including Huron-Wendat Nation monitors in monitoring construction work throughout the Project's construction. After Indigenous communities, including Huron-Wendat Nation, and Imperial come to a reasonable agreement regarding the participation of monitors, Imperial will follow a similar approach to the current engagement facilitating monitor participation in Project field work to confirm involvement.

   ii. After Indigenous communities, including Huron-Wendat Nation and Imperial come to a reasonable agreement regarding the participation of monitors, Imperial will follow a similar approach to the current engagement facilitating monitor participation in Project field work to advise Indigenous communities, including Huron-Wendat Nation of the construction schedule and any changes to the construction schedule. Imperial is committed to ongoing engagement with Indigenous communities, including HWN regarding the Project throughout consultation and construction. It is Imperial's opinion that communication has been effective. Imperial is open to suggestions on improvements.

   iii. After Indigenous communities, including Huron-Wendat Nation and Imperial come to a reasonable agreement regarding the participation of monitors, Imperial will follow a similar approach to the current engagement facilitating monitor participation in Project field work to consider the information gathered through the participation of monitors. The current approach focuses on resolution of monitor input, comments and concerns in the field, i.e., if monitors have archaeology requests, the request is discussed and addressed through collaboration between the monitors and archaeology field directors and field work continues with potential changes or a shared understanding of methodology based on that discussion. In cases

where monitors and archaeology field directors are not able to address requests with mutually-acceptable solutions in the field, requests are directed to Imperial and Imperial and the Indigenous community consultation office representatives discuss the request and work to identify appropriate resolution.

iv. Imperial is committed to ongoing engagement with Indigenous communities, including HWN, regarding the Project throughout consultation and construction. It is Imperial's opinion that communication has been effective. Imperial is open to suggestions on improvements.

Attachment 2 – Summary of recent engagement

- July 3, 2019 – NHW noted that artifacts have been recovered near the Parsons Site during the Stage 2 archaeology field work and that the site may be in the middle of a longhouse. NHW advised that they would need to bring the situation to the Chief's Council to discuss next steps, and requested that archaeological field work near the Parsons Site be put on hold pending further discussion with Imperial. Imperial accommodated this request and stopped work at the locations identified.
- August 7, 2019 – Imperial provided a memo regarding the Parsons Site and the recent pre-disturbance investigations (Attachment 5) and requested that NHW review and comment. NHW responded that they will not be commenting on this memo until an agreement regarding appropriate compensation is in place.
- September 4, 2019 - NHW issued a letter to Minister Rickford stating concerns about Imperial's Waterdown to Finch Project, specifically related to the protection and preservation of the Parsons Site.
- September 9, 2019 – Imperial received a letter from NHW addressed to Rich Kruger, Imperial Chairman, President and CEO, dated August 28, 2019, stating concerns about Imperial's Waterdown to Finch Project, specifically related to the protection and preservation of the Parsons Site; citing Imperial's commitment to Indigenous engagement; and requesting that Imperial engage in more meaningful conversations with NHW, including a discussion of appropriate compensation and a meeting in Wendake.

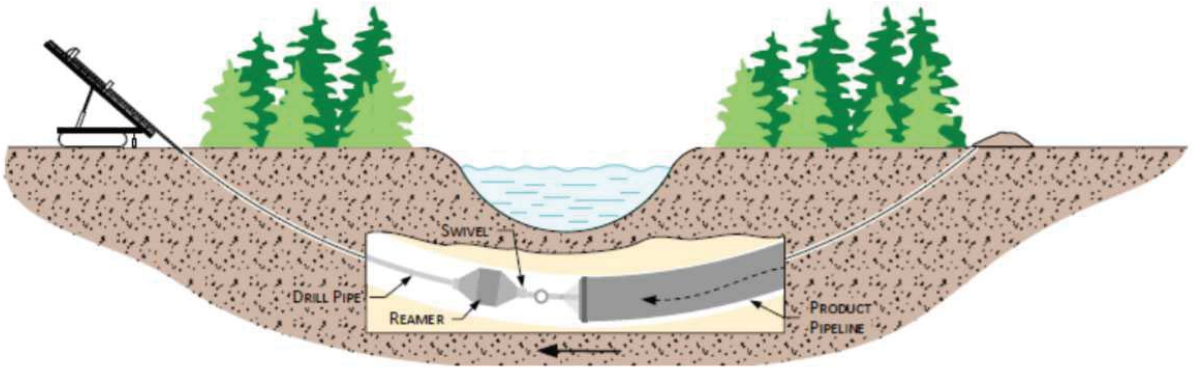
Attachment 3 - Recent concerns/requests and responses

- NHW requested that Imperial work with NHW to determine when MTCS Standards and Guidelines should be exceeded.
    - Imperial committed to meeting MTCS Standards and Guidelines for Project archaeology. With respect to archaeology work that exceeds MTCS Standards and Guidelines, Imperial is committed to ongoing engagement with NHW and to date has provided the responses below indicating how Imperial intends to do so. Imperial has provided the Project Stage 1 archaeology assessment report to NHW for review and intends to continue this practice for Stage 2 and potential Stage 3 and Stage 4 reports.
- NHW requested that Imperial provide NHW with draft copies of all archaeological assessment reports for NHW's review and comment prior to submission to the MTCS
    - Imperial committed to providing NHW with draft copies of all Project archaeology assessment reports for NHW's review prior to or in parallel with Imperial's submission to MTCS.
- NHW requested that if archaeology resources are recovered at any time during construction, Imperial immediately notify NHW and work collaboratively with NHW to minimize impacts and ensure respectful treatment of any archaeological resources in accordance with the practices and values of NHW as identified by NHW.
    - Imperial committed that if archaeology resources are recovered at any time during construction, Imperial will: (i) notify NHW of such finding; (ii) engage a consultant archaeologist as per MTCS Standards and Guidelines; (iii) work collaboratively with NHW to minimize impacts to NHW's archaeology resources and to ensure the respectful treatment of any such resources; and, (iv) where permitted by the *Ontario Heritage Act* (the OHA) and the MTCS Standards and Guidelines, use best efforts to facilitate the return of such archaeological resources to NHW or deposit the same in an appropriate cultural facility.
- NHW requested that if at any time during construction human remains are encountered, the person in charge of the works immediately contact NHW and NHW's archaeologist. NHW requested that the Nation reserve the exclusive right to determine the requirements for treatment of human remains of NHW ancestry found at the site, including the procedures and ceremonies involved in their recovery, handling, protection or possible reburial. NHW advised that it may require protections for Aboriginal burial sites that exceed the requirements of the OHA and the *Funeral, Burial and Cremation Services Act* (the FBCSA).
    - Imperial committed that, if at any time during construction, human remains are encountered, the following steps will be taken consistent with MTCS Standards and Guidelines: (i) the person in charge of the work will immediately contact MTCS, the Bereavement Authority of Ontario of the Ontario Ministry of Government and Consumer Services, the appropriate municipal police, the local coroner, and the consultant archaeologist, if applicable; (ii) all excavation or other activity that could disturb the site will immediately cease, and the area will be secured in a manner that protects the site location and prevents public access and trespass; and (iii) Imperial will follow the requirements of the OHA and the FBCSA, and engage with the relevant Indigenous communities. Imperial will also notify NHW of such finding and Imperial and NHW will work collaboratively to minimize impacts to such findings and to ensure the respectful treatment of any such findings.
- NHW requested that protection of archaeology sites in-situ, regardless of size and regardless of the nature of the resources found within, is always the preferred option for mitigation of development impacts.
    - Imperial agreed that this is the preferred option.
- NHW requested that no archaeology sites of NHW origin will be excavated without the prior consent of NHW and without first coming to an agreement on the terms of any such excavation, including, but not limited to, the collection, storage and ownership of any resources and that, in the event of any impact to an archaeology site of NHW origin, whether planned and with the consent of NHW or by way of accidental discovery during archaeology testing or during construction, come to an agreement on appropriate measures of accommodation.

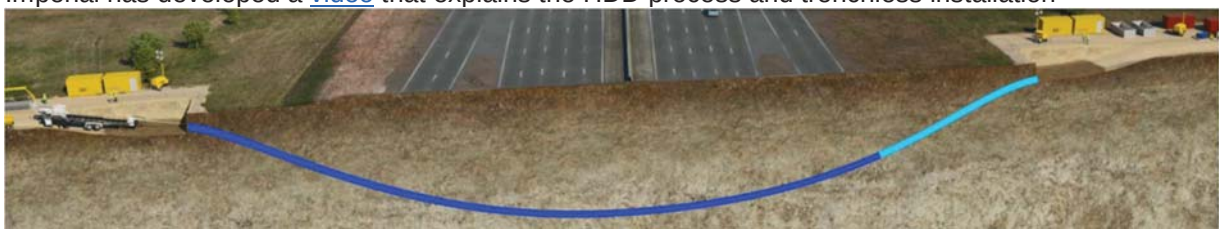
    - Imperial committed to follow MTCS Standards and Guidelines for sites with potential Indigenous evidence and engage affected Indigenous communities in the formulation of recommendations at the end of potential Stage 3 archaeology assessment and in the succeeding Stage 4 mitigation.
- NHW requested that Imperial and NHW negotiate an Emergency Response Plan (ERP) outlining how NHW will be notified, consulted and accommodated in the event of a leak or other unforeseen event associated with the Project that has potential impact to NHW Rights and Interests. As part of the ERP, NHW requested that Imperial provide an emergency reserve compensation fund to be operated by NHW. This emergency reserve fund would be used by NHW in the event of an impact to the Parsons Site by reason of a leak or other environmental incident associated with the Project.
    - Imperial responded that it recognizes that emergency response is important to NHW, especially in the area of the Parsons Site. Imperial has an ERP in place for the Sarnia Products Pipeline (SPPL), which Imperial offered to share with NHW for review. Imperial would like to engage with NHW to develop a notification protocol in the event of an emergency on the SPPL to incorporate into the ERP. Additionally, Imperial is developing a Spill Prevention and Response Plan for Project construction, and Imperial will engage Indigenous communities, including NHW, in its development related to potential impacts of a spill on archaeological sites.
- NHW requested that Imperial confirms its commitment to ensure that the Parsons Site specifically is impacted as minimally as possible by the Project, and to use trenchless HDD boring beneath the site to reduce such impacts.
    - A thorough explanation of the Parsons Site avoidance plans is provided in the body of this letter.

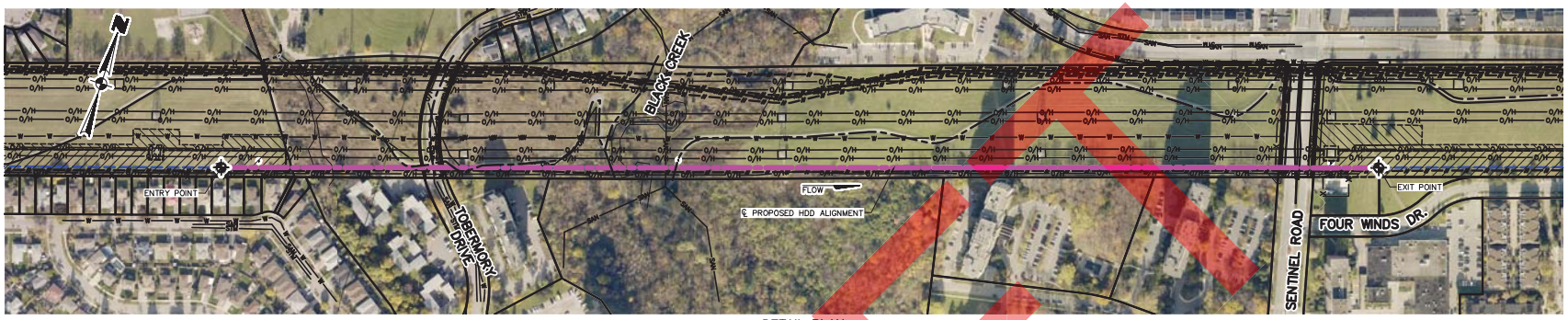
Attachment 4 – HDD installation

- HDD trenchless drilling uses a specific entry and exit point to install a stretch of pipeline underground while eliminating impact to above ground features whereby:
    - A pilot hole is drilled along a pre-determined path
    - The path is expanded to the required size
    - The pipe is then pulled along the drill path and connected
- The HDD trenchless drilling does not require surface access between the entry and exit points for construction, operations or maintenance.

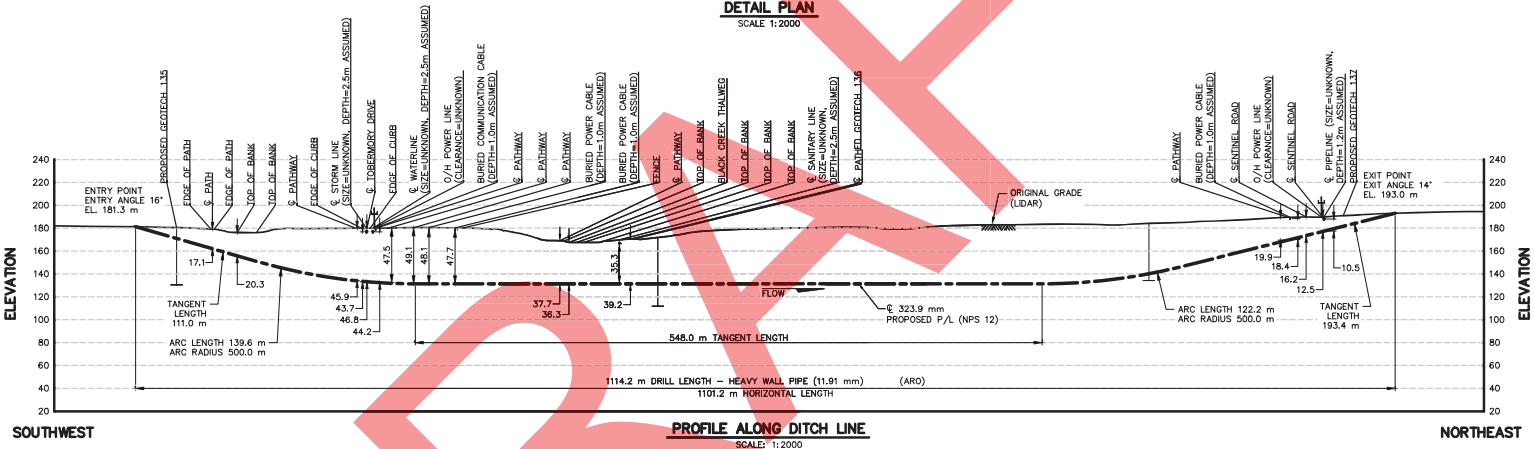


Imperial has developed a video that explains the HDD process and trenchless installation





DETAIL PLAN
SCALE 1:2000



PROFILE ALONG DITCH LINE
SCALE: 1:2000

LEGEND

- PROPOSED HDD ALIGNMENT
- PROPOSED NPS 12 PIPELINE
- FOREIGN PIPELINE

DRAFT
NOT FOR CONSTRUCTION

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DRAWN BY	AL
CHECKED BY	HMC
APPROVED BY	JAW

WATERDOWN TO FINCH PROJECT
BLACK CREEK/ PARSONS SITE
HDD CONCEPTUAL DRAWINGS
KP 60.3

SHEET SIZE	A1
SCALE	AS SHOWN
DATE	09/11/2019
DRAWING NUMBER	
SHT NO.	1 of 1
REV	A

Memo

To	James Watson (UPI); Jessie Malone (Imperial); Breanna Murillo (Imperial); Kelly Williams (Imperial)
From	Brenda Kennett (Past Recovery)
Cc	Jenna Down (ERM); Daniel Walker (ERM); Curtis Campbell (ERM); Nicole Bishop (ERM); Emma Bright (ERM)
Date	August 6, 2019
Subject	Parsons Site – Borehole Assessment Update

INTRODUCTION

This memo is prepared to address the recovery of archaeological materials in proximity to the Parsons Site while undertaking initial Stage 2 test pitting at the proposed location of borehole (BH) 136 and to present an alternate strategy to complete the geotechnical investigations required in the vicinity of the Parsons Site, particularly BH136, BH137 and BH135.

BH136

On July 3, 2019, the field crew began the Stage 2 assessment of the BH136 location at the Parsons Site. The plan was to excavate four shovel test pits placed at 5m intervals and centred on the stake marking the location for BH136 followed by a 1m x 1m unit directly over the borehole location. Work began with the excavation of the four test pits (Figure 1).

The Stage 2 assessment was carried out by Archaeological Services Inc. (ASI) on behalf of Past Recovery, the licenced archaeologist. The ASI field notes record the following:

- The two test pits south of the borehole showed a sandy loam topsoil (Layer 1) and beige silt (Layer 2) overlying a thin (5cm) layer of buried natural topsoil (Layer 3) and subsoil (Layer 4). No artifacts were recovered from these test pits. These negative test pits are designated on Figure 1 as single white dots located southwest and south east of BH136 pin (red triangle).
- The test pit northwest of the borehole showed a similar profile, but lacked Layer 3. One piece of pottery was recovered from Layer 1 in this test pit. This test pit is designated as ‘WPT2’ (Waypoint 2) on Figure 1.
- The test pit northeast of the borehole showed a sandy loam topsoil overlying a possible feature, and yielded 10 pieces of pottery and one flake. The potential feature consists of orange silt mottled with black silt and charcoal, and spanned the entire floor of the test pit at a depth of 30cm. This test pit is designated as ‘WPT1’ (Waypoint 1) on Figure 1.

WTP1

While 10 pieces identified as pottery were collected in the field, once cleaned and examined in more detail in the lab, five of these were determined to be small pieces of natural sandstone. Thus, the artifact collection from WPT1 consists of five small (< 1cm diameter) body sherds and one small (< 1cm) Onondaga chert flake fragment.

The excavation of WPT1 was stopped at the possible feature to prevent damage. As result, the test pit has not been fully excavated to subsoil. The context of the pottery sherds and lithic flake recovered from WPT1 is less clear owing to the presence of the partial feature and only being partially excavated.

WTP2

The single pottery sherd from WPT2 was found in the upper (modern) topsoil suggesting that it is in an unnatural, or secondary, context. WPT2 encountered subsoil at a depth of 30cm and was excavated 30cm into subsoil, and as such has been completed.

Following the discovery of the artifacts and the possible feature, the findings were discussed with the on-site archaeology monitors, Field Liaison Representative (FLR) and the Huron Wendat Nation (HWN) office. Based on this, it was mutually agreed that work at this location would cease until an additional strategy was developed.

BH136 Location

BH136 is situated on a gentle slope below the main terrace occupied by the Parsons Site village and above the east side of Black Creek. The BH is located approximately 20m west of the site's recorded limit and within 50m of a documented midden and palisade wall (Figure 2).

Figure 2 depicts the limits of two assessments from 1989-90 and 2013. The 1989-90 excavation was completed by ASI and associated with a watermain installation[4] while the 2013 excavation was completed by URS Corp. and associated with the construction of a multi-use pathway[5] (Figure 3). The placement of the BH is approximately 20m south and east of this pathway and approximately 10m south of the southern edge of the watermain trench (Figure 3 and Figure 4).

BH136 Recommendation

Past Recovery, Environmental Resource Management (ERM) and Imperial propose moving BH136 approximately 23m west on to the previously assessed pathway. The pathway was assessed by URS Canada archaeologists in 2011 through construction monitoring. The assessment removed all topsoil with a Link-Belt 210 excavator equipped with a smooth ditching bucket. The area was subsequently shovel shined to confirm no cultural features or archaeological resources were present in subsoil (see Figure 5). The report concluded that the pathway is considered clear of any further archaeological concern.

The proposed new location of Borehole 136, approximately 23m west of the current location, would bore through the cement pathway and extend into an area clear of archaeological concern (Figure 6). This would mitigate concern of impacts to the Parsons Site raised at the previous location with the artifacts and potential feature encountered by the ASI crew on July 3rd.

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[4] The c. 18m wide watermain trench across the Parsons Site was fully excavated by ASI in 1989-90 and Ontario Archaeology, Volume 65/66, 1998 provides a full discussion of the (pre-1998) archaeology at the Parsons Site.

[5] A Stage 2 assessment (shovel test pits at 5m intervals) of the c. 30 kilometres of multi-use pathways was completed by URS in 2010 (URS 2013). In 2011 URS completed a Stage 4 assessment of the pathway across the Parsons Site (above the watermain trench) which included construction monitoring of the c. 3.5m wide pathway excavation (URS 2015).

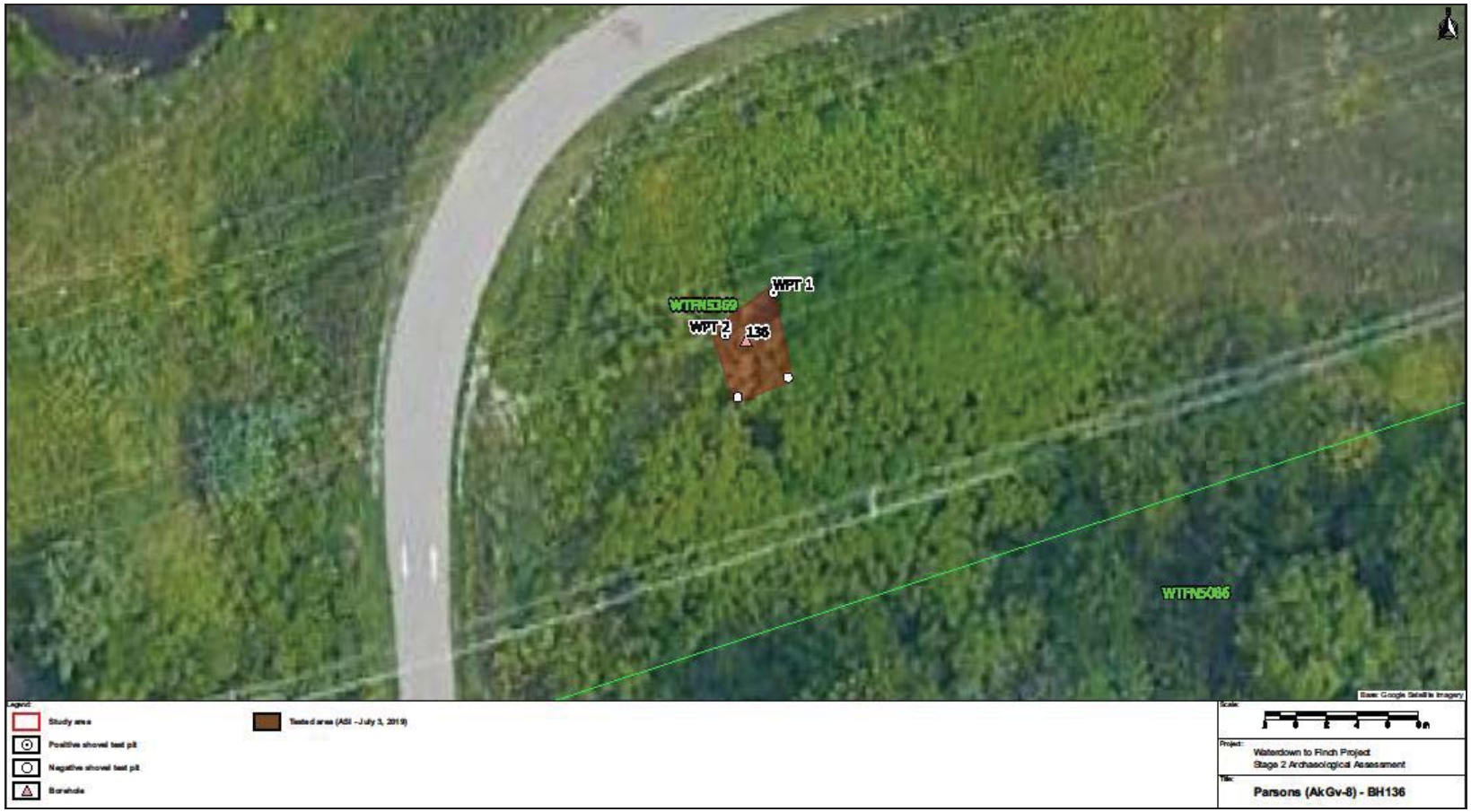

Figure 1: Positive test pits (WPT1 and WPT2) and negative test pits (white dots) excavated at BH136. (Trimble data from ASI fieldwork, July 3, 2019)

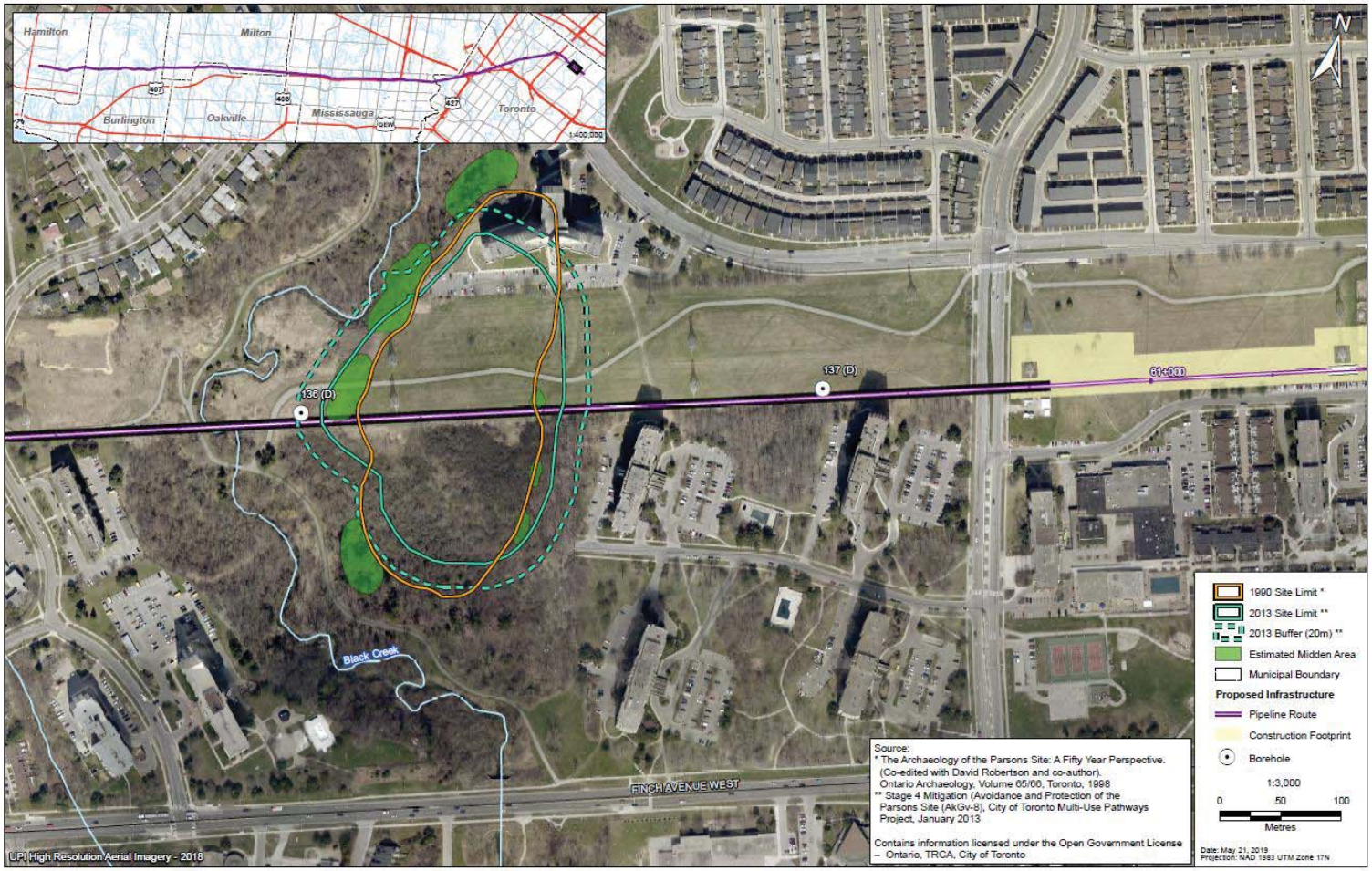

Figure 2: Overlay of all archaeological assessments (1998-2013) and the original locations of boreholes 136 and 137.

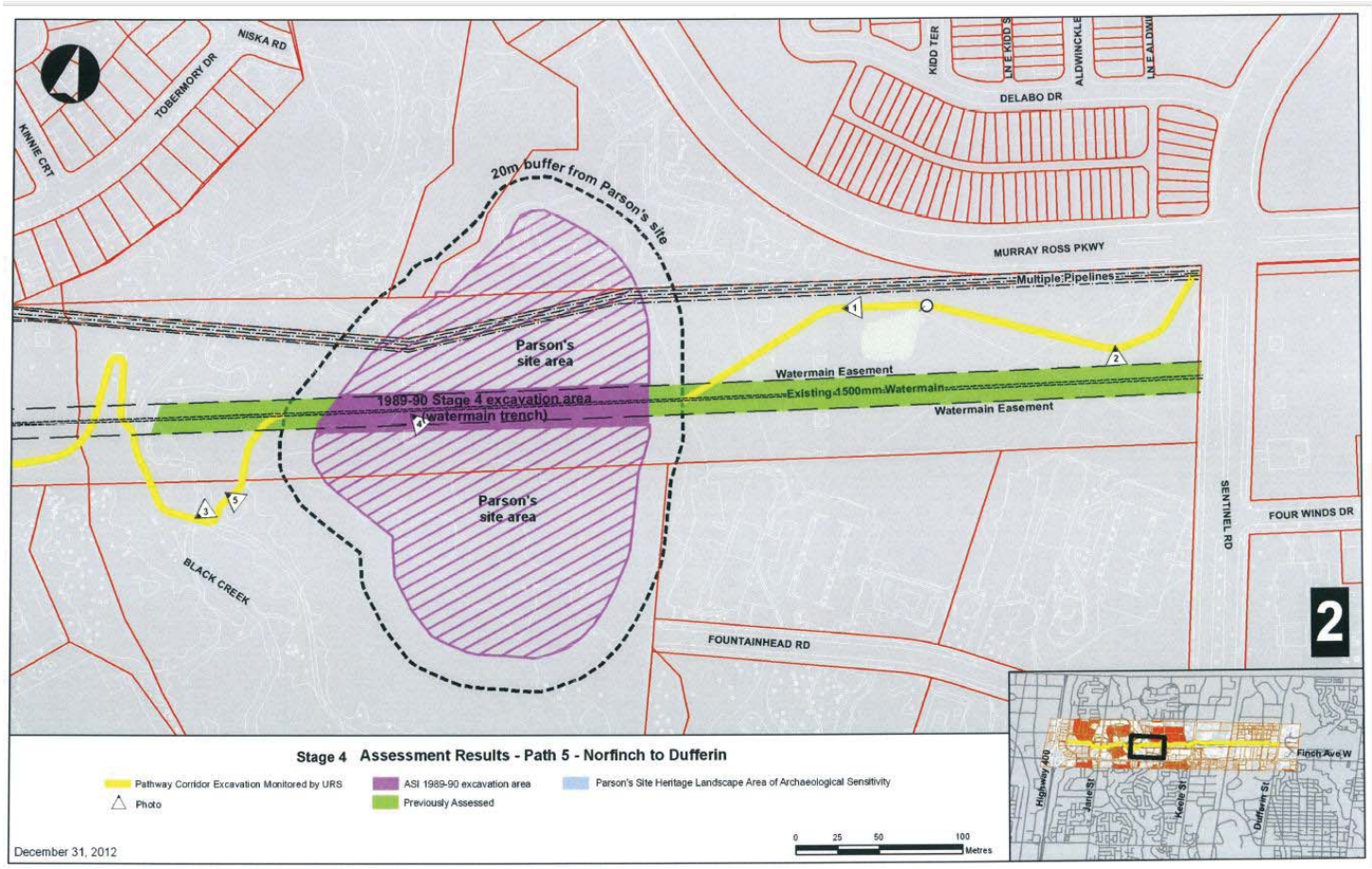

Figure 3: Pathway excavation (yellow) cleared all natural soils and confirmed no features within the pathway. (URS Corporation, *Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8)*, January, 2013).



Figure 4: View of BH136 during Stage 2 testing, looking east. (The apartment building on Fountainhead Road is visible in the background. The watermain trench would be situated along the left hand edge of this photograph as the southern edge of the watermain trench is immediately north of the hydro tower.) (Past Recovery 2019**)**



Figure 5: Photo depicting Gradall removing all topsoil from pathway location during URS Stage 4 Assessment. Assessment confirmed no features were present through monitoring and shovel shinning subsoil (URS Corporation, *Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8)*, April 2015).

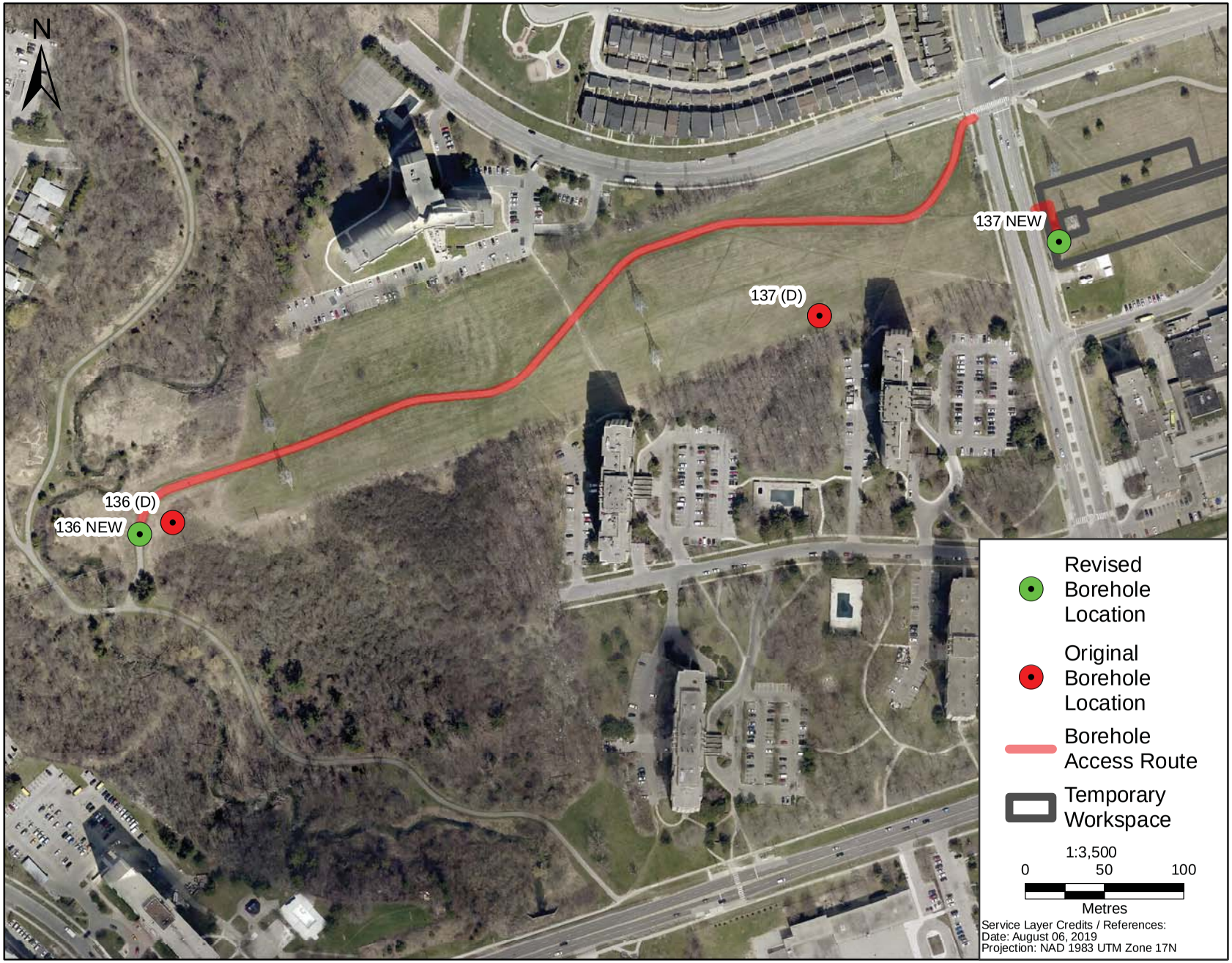

Figure 6 **Revised Borehole Locations 136 and 137**

BH137

To date, no Stage 2 assessment has been undertaken at this BH location. The original location for BH137 was approximately 200m east of the eastern palisade wall as indicated by the 1989-90 ASI watermain excavation (see Figures 2 and 3) and therefore outside the known limits of Parsons site. The BH was also located approximately 10m south of the southern edge of the watermain trench. Although it is located further to the north, the URS report on the Stage 3 and Stage 4 assessments for the pathway indicated considerable disturbance across this parcel (WTFN5369) to the east of the Parsons Site.

Similar to other BHs located within close proximity to the Parsons Site, the Stage 2 plan was to excavate four shovel test pits and a 1m x 1m unit at BH137. Access for the drill to BH137 was to be via the paved pathway from Sentinel Road and then south across the HONI corridor to the BH location, crossing the c. 18 m wide watermain trench. The off-pathway portion of the access route was to be matted.

With the recent findings at BH136, Past Recovery, ERM and Imperial propose moving BH137 to the east side of Sentinel road, approximately 160m from the current location of BH137, which would be closer to the exit point of the HDD (Figure 6). This proposed location would be accessed from Sentinel Road, and then south across the HONI corridor to the BH location. The off-pathway portion of the access route will be matted.

As mentioned above for the current location of BH137, we would propose to proceed with the 4 shovel test pits and the 1 m x 1m unit at this BH location. If cultural material is identified during this initial assessment, work will stop, and we will seek input from Indigenous Communities. Next steps could include Stage 3/4 excavation or moving the BH location.

BH135

BH135 is located within the HONI corridor approximately 340m west of Black Creek (c. 440 m west of the western palisade wall for the Parsons village). BH135 is also located immediately south of the watermain trench and disturbance is present across much of the parcel (WTFN5363).

A 30m buffer around BH135 was test pitted at 5m intervals July 8, 2019. Test pit soil profiles were deemed disturbed and no cultural material was encountered in any test pits.

An additional 1m x 1m test unit was excavated over BH135 on July 10, 2019 to confirm disturbance, the unit soil profile was consistent with test pit soil profiles. No cultural material or features were found in the test unit.

REFERENCES

2019. Past Recovery, Trimble data from ASI fieldwork, July 29 2019

1998. Ontario Archaeology, Volume 65/66

URS Corporation 2013. Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8). Final Report.

2019. Imperial Oil, Google Earth .KMZ file (provided July 29, 2019)

URS Corporation 2015. Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8). Final Report.

ROC3528a Meeting notes - Imperial version (4 pages)

Imperial Waterdown to Finch Pipeline Replacement Project September 13, 2019 8:30am	
Participants	
HWN • Maxime Picard, Ontario Project Coordinator • Simon Picard, Director of Legal Services • Renée Pelletier, Legal Counsel • Julia Brown, Legal Counsel • Melanie Vincent, HWN member and consultant to HWN	*Imperial* • Kelly Williams, Community Relations Officer • Ryan Klue, Project Manager of Execution • Pat Crepeau, Construction Manager, UPI • Mark Benschop, Environmental Coordinator, UPI • Jake Huzel, Indigenous Business Development Advisor • Elias Majdalani, Project Manager of Development (phone) • Zahra Allidina, Legal Counsel (phone) • Breanna Murillo, Socioeconomic Advisor (phone)

Objective(s)	
• To discuss Project updates	
Topic	**Discussion**
Stage 2 archaeology program logistics	• Mark and Pat onboard to help facilitate coordination of Stage 2 field program • Mark and Pat are from Ontario and have worked in Ontario before • Structure of staff for Stage 2: Exxon Mobil/Imperial Oil – pipeline integrity initiative (WatFin Project); UPI contracted to design and manage; ERM subcontracted to UPI; Past Recovery and ASI subcontracted to ERM; Past Recovery is PIF-holder • Mark previously worked on a pipeline in region – involved in archaeology and environmental field programs, including relationships with community monitors and FLRs • Mark is the 'go to' person for the monitors, so if there is any issue in the field, first go to Mark; full confidence that Mark will be able to handle, if not, come to Kelly • Schedule – approximately 25% of Stage 2 complete; expecting 50% by end of season • Finds this week: multiple lithics on area near bottom of escarpment; will be returning to location to intensify • ***Imperial to provide mapping of area assessed/Stage 2 reporting*** • HWN comfortable with Stage 2 restart documents provided
Emergency response	• For SPPL and Nanticoke and WatFin construction, Imperial would like to know who, when and how to notify HWN in the event of an emergency or incident and this protocol will be added to Imperial's Emergency Response Plans (ERP) • Imperial's strategy if there is a leak or similar incident: 1. Shut down and evacuate line 2. Find leak and mitigate; once location identified and

	isolated, ERP is already in progress – first step to notify and mobilize personnel; notify external parties and support organization, local and interested communities; • *Imperial and HWN to schedule technical ERP meeting relevant to operations and construction* • A leak tends to follow the pipeline; in case of pipeline in the area of the Parsons Site, pipeline would be approximately 30m deep; in this theoretical situation, HWN wants to know how remediation would occur and not disturb the Parsons Site; Imperial stressed that a leak is an extremely unlikely event and that remediation, if required would be completed using the best available processes and technology and maintaining the integrity of the Parsons Site would be key; *Imperial to provide an explanation re: leak scenario near the Parsons site and an overview of theoretical remediation of a leak on Imperial pipeline* • Purpose of this Project/replacement is to help ensure pipeline integrity; Imperial is designing the pipeline with standards above and beyond industry standard to ensure that an incident does not occur • HWN appreciates the low probability, but a leak or similar incident is still possible and given the significance of the site to HWN, it is important to HWN to understand theoretical ERP process and remediation and theoretical impacts to Parsons Site • As identified in the Environmental Report and Interrogatory Responses, Parsons Site is 1km away from end point of Project; Imperial considered other routes, but did not identify a viable alternative option; this location is particularly challenging due to the proximity to the Finch Terminal tie-in, which limits the availability of alternative routing • HWN views an additional pipeline in the busy utility corridor as a reason not to add to cumulative impacts on Parsons Site • Another ERP exercise will be scheduled closer to construction and HWN will be invited again • HWN would like a community representative on the ERP team and involved in decision-making, if the incident had the potential to affect the Parsons Site • Imperial committed to undertake a separate technical meeting to outline actions during an Emergency Response, a discussion on events taken on the pipeline in the event of a leak, potential impacts if there is a leak and a discussion on remediation
Project business opportunities	• HWN businesses: Wendake Construction and archaeology firm being developed o Wendake Construction/Hamel Construction – civil and engineering construction o Archaeology firm will be JV o Environmental assessment JV with Aecon in Quebec o Understanding that the Construction Contractor has not been selected by UPI, HWN would like to have an example Work Breakdown Structure (WBS) of all the scopes of work that would fall into the construction phase of the project

	• *Imperial and HWN to share specific capabilities and opportunities re: business and workforce/education contacts and opportunities* • Difficult to identify specific opportunities because subcontractor not determined yet, but can provide general ideas and more specifics going forward • Imperial preference to work with 100% community-owned businesses • Imperial prefers competitive bid process to set asides, with preference for local Indigenous businesses; Imperial likes to work with community businesses to help make them more competitive • Scholarships ○ *HWN to provide correct community contacts to Imperial so that Imperial can begin sending monthly job opportunities and further details about scholarships (i.e., Indspire) to HWN*
Construction engagement	• HWN's Option A – having HWN archaeology firm monitor construction • HWN's Option B – having monitors on site to monitor construction • Subcontractors have different proposals re: logistics of construction • HWN would want a monitor with each crew
HDD technical plans	• Presented HDD profile (and provided a hard copy) and explained the plans, including: ○ Purpose of boreholes to confirm soil conditions and identify depth of the bedrock, which enables Imperial to design the safest possible HDD • HWN's impression is that Imperial wants to manage issues later and not now; Imperial responded that Imperial makes decisions based on sound science, but nobody can predict with 100% certainty
Other	• Imperial is always available to talk; feel free to call us and ask a question whenever; no meeting required • Far apart on perspective of impact to Parsons site; HWN views the potential for physical impacts to the Parsons Site as an impact to HWN; Imperial views physical avoidance of the Parsons Site as minimal/no impact • HWN wants to understand the potential remediation to understand the potential risks • HWN would like something in exchange for assuming some level of risk; HWN views the assumption of risk is an impact; HWN wants to manage that risk with Imperial; HWN wants Imperial to acknowledge that the risk is an impact • If an ossuary were identified, HWN would want Imperial to: 1. Avoid 2. Have an agreement and procedures in place beforehand, i.e., Chance Find Protocol as part of agreement, protection of sites, risk management process, business, workforce • *Imperial to provide Chance Find Protocol ASAP*

Action Items		Status
1	*Imperial to provide mapping of area assessed/Stage 2 reporting*	Pending
2	*Imperial and HWN to schedule technical ERP meeting relevant to operations and construction*	Pending

3	*Imperial to provide an explanation re: leak scenario near the Parsons site and an overview of theoretical remediation of a leak on Imperial pipeline*	Pending
4	*Imperial and HWN to share specific capabilities and opportunities re: business and workforce/education contacts and opportunities*	Pending
5	*HWN to provide correct community contacts to Imperial so that Imperial can begin sending monthly job opportunities and further details about scholarships (i.e., Indspire) to HWN*	Pending
6	*Imperial to provide Chance Find Protocol ASAP*	Pending

ROC3528b Meeting Notes - With HWN Revisions (4 pages)

Imperial Waterdown to Finch Pipeline Replacement Project September 13, 2019 8:30am	
Participants	
HWN • Maxime Picard, Ontario Project Coordinator • Simon Picard, Director of Legal Services • Renée Pelletier, Legal Counsel • Julia Brown, Legal Counsel • Melanie Vincent, HWN member and consultant to HWN	*Imperial* • Kelly Williams, Community Relations Officer • Ryan Klue, Project Manager of Execution • Pat Crepeau, Construction Manager, UPI • Mark Benschop, Environmental Coordinator, UPI • Jake Huzel, Indigenous Business Development Advisor • Elias Majdalani, Project Manager of Development (phone) • Zahra Allidina, Legal Counsel (phone) • Breanna Murillo, Socioeconomic Advisor (phone)

Objective(s)	
• To discuss Project updates	
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6	*Imperial to provide Chance Find Protocol ASAP*	Pending

ROC3535 (see ROC3563 for attachments)

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: October 11, 2019 5:09 PM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Thiessen, Corinne E; Murillo, Breanna K /C; Allidina, Zahra; Horvath, Tom A
Subject: FW: Imperial-Waterdown-Finch Project-Documents for Review
Attachments: E.1_WFP_UPI_Chance_Find_Procedure .pdf; E.1_WFP_UPI_Spill_Plan.pdf; SPPL Emergency Response Plan_DRAFT.PDF

From: Williams, Kelly /C
Sent: Friday, October 11, 2019 7:08 PM
To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>
Cc: 'simon picard' <simon.picard@cnhw.qc.ca>; louis lesage <louis.lesage@cnhw.qc.ca>; melanievincent21@yahoo.ca; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: Imperial-Waterdown-Finch Project-Documents for Review

Hello Maxime,

Thanks for taking some time to talk with me this morning. As we discussed, I have attached the documents Imperial committed to providing to HWN for review and comment.

Emergency Response Plan for the Sarnia Products Pipeline: Notification and engagement of Huron-Wendat Nation in the event of an incident has been added to these documents. Note that the document is made up of two components.

- *Specific Contingency Plan (pages 1-7):* This section outlines the initial steps taken in the event of an incident. Please see page 3 (highlighted in blue) for the proposed addition. This document is the trigger for notification of Huron-Wendat for an incident and would also initiate the process for a liaison from Huron-Wendat to participate in the Incident Command System.
- *Asset-Specific Tactical Plans (pages 8-84)*: This section outlines specific tactical plans for sensitive areas along the pipeline. For each tactical plan, the required notifications are listed. Please see page 12 (highlighted in blue) for the proposed addition. Note that we have shown an update to only one tactical plan for initial review, but this addition will be made for each tactical plan (there are 22 in this document) once contact information is confirmed. We continue to develop this plan and are looking to discuss the opportunity to develop a tactical plan specific to the Parsons site.

Chance Find Procedure and Spill Prevention and Response Plan: These documents are in initial draft format and will continue to be developed in collaboration with the construction contractor once selected, as they are intended to be implemented in the field during construction work.

The invitation to collaborate on a technical meeting to further understand these topics and address HWN's concerns related to the project and the protection of the Parsons site remains open. The project team would appreciate your comments in advance in order to prepare for a productive discussion. Please contact me if you have any questions.

Wishing you and yours a safe and happy holiday weekend!

Sincerely,

kelly

Kelly Williams

ROC3563a

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: November 4, 2019 12:26 PM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Murillo, Breanna K /C; Allidina, Zahra
Subject: FW: Imperial-Waterdown-Finch Project-Documents for Review
Attachments: SPPL Emergency Response Plan_DRAFT - HWN Comments.pdf; E.1 _WFP_UPI_Chance_Find_Procedure - HWN Comments.pdf; E.1_WFP_UPI_Spill_Plan - HWN Comments.pdf

From: Maxime Picard [mailto:maxime.picard@cnhw.qc.ca]
Sent: Monday, November 4, 2019 2:04 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: simon picard <simon.picard@cnhw.qc.ca>; louis lesage <louis.lesage@cnhw.qc.ca>; melanievincent21@yahoo.ca; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; RPelletier@oktlaw.com; Julia Brown <jbrown@oktlaw.com>
Subject: RE: Imperial-Waterdown-Finch Project-Documents for Review

Good morning Kelly,

Please find attached our comments on the 3 provided documents.

Please also confirm at whom we should address our invoice for our revision fees.

Best,

Maxime

NATION HURONNE-WENDAT
Bureau du Nionwentsïo

Maxime Picard, B. Sc. A.
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Avis sur la protection et la confidentialité des informations

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De : Williams, Kelly /C [mailto:kelly.williams@esso.ca]
Envoyé : 11 octobre 2019 19:08

DRAFT
ROC3563b Attachment - Chance Find Protocol with Comments (9 pages)

Waterdown to Finch Project

Chance Find Heritage Resources Contingency Plan

EM Document No.:
ONT-WF-SPPL-UP-RP-0009

UPI Doc Number:
24255-598-3RT-10016

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DRAFT

ACRONYMS AND ABBREVIATIONS

Chance Find Plan	Chance Find Heritage Resources Contingency Plan
EI	Environmental Inspector
EPC	Engineering, Procurement and Construction Management
IO	Infrastructure Ontario
MTCS	Ministry of Tourism, Culture and Sports
ROM	Royal Ontario Museum
TRCA	Toronto Region and Conservation Authority

DRAFT

1. OVERVIEW AND PURPOSE

As part of the Waterdown to Finch Environmental Protection Plan (EPP), the Chance Find Heritage Resources Contingency Plan ("Chance Find Plan") has been developed to provide Imperial Oil Limited (Imperial) and its Contractor(s) with the appropriate response guidelines and procedures in the event unidentified heritage resources and sites are encountered during construction activities. Imperial has completed a number of environmental studies, including a comprehensive Stage 2 Archaeological Assessment of the Workspace, in preparation for development of this Project. Nevertheless, even thorough investigations do not fully remove the potential for impacts on as-yet unknown Heritage sites, including pre- and post-contact archaeological sites and paleontological sites. Therefore, though the potential for unknown Heritage Resources is low, the Chance Find Plan aims to avoid and/or reduce Project risks that may result due to such chance finds, and to ensure protection of heritage resources and sites. Examples of cultural heritage sites and paleontological resources include but are not limited to the following:

- Prehistoric artifacts such as projectile points/arrowheads, pottery sherds, shell, stone tools, cooked or modified animal bone, or chipped stone.
- Historic artifacts such as pottery sherds, window or bottle glass, nails, bricks and mortar, or cut stone.
- A cluster or concentration of prehistoric or historic artifacts.
- Features such as soil stains, trash pits, fire pits/hearths, post molds, earthen mounds.
- Architectural remains such as stone, brick, or concrete foundations, piers, concrete slabs, or other structural remains.
- Body fossils (fossilized remains of ancient organisms) and trace fossils (impressions made on a substrate by ancient organisms).

The Chance Find Plan will be implemented in the case of unanticipated discoveries of archaeological or paleontological sites during construction and will be implemented in conjunction with regulators and Indigenous communities. This document includes the regulatory framework and general guidelines for the protection of these resources and sites.

2. REGULATORY CRITERIA

Under the *Ontario Heritage Act* RSO 1990 c O.18 *Environmental Assessment Act*, or through the Class Environmental Assessment process lands require archaeological assessment in compliance with the 2011 Standards and Guidelines for Consultant Archaeologists (Ontario Ministry of Tourism, Culture and Sports ["MTCS"] 2011). Consideration must be made for the interests of other stakeholder groups and regulatory agencies where relevant, including the Toronto and Region Conservation Authority (TRCA), Infrastructure Ontario (IO), municipal by-laws, and Indigenous communities in accordance with the 2011 Draft Technical Bulletin: Engaging Aboriginal Communities in Archaeology (Ontario MTCS 2011).

3. ROLES AND RESPONSIBILITIES

3.1 Proponent

Imperial is the owner of the Project and aside from external regulatory reporting, will delegate the implementation of this Chance Find Procedure to the Engineering, Procurement and Construction Contractor ("EPC").

Imperial is responsible for all regulatory and external reporting associated with the Chance Find Procedure and in accordance with permits and authorizations.

3.2 Engineering, Procurement and Construction Contractor

The EPC is responsible for the development, design and supervision of the implementation of the Chance Find Plan. EPC responsibilities include:

- Leading the development of the Chance Find Plan.
- Selecting and designing Chance Find measures that are best suited for the site-specific environmental and heritage conditions.
- Reviewing and approving on-site design modifications.
- Developing and implementing contingency plans for addressing Chance Find controls that are not effectively or successfully implemented.
- Oversee inspection of Chance Find controls.

3.3 Contractor

The EPC will assign a construction Contractor who is responsible for following the Chance Find Plan activities and mitigation measures including:

- Installing the Chance Find Plan measures according to specifications.
- Inspecting, monitoring, and maintaining Chance Find Plan measures.
- Following chance find notifications and reporting requirements in accordance with specifications, permits, and authorizations.

3.4 Environmental Inspector

The EPC will assign an Environmental Inspector ("EI") who will be responsible for inspection and monitoring of the activities and mitigation measures outlined in the Chance Find Plan.

- Understanding the Chance Find Plan and its implementation.
- Monitoring compliance with the provisions of the Chance Find Plan.
- Implementing contingency measures if the prescribed Chance Find Plans are not effective.
- Documenting all site inspections and corrective actions.

3.5 Project Archaeologist

Imperial will designate a Project Archaeologist that will oversee and provide technical direction for archaeology of the Project, including the implementation of the Chance Find Plan.

3.6 Employees and On-site Personnel

In addition to the EI and Project Archaeologist, employees and on-site personnel/contractors will receive site orientation and training, developed by the Project Archaeologist in consultation with the EPC, regarding compliance with the Project's Chance Find Plan. All new employees will receive site orientation and training during their induction and the training will focus on the procedure in place for responding to newly identified sites and how to report these sites or observed site impacts. Training records will be kept and maintained. Copies of the Project's Chance Find Plan will be kept on-site for reference and on file by Imperial.

4. PLANNING AND PREVENTION

Heritage assessments undertaken prior to construction are designed to identify and mitigate effects to Heritage Resources. However, even the most thorough investigations may not identify all Heritage Resources that may be impacted during project development. Therefore, though the potential for unknown Heritage Resources is low, the Chance Find Plan is designed to mitigate impacts to any additional cultural heritage sites that were not identified prior to construction. For purposes of the Chance Find Plan, cultural heritage sites include human remains interred by any means, as well as archaeological materials such as prehistoric or historic objects (artifacts), features, structural remains, and landscape modifications. Paleontological resources are the fossilized remains of plants and animals.

The following procedures will be implemented for the Project if unanticipated discoveries of archaeological or paleontological materials occur in the course of construction activities (Figure 4-1; Table 4-1).

Table 4-1: Chance Find Procedures

Activity / Feature	Procedure
Chance finds	If personnel suspect they have discovered archaeological materials, or paleontological materials they are to: 1. Stop any earthwork or construction activities, including movement of equipment, within 50 m of the find. 2. Leave the material in place and mark the area around the site using a 50 m buffer zone. 3. Contractor report the discovery to the EI immediately. 4. EI will contact the Project Archaeologist immediately. 5. The Project Archaeologist or designate will assess the find and If the find is determined to have cultural heritage value or interest (CHVI): a. the EI and Project Archaeologist will inform the MTCS and local Indigenous communities of the find. b. the Project Archaeologist and EI, in consultation with the MTCS and local Indigenous communities, will develop a mitigation plan in accordance with the 2011 Standards and Guidelines. c. Once the mitigation plan has been completed and approval is received from MTCS and indigenous communities work can continue. 6. If the find is determined not to have CHVI construction can continue.
Human remains	If human remains are found the Standards and Guidelines state that “The *Cemeteries Act*, R.S.O. 1990 c. C4 and the *Funeral, Burial, and Cremation Services Act* 2002, S.O. 2002, C.33 (when proclaimed in force) require anyone who uncovers a burial site containing human remains to cease fieldwork or construction activities and report the discovery to the appropriate authorities (police or coroner).” In a case where suspected human remains or unmarked burial are encountered the following steps will be taken:

Activity / Feature	Procedure
	1. Stop any earthwork or construction activities, including movement of equipment, within 50 m of the find. 2. Leave the material in place, mark and secure the area (50 m buffer zone) and assign personnel to monitor the area and prevent any unauthorized access. 3. Contractor report the discovery to the EI immediately. 4. EI will immediately contact the Project Archaeologist and the appropriate authorities (police). 5. Following confirmation that the remains are human: a. The police to manage the site if deemed criminal. b. The Project Archaeologist to manage the site if deemed non-criminal (e.g., unmarked grave of Euro-Canadian or Indigenous affiliation). 6. If deemed criminal, resume work in the area only upon completion of the site-specific mitigation plan and following clearances granted from the appropriate regulatory agencies (police). 7. If deemed non-criminal: a. the EI and Project Archaeologist will inform the MTCS and local Indigenous communities of the find. b. the Project Archaeologist and EI, in consultation with the MTCS and local Indigenous communities, will develop a mitigation plan. c. once the mitigation plan has been completed and approval is received from MTCS and indigenous communities work can continue. 8. If the site is deemed to be faunal (animal) remains, continue the assessment with no additional engagement from authorities.
Paleontological materials	In a case where suspected paleontological materials are encountered the following steps in addition to the steps above are to be taken: 1. Secure the area (50m buffer zone) and assign personnel to monitor the area and prevent unauthorized access. 2. The Project Archaeologist to report the discovery to the appropriate authorities (Royal Ontario Museum [“ROM”], Local Paleontological Society). 3. The Project Archaeologist or designate to prepare and implement a site-specific mitigation plan.

5. REFERENCES

Cemeteries Act, R.S.O. 1990 c. C4

Funeral, Burial, and Cremation Services Act, 2002. S.O. 2002, C.33

Ontario Ministry of Tourism and Culture, 2011. *Engaging Aboriginal Communities in Archaeology: A Draft Technical Bulletin for Consultant Archaeologists in Ontario.* Queen's Printer for Ontario: Toronto.

Ontario Ministry of Tourism and Culture, 2011. *Standards and Guidelines for Consultant Archaeologists*. Queen's Printer for Ontario: Toronto.

DRAFT

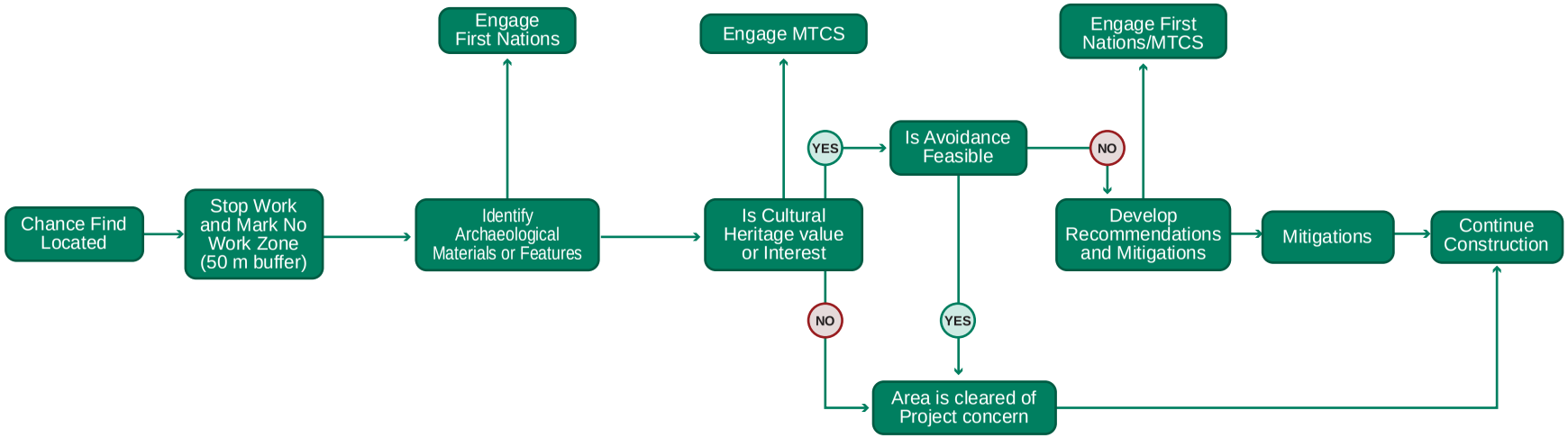

Figure 4-1: Chance Find Workflow

ROC3565a Letter (5 pages)

Renée Pelletier
rpelletier@oktlaw.com
416.981.9456

November 12, 2019

BY E-MAIL

The Honourable Greg Rickford
Minister of Energy, Northern Development and Mines
Whitney Block, Room 5630, 5th Floor
99 Wellesley St. West
Toronto, ON M7A 1W1
greg.rickford@ontario.ca

Dear Minister Rickford:

Re: Indigenous Consultation – Imperial's Waterdown to Finch Pipeline Project – EB-2019-0007

We are counsel to the Huron-Wendat Nation ("HWN" or the "Nation").

This letter follows your Ministry's email to Maxime Picard of the HWN dated November 12, 2019, in which the Ministry suggested that the HWN's concerns regarding the above-noted project have been addressed, and it is now appropriate to release a Letter of Sufficiency to the Ontario Energy Board concerning Imperial's consultation and accommodation of the HWN in relation to the Waterdown to Finch Pipeline Project (the "Project").

The Ministry is mistaken that the HWN's concerns have been addressed. These concerns are serious and ongoing. While the HWN has been engaged with Imperial in discussing these concerns, the Nation is not satisfied that its concerns have been adequately addressed. The Nation has a number of concerns that Imperial, which has been delegated the procedural aspects of the Crown's duty to consult and accommodate, has not yet mitigated or accommodated. As such, neither the procedural nor substantive aspects of the duty of consultation for this Project have been discharged.

Rights of the HWN

The proposed Project runs through the ancestral lands of the HWN, and the Crown is required to discharge its duty to consult and accommodate the HWN with respect to the Project's impacts and potential impacts on the Nation's Aboriginal and treaty rights.

The HWN is a signatory to a treaty with the Crown concluded in 1760 which recognizes and protects, *inter alia*, the HWN's cultural and spiritual practices. This treaty has been recognized by the Supreme Court of Canada (see *R. v Sioui*, [1990] 1SCR 1025).

The HWN also has inherent rights protected by section 35 of the *Constitution Act, 1982*. These rights include, but are not limited to, the right to the integrity of the Nation's archaeological and burial sites.

The importance to the HWN of its right to the integrity of the Nation's archaeological and burial sites cannot be overstated, nor can the importance to the HWN of asserting and protecting that right.

The HWN has an ongoing obligation to ensure the respect and protection of its archaeological and cultural heritage in Ontario. This sacred obligation is especially strong in relation to protecting its ancestors' burial sites, as the HWN believes that the spirits of the ancestors continue to reside with their bones.

The HWN's Council adopted a resolution on June 15, 2015 describing the rights of the HWN in Ontario and the HWN's sacred obligation to protect its archaeological and burial sites in Ontario (the "Resolution"). The Resolution states that all necessary measures must be taken to ensure the respect and protection of Huron-Wendat cultural and archaeological sites.

The proposed Project involves archaeological fieldwork, including digging test pits; digging trenches and entry points for trenchless drilling; general construction work; and operation of a pipeline. Each of these activities poses significant risk to archaeological and burial sites in the Project area. In fact, archaeological sites have already been disturbed, and artifacts have already been destroyed, in the course of the Stage 2 archaeological assessment. It is to be expected that such damage will continue over the archaeological and construction phases of the Project.

Such damage is of concern to the HWN generally. However, it is of particular concern with respect to a known archaeological site, the Parsons site, which is one of the Nation's most important archaeological sites uncovered to date.

When complete, the Project will function as a pipeline carrying fuel in close proximity to the Parsons site, other archaeological and burial sites uncovered and disturbed during the course of archaeological fieldwork and construction, and further sites that are not uncovered throughout construction but that will nevertheless be at risk of damage in the event of a spill from the pipeline.

The impacts that have been felt by the HWN to date (disturbance and destruction of sites and artifacts), the impacts that the HWN expects to continue to experience (continued disturbance and destruction of sites and artifacts), and the impacts that the HWN hopes never to encounter, but which remain very real risks (a pipeline spill in the vicinity of an archaeological or burial site) are significant impacts concerning which the Crown has a duty to consult with, and to accommodate, the HWN.

Concerns Identified by Grand Chief Sioui

This correspondence is by no means the first time that the HWN has advised your Ministry of its concerns regarding the Project's impacts on the Nation's rights, and of Imperial, and hence the Crown's, failure to discharge its duty to consult and accommodate the HWN in regards to those impacts.

Grand Chief Sioui raised the Nation's concerns with your Ministry by letter dated September 4, 2019. The concerns outlined in the Grand Chief's letter included that the Project has the potential to "disturb, badly damage, and even destroy the Parsons Site and other archaeological sites in the pipeline's path."

Grand Chief Sioui further stated in his letter that "If the Crown fails to ensure that the duty to consult and accommodate is adequately discharged by Imperial, my Nation will honour our Council's commitment to protect the Nation's archaeological heritage by taking the steps necessary to protect the Parsons Site."

The concerns outlined in the Grand Chief's letter, and the Nation's commitment to taking the steps required to ensure that its right to the integrity of its archaeological and burial sites is respected and honoured by the Crown, remain true today.

Ongoing Concerns

Your Ministry suggested in its email of November 12, 2019 that the HWN's ongoing concerns with the Project related only to chance find, emergency and spill response plans.

While those plans are certainly of concern to the HWN, they are far from being the Nation's only concern.

With respect to the plans, it is accurate that Imperial has shared draft plans with the HWN and sought the HWN's comments on these draft plans. The HWN has provided these comments, which are not minor in nature and which have not been addressed to date. Specifically:

- SPPL Emergency Response Plan: Imperial has not yet drafted a site-specific emergency plan for the Parsons Site, or an emergency plan for incidents in the vicinity of other archaeological or burial sites. Imperial's generic SPPL Plan most definitely does not address the HWN's specific concerns about the Project's impacts and potential impacts on its right to the integrity of its archaeological and burial sites.

- Waterdown to Finch Project Spill Prevention and Response Plan: This plan does not address how Imperial will respond to spills in the vicinity of other archaeological or burial sites, and does not address the HWN's specific concerns about the Project's impacts and potential impacts on its right to the integrity of its archaeological and burial sites.

- Chance Find Contingency Plan: The HWN has made extensive comments on Imperial's draft Chance Find Plan, none of which have been addressed to date. The HWN's main concern (but by no means its only concern) with the draft Plan is that it does not adequately address what will occur in the event that human remains or an ossuary are found.

With respect to the HWN's ongoing concerns more broadly, the HWN has continued to engage in dialogue with Imperial in an effort to have Imperial understand the impacts and potential impacts the Project has had and will continue to have on its right to the integrity of its archaeological and burial sites. As noted above, the importance of non-disturbance of archaeological and burial sites to the HWN cannot be overstated. The Nation is bound by its tradition, customs and beliefs, as reflected in the 2015 Resolution, to ensure that these sites are protected.

Unfortunately, there have already been impacts on the HWN's archaeological sites, and it is expected that these impacts will continue throughout not only the archaeological fieldwork, or the construction phase, but over the course of the Project's lifespan. More than one archaeological site has been disturbed, and artifacts have been destroyed. This will continue as the Project's fieldwork and construction progress.

There is also the risk that the pipeline poses in terms of a spill – this risk will exist so long as the pipeline is in use, and would have potentially catastrophic impacts on any archaeological or burial sites in a leak's vicinity.

Given the seriousness of the risks posed by the Project, and the existing, anticipated, and potential impacts on the Nation's right caused by the Project, adequate steps must be taken not only to consult with the HWN, but also to accommodate the Nation.

Accommodation can take the following forms: avoidance of avoidable impacts, and mitigation of, and compensation for, impacts that cannot be fully avoided.

The HWN is not satisfied that the steps proposed by Imperial to date adequately ensure the avoidance, mitigation or compensation for existing, anticipated and potential impacts on the HWN's right. For example, as noted above, none of the HWN's comments on the draft plans have been incorporated into the plans to date, and the plans therefore do not address the HWN's concerns. More broadly, Imperial has not taken adequate accommodation steps, in terms of ensuring avoidance of, or mitigation and compensation for, existing and potential impacts caused by the Project. As such, the duties of consultation and accommodation delegated to Imperial have not to date been fulfilled. Since Imperial has not yet met this duty, neither has the Crown.

In light of the above, it is the HWN's position that it would be inappropriate for the Ministry to release the Letter of Sufficiency to the Ontario Energy Board at this time. Moreover, in the event that Ministry does release the Letter of Sufficiency over the HWN's objections and the OEB relies on that Letter in its approval of the Project, the Ministry will risk judicial review of the Project's approval.

We trust that the Ministry will take the HWN's objection to the release of the Letter of Sufficiency into close consideration, and will not release the Letter at this time.

Yours truly,



Renée Pelletier
Managing Partner

c. Emma Sharkey, Ministry of Energy, Northern Development and Mines (by email)
Sherri Evers, Imperial Oil (by email)
Kelly Williams, Imperial Oil (by email)
Board Secretary, Ontario Energy Board (by email)
Grand Chief Sioui, Huron-Wendat Nation (by email, c/o Maxime Picard)
Maxime Picard, Huron-Wendat Nation (by email)

ROC3565b

McArthur, Cheryl

From: Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Sent: November 13, 2019 10:09 AM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Imperial Waterdown to Finch Pipeline Project - DTCA the Huron-Wendat Nation
Attachments: Ltr 19-11-12 to ENDM re Imperial Pipeline.pdf

Importance: High

From: Julia Brown [mailto:jbrown@oktlaw.com]
Sent: Tuesday, November 12, 2019 9:22 PM
To: greg.rickford@ontario.ca
Cc: Emma.Sharkey@ontario.ca; Evers, Sherri L <sherri.l.evers@esso.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; BoardSec@oeb.ca; Maxime Picard <maxime.picard@cnhw.qc.ca>; Renée Pelletier <RPelletier@oktlaw.com>; Agnes Chelminska <AChelminska@oktlaw.com>
Subject: Imperial Waterdown to Finch Pipeline Project - DTCA the Huron-Wendat Nation
Importance: High

Dear Minister Rickford:

Please see the attached correspondence of today's date.

Best regards,

Julia Brown
Olthuis, Kleer, Townshend LLP
Barristers and Solicitors
250 University Avenue, 8th Floor
Toronto, ON M5H 3E5
P: 416.981.9353
F: 416.981.9350

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ROC3609a Letter (2 pages) (Attachment is ROC3455)

Jessie Malone, P.Eng.
Environmental and Regulatory Lead
587.476.4799 tel
jessie.m.malone@esso.ca

November 22, 2019

Emma Sharkey
Senior Advisor
Ministry of Energy, Northern Development and Mines
emma.sharkey@ontario.ca

Re: Nov. 12, 2019 OKT Huron-Wendat Nation letter re: Indigenous Consultation – Imperial's Waterdown to Finch Pipeline Project – EB-2019-0007

Dear Ms. Sharkey,

This communication is intended to provide additional clarity and context in response to various matters outlined in the Nov. 12, 2019 letter from Olthuis Kleer Townshen - LLP on behalf of the Huron-Wendat Nation ("**HWN**") to the Ministry of Energy, Northern Development and Mines ("**MENDM**").

Imperial conducts business in a manner that respects the land, environment, rights and cultures of Indigenous communities. We seek to understand Indigenous perspectives on issues of mutual interest and to deal constructively with differing views. Imperial is committed to addressing concerns through ongoing engagement directly with HWN and expects this engagement to continue through to Project completion.

Imperial understands that HWN has concerns and offers the following responses.

HWN statements on SPPL Emergency Response Plan, Waterdown to Finch Project Spill Prevention and Response Plan, and Chance Find Contingency Plan

The SPPL Emergency Response Plan is a detailed, site-specific response plan that governs Imperial's existing pipeline and has supported safe operation since installation. The revisions made to this plan outline how the HWN and other Indigenous communities will be engaged in emergency response. Imperial is in the process of responding to the comments provided by the HWN.

Imperial has accelerated the development of the Spill Response Plan and the Chance Find Contingency Plan to accommodate review by the HWN. These plans are still in draft form and will be finalized prior to construction and shared with Indigenous communities engaged on the Project. Imperial is in the process of responding to all the comments provided by the HWN and is working to address these comments and feedback where possible.

Imperial has responded to all of the HWN's specific concerns identified to date and is committed to ongoing engagement with the HWN to address any other specific concerns.

HWN archaeology concerns

Imperial would like to clarify that these concerns were addressed in Imperial's Sept. 13, 2019 Letter to the MENDM, included as Attachment 1 to this Letter. Specifically, Imperial's Sept. 13, 2019 Letter outlines:

- An explanation of the recovery and condition of artifacts found in proximity to the Parsons Site; no artifacts have been destroyed; and

- A description of the highly-utilized transmission corridor (pipelines, transmission towers and other utilities) that passes through the Parsons Site and Imperial's commitment to no disturbance and avoidance of the area through the use of Horizontal Directional Drilling.

While Imperial is committed to addressing the HWN's concerns through ongoing engagement, Imperial does not agree that a Letter of Sufficiency may only be issued once HWN, at its sole discretion, is satisfied with the accommodation measures proposed by Imperial.

Imperial appreciates the MENDM's attention to this matter and would be pleased to address any questions from the MENDM.

Sincerely,



Jessie Malone, P.Eng.
Environmental and Regulatory Lead

cc. The Honourable Greg Rickford, Minister of Energy, Northern Development and Mines
Grand Chief Sioui, Huron-Wendat Nation, c/o Maxime Picard
Maxime Picard, Ontario Projects Coordinator, Huron-Wendat Nation
Renée Pelletier, Managing Partner, OKT LLP
Board Secretary, Ontario Energy Board
Sherri Evers, Fuels Manager Central/Eastern Canada, Imperial
Kelly Williams, Community Liaison, Imperial
Zahra Allidina, Counsel, Imperial
Richard King, Partner, Osler, Hoskin & Harcourt LLP

Attachments:
Attachment 1 – Letter from Imperial dated September 13, 2019 to the MENDM

ROC3609b

McArthur, Cheryl

From: Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Sent: November 29, 2019 10:07 AM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Imperial's Waterdown to Finch Project - Response to Nov. 12 letter to MENDM
Attachments: 2019.11.22_Imperial Waterdown to Finch_Response to 2019.11.12 letter to ....pdf

From: Malone, Jessie M
Sent: Friday, November 22, 2019 9:09 AM
To: 'Sharkey, Emma (ENDM)' <Emma.Sharkey@ontario.ca>
Cc: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>; 'rpelletier@oktlaw.com' <rpelletier@oktlaw.com>; 'boardsec@oeb.ca' <boardsec@oeb.ca>; Evers, Sherri L <sherri.l.evers@esso.ca>; Williams, Kelly /C <kelly.williams@esso.ca>; Allidina, Zahra <zahra.allidina@esso.ca>; King, Richard <rking@osler.com>; 'greg.rickford@ontario.ca' <greg.rickford@ontario.ca>
Subject: Imperial's Waterdown to Finch Project - Response to Nov. 12 letter to MENDM

Good morning Emma,

Please see Imperial's attached response to the letter sent on Nov. 12 by OKT Law on behalf of Huron Wendat Nation to the Ministry of Energy, Northern Development and Mines.

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**

ROC3607a

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: November 29, 2019 8:45 AM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch Project-Imperial-Responses to Comments
Attachments: Copy of 2019.11.28_Imperial response to HWN comments on draft documents.xlsx

---

From: Williams, Kelly /C
Sent: Friday, November 29, 2019 10:43 AM
To: 'Maxime Picard' <maxime.picard@cnhw.qc.ca>
Cc: louis lesage <louis.lesage@cnhw.qc.ca>; Catherine Dupont <catherine.dupont@cnhw.qc.ca>; melanievincent21@yahoo.ca; simon picard <simon.picard@cnhw.qc.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: Waterdown-Finch Project-Imperial-Responses to Comments

Good morning Maxime,

As discussed, here are the Imperial responses to HWN's comments on ERP/Spill Response and CFP. Responses were requested by the MENDM and sent via email by Jessie Malone yesterday afternoon. Please contact me if you have any questions.

Have a great weekend!

kelly

Kelly Williams
Community Relations Officer Waterdown-Finch Project
Imperial
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C 519.328.8681
imperialoil.ca | Twitter | YouTube

ROC3607b Response Table (3 pages)

Page & Ref	Huron-Wendat Nation Comments	Imperial Response to HWN Comment
Emergency Response Plan Page 3; Item 6	Imperial needs to commit to fund HWN's participation in such a response.	Imperial will commit to funding HWN's participation in such a response, however it is not appropriate to include this update in a technical document.
Emergency Response Plan Page 3; Item 7	Please advise when Imperial has drafted a site-specific plan for the Parsons Site.	Imperial is committed to working on a specific response in the event of an incident at the Parsons site with HWN and Imperial Operations in advance of pipeline commissioning.
Spill Prevention and Response Plan Page 6; Table 5-1	There should be a specific protocol in place for spills in the vicinity/with the potential to affect archaeological and burial sites. This protocol should outline steps that prioritize protecting the site.	The Spill Prevention and Response Plan is in place to mitigate the risk of a spill and to minimize the impact of a spill, regardless of the location. A specific protocol will be added to Table 5-1 to address "Spill Response - in proximity to known archaeological site". This will be added upon completion of the Stage 2 archaeology assessment and prior to construction.
Spill Prevention and Response Plan Page 6; Section 6	There needs to be a compensation fund in place so that in the event a spill impacts an HWN archaeological or burial site, we are at least compensated for this impact.	A compensation fund is outside of the scope of this plan. It is not standard industry practice to put in place a compensation fund for construction activities in advance of an unknown event.
Spill Prevention and Response Plan Page 7; Table 6-1	How will Imperial determine which are the appropriate Indigenous communities?	Indigenous communities that require notification in the event of a spill are identified in Appendix B: Spill Reporting Contacts. All 4 communities currently being engaged on the Project will be notified in the event of a spill anywhere along the Project construction alignment.
Chance Find Procedure Page 1; Section 1	The appropriate term here is "unknown" not "unidentified"	Update will be made.
Chance Find Procedure Page 1; Section 1	If Imperial intends to outline the steps to take in the event that human remains or ossuaries are discovered in this document, the introduction needs to make that clear.	Update will be made as an addition of a separate bullet referencing human remains or ossuaries.
Chance Find Procedure Page 1; Section 1	Throughout this document, Imperial repeats that the likelihood of uncovering chance finds is low. We think this is not true, and we also think that framing this protocol in that way will discourage people from exercising the caution necessary during the construction phase.	Imperial appreciates the HWN perspective on the likelihood of chance finds. Regardless of the perceived likelihood, Imperial's expectation is that all on-site personnel follow this chance find plan and associated training and exercise caution throughout the construction phase.
Chance Find Procedure Page 1; Section 1	The appropriate term is "burnt" not "cooked".	Update will be made.
Chance Find Procedure Page 1; Section 2	Committing to adhere to regulatory requirements is not sufficient. Imperial's plan should explicitly commit to honoring Indigenous rights, promoting reconciliation, and abiding by UNDRIP.	This section is included to specifically identify regulatory requirements. It does not preclude additional commitments. Imperial conducts business in a manner that respects the land, environment, rights and cultures of indigenous communities in accordance with the laws of Canada and corporate policies and guidelines that underlie the company's commitment to ethics, equity, environment and safety. Imperial continues to respond to the reconciliation calls to action for business through enhanced consultation, workforce and business opportunities.
Chance Find Procedure Page 2; Section 3.2	Please see the following/next comment	Update will be made to clarify that "The EPC, working with the Project Archaeologist, is responsible for the development, design and supervision of the implementation of the Chance Find Plan".

Chance Find Procedure Page 2; Section 3.2	This work should be done by the Consultant Archaeologist, not the EPC. All proposed mitigation measures need to comply with the 2011 MTCS Standards and Guidelines, as a minimum. Consultant Archaeologists have knowledge of what is appropriate in terms of designing mitigation measures for archaeological resources, whereas EPCs are not experts in this area.	Highlighted bullet "Selecting and designing chance find measures" will be moved under the responsibility of the Project Archaeologist.
Chance Find Procedure Page 2; Section 3.5	If the Consultant Archaeologist is not the HWN's archaeologist, a section needs to be included here outlining the involvement of the HWN/Indigenous communities in training and monitoring under the Chance Find Protocol.	On-site personnel will receive training developed by the Project Archaeologist regarding compliance with this plan. Imperial is open to receiving feedback from HWN on content related this training and incorporating feedback as appropriate.
Chance Find Procedure Page 2; Section 3.5	The development and design of the plan needs to be assigned to the Consultant Archaeologist, and the Archaeologist needs to consult with the HWN/Indigenous communities	The construction contractor will have ultimate responsibility and accountability for development and implementation of this plan. The plan will be developed in consultation with the Project Archaeologist. Imperial is committed to sharing this plan any updates with Indigenous communities and incorporating their feedback as appropriate.
Chance Find Procedure Page 2; Section 3.6	This should be "newly identified archaeological & paleontology resources," not only "sites." Isolated finds needs to be included in the plan.	Update will be made.
Chance Find Procedure Page 2; Section 3.6	This should be "findings" instead of sites.	Update will be made.
Chance Find Procedure Page 3; Section 4	The focus needs to be on "impacts" not "effects".	Update will be made.
Chance Find Procedure Page 3; Section 4	Human remains are not cultural resources and they should be dealt with separately because they are to be managed in a different way than archaeological resources.	Acknowledged. Update will be made as follows: "The scope of the Chance Find Plan includes interred human remains, cultural heritage sites and archaeological material such as prehistoric or historic objects (artifacts), features, structural remains and landscape modifications." The chance find procedure for human remains is specified separately in Table 4-1.
Chance Find Procedure Page 3; Section 4	This should be "resource" not "material."	Update will be made.
Chance Find Procedure Page 3; Table 4-1	To be added: Take pictures of the findings and record the location of the specimen(s).	Update will be made.
Chance Find Procedure Page 3; Table 4-1	This preliminary assessment must be done in consultation with HWN.	Update will be made such that the Project Archaeologist or designate, in consultation with on-site Indigenous monitors will assess the find.
Chance Find Procedure Page 3; Table 4-1	"Local Indigenous communities" doesn't cover the HWN. This needs to be revised throughout to "potentially impacted Indigenous communities'	Update will be made.
Chance Find Procedure Page 3; Table 4-1	This is a good start, but as with the comment above, meeting regulatory requirements is not sufficient. Imperial needs to commit to develop mitigation plans that honour Indigenous communities' requirements, such as ceremonies, repatriation, etc.. Imperial also needs to commit to fund these requirements.	These additional commitments are being discussed separately through negotiation and will not be included in this plan. Imperial conducts business in a manner that respects the land, environment, rights and cultures of Indigenous communities.
Chance Find Procedure Page 3; Table 4-1	Human remains should have a distinct section in this plan. The Human Remains protocol will need to be re-drafted, since currently the actions are not in the right order. (First thing to do is to cease all activities (no buffer; just stop) and then the police / coroner need to be called, etc..) This will need to be discussed further.	The procedure for human remains in Table 4-1 is a distinct section of the plan. Imperial is open to changing the protocol sequence, but will need further input from HWN.

Chance Find Procedure Page 3; Table 4-1	In addition to the highlight comment above, it is necessary to outline with further specificity what will happen in the event that an ossuary is found. In addition, as with the section above, Imperial needs to commit to mitigation plans that honour the HWN;s requirements, such as ceremonies, avoidance of the ossuary, reburial of disturbed remains, etc. Imperial also needs to commit to fund these requirements. This will need to be discussed further.	These additional commitments are being discussed separately through negotiation and will not be included in this plan.
Chance Find Procedure Page 4; Table 4-1	All activities need to be stopped - not just in a small buffer zone - in case of disturbing a potential crime scene.	All construction activities associated with the chance find of human remains will be stopped.
Chance Find Procedure Page 4; Table 4-1	Discovery needs to be reported to the police/coroner first.	Update will be made such that police/coroner notification is first.
Chance Find Procedure Page 4; Table 4-1	After the coroner/police determine that is it not a crime scene, they will pass the case to the archaeologist.	Order of the protocol will be updated.
Chance Find Procedure Page 4; Table 4-1	The archaeologist needs to assess the remains first in order to determine if these are archaeological faunal remains.	Update will be made.

Mississaugas of the Credit First Nation (MCFN)

ROC3462

McArthur, Cheryl

From: Brenda Kennett <b.kennett@pastrecovery.com>
Sent: July 4, 2019 7:42 AM
To: 'Williams, Kelly /C'
Cc: 'Daniel Walker'; 'Jenna Down'; 'Lisa Merritt'; 'Malone, Jessie M'; 'Murillo, Breanna K /C'; 'Curtis Campbell'; Projectmail - Wood E&I Calgary - Consultation
Subject: RE: WFP Stage 2 Field Testing WTFN4030

From: Megan DeVries [mailto:Megan.DeVries@mncfn.ca]
Sent: Tuesday, July 2, 2019 11:55 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>; Peter Epler <Peter.Epler@mncfn.ca>; Williams, Kelly /C <kelly.williams@esso.ca>
Subject: RE: WFP Stage 2 Field Testing WTFN4030

Hello Brenda,

Thank you for providing this information. MCFN-DOCA has some comments on the proposed strategy for Stage 2 in disturbed areas for the WFP project.

It should be noted that all decisions relating to on-the-ground archaeological fieldwork for the WFP project should always be made in consultation with the Field Liaison Representatives and other Indigenous monitors on site. We are concerned at the statement in point one of the proposed strategy that “The appropriate test pit interval […] will be determined by the Field Director” with no specific verbiage indicating the inclusion or consideration of input from the FLRs or the DOCA office.

In the case of disturbed areas or fill deposits, MCFN does not agree that further potential should only be triggered in the case that background research shows the potential for buried cultural deposits. It is the purpose of the archaeological assessment to determine if there are intact, natural topsoil and subsoil that may exist and require survey/testing because of their continued potential to contain cultural materials and features. Therefore, point three should be revised to specify that archaeological potential will continue to exist until it has been thoroughly documented – by background research and a review of terrain/topography – that no natural, intact topsoil and/or subsoil exists in these areas of fill or disturbance, not simply potential buried cultural deposits. If this cannot be adequately determined from the desktop, then point four continues to apply.

As outlined in point four, in areas of remaining archaeological potential that will not be assessed as part of the WFP project because they are not in areas of impact, the Stage 2 should clearly state and label on field mapping that continued archaeological potential exists and further Stage 2 assessment is required. Recommendations regarding the techniques of this Stage 2 field testing should be made in consultation with MCFN and other First Nations.

At this time, MCFN-DOCA has no concerns with the proposed strategy for Parcel WTFN 4030.

Finally, can you please provide an update as to when fieldwork reporting will begin to be circulated to the First Nations for review?

Thank you,
Megan.

ROC3465a (2 pages)

McArthur, Cheryl

From: Nicole Bishop <Nicole.Bishop@erm.com> Email #4
Sent: July 11, 2019 10:33 AM
To: Megan DeVries; Williams, Kelly /C
Cc: Malone, Jessie M; Curtis Campbell; Fawn Sault; Murillo, Breanna K /C; Mark Welsh; Caron Smith; Joelle Williams
Subject: RE: Waterdown-Finch Project-Imperial Oil Ltd-2019 Environmental Field Program

Hi Megan,

We will provide the information closer to the date as we are confirming information on our end still.

Thanks,
Nicole

From: Megan DeVries <Megan.DeVries@mncfn.ca>
Sent: Thursday, July 11, 2019 9:01 AM Email #3
To: Williams, Kelly /C <kelly.williams@esso.ca>; Nicole Bishop <Nicole.Bishop@erm.com>
Cc: Malone, Jessie M <Jessie.m.malone@esso.ca>; Curtis Campbell <Curtis.Campbell@erm.com>; Fawn Sault <Fawn.Sault@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Mark Welsh <Mark.Welsh@erm.com>; Caron Smith <Caron.Smith@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>
Subject: RE: Waterdown-Finch Project-Imperial Oil Ltd-2019 Environmental Field Program

Hi Kelly and Nicole,

Thank you for looping us in. There is a current FLR participation agreement for the Waterdown to Finch project, so FLRs can be supplied for monitoring whenever needed.

Myself and Joelle Williams will create a tentative schedule with the dates already provided below. If you can confirm closer to the date and provide the following specific scheduling information, we will notify you the day before which FLR will be joining the team for the survey:

Anticipated Dates of Fieldwork:
Start Time:
Consultant Company:
Field Director and Cell #:
Stage:
Borden #:
Required PPE:
Meeting Location:
Size of Field Crew:
Attachments: Please include a map outlining the arch site and parking area.

Thank you,
Megan.

Megan DeVries, M.A.

Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
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Email #2

From: Williams, Kelly /C [mailto:kelly.williams@esso.ca]
Sent: Thursday, July 11, 2019 11:34 AM
To: Nicole Bishop; Caron Smith; Megan DeVries; Joelle Williams
Cc: Malone, Jessie M; Curtis Campbell; Fawn Sault; Murillo, Breanna K /C; Mark Welsh
Subject: RE: Waterdown-Finch Project-Imperial Oil Ltd-2019 Environmental Field Program

Hi Nicole-It's actually Megan DeVries and Joelle Williams who coordinate logistics for the monitors. They are very busy and do an awesome job at providing monitor coverage for Imperial projects.

I will let them tell you what methods work best for ensuring that they receive logistical information for their purposes. Thanks! -kelly

---

Email #1

From: Nicole Bishop [mailto:Nicole.Bishop@erm.com]
Sent: Thursday, July 11, 2019 11:26 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>; Caron Smith <Caron.Smith@mncfn.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Curtis Campbell <Curtis.Campbell@erm.com>; Fawn Sault <Fawn.Sault@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Mark Welsh <Mark.Welsh@erm.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil Ltd-2019 Environmental Field Program

Good Morning,

Please see below schedule for the environmental field work

Summer Botanical Survey 1: July 29 – August 2
Summery Botanical Survey 2: August 6 – 9

Fisheries Work: July 30 – August 12 (this is tentative currently as we wait for land access)

Please let us know if you have someone available for the botanical surveys and then we will provide the meeting spots and time for the survey.

Kind Regards,
Nicole

ROC3465b

McArthur, Cheryl

From: Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Sent: July 11, 2019 10:21 AM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-2019 Environmental Field Program

From: Joelle Williams [mailto:Joelle.Williams@mncfn.ca]
Sent: Thursday, July 11, 2019 9:53 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>; Nicole Bishop <Nicole.Bishop@erm.com>; Caron Smith <Caron.Smith@mncfn.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Malone, Jessie M <jessie.m.malone@esso.ca>; Curtis Campbell <Curtis.Campbell@erm.com>; Fawn Sault <Fawn.Sault@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Mark Welsh <Mark.Welsh@erm.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil Ltd-2019 Environmental Field Program

Hello all,

Thank you for providing the upcoming dates for the IO WTF enviro work. I have added them to our schedule. In all future correspondence please email Megan DeVries (megan.devries@mncfn.ca) and cc me (joelle.williams@mncfn.ca)

For all upcoming surveys please provide the following site information:

Anticipated Dates of Fieldwork:
Start Time:
Consultant Company:
Field Director and Cell #:
Stage:
Borden #:
Required PPE:
Meeting Location:
Size of Field Crew:
Attachments: Please include a map outlining the site and parking area.

If any of this information changes, please let us know as soon as possible. It is important that the correct information is relayed to the monitors in a timely manner.

I will email you the day before fieldwork is set to begin and let you know which FLR monitor will be joining you along with their contact information.

Thank you,

Joelle Williams
Archaeological/Environmental Assistant

Mississaugas of the Credit First Nation (MCFN)
Department of Consultation & Accommodation (DOCA)
4065 Highway 6 North, Hagersville, ON N0A 1H0
P: 905-768-4260 | C: 905-870-2918

ROC3466 (2 pages)

McArthur, Cheryl

Email #2

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: July 16, 2019 1:57 PM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Murillo, Breanna K /C; Malone, Jessie M
Subject: FW: Heat-Related Health and Safety Concerns on Waterdown-to-Finch

From: Williams, Kelly /C
Sent: Tuesday, July 16, 2019 3:57 PM
To: 'Megan DeVries' <Megan.DeVries@mncfn.ca>
Cc: Mark LaForme <Mark.LaForme@mncfn.ca>
Subject: RE: Heat-Related Health and Safety Concerns on Waterdown-to-Finch

Miigwetch Megan,

Imperial does take health, safety and well-being of people very seriously. This is an issue I will provide immediate follow-up on. Thank you for bringing this to our attention. -kelly

---

Email #1

From: Megan DeVries [mailto:Megan.DeVries@mncfn.ca]
Sent: Tuesday, July 16, 2019 3:47 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>
Cc: Mark LaForme <Mark.LaForme@mncfn.ca>
Subject: Heat-Related Health and Safety Concerns on Waterdown-to-Finch

Good afternoon Kelly,

I am writing as follow-up to concerns raised by one of our FLRs this morning, working with the ASI crew on the Waterdown to Finch project.

As you know, the current temperatures are very hot and humid. This presents challenging conditions for those working outside to properly care for themselves and avoid heat-related sicknesses and/or strokes.

In consultation with the FLRs, other Indigenous monitors, and the ASI field director today it was determined that the hot and humid working conditions were negatively impacting the personnel's health, safety, productivity, and quality control. Our office was initially notified that ASI intended to finish work at noon because of the poor weather conditions. Shortly thereafter, another conversation was held between the FLRs, other Indigenous monitors, and the ASI field director, but at this time the ERM lead on site, Daniel Walker, informed the participants that "Imperial Oil" will not shut down for any temperature and that fieldwork must continue despite the health and safety concerns. The ASI field director acknowledged the effects of the extreme temperatures as well the FLRs' concerns that the quality of the archaeological survey was being impacted by unfocused, heat-exhausted field crews, but said that they were unable to cancel fieldwork for the day because of ERM.

DOCA is extremely concerned with this report from our FLRs for numerous reasons.

Firstly, it was previously communicated to us by you that ERM's role in the project was to assist in coordinating logistics, but that they did not and were not involved in decisions related to fieldwork. It is very alarming to us therefore that once again FLRs report that the field directors responsible for the survey are feeling pressure from ERM and deferring to the judgment of ERM in regards to fieldwork decisions. I want to be clear: it is our view that ERM should not be participating in any conversations regarding the quality of fieldwork or the necessity to conduct survey in poor weather

or field conditions. This conversation should be limited to the field directors (ASI or Past Recovery) and the FLRs/monitors.

Secondly, I know that Imperial Oil takes seriously its responsibility as an employer to ensure the health and safety for all participating personnel on its projects. It is well known the very serious health complications that can arise from working in extreme heat. While there can be methods of mitigating these health risks, ultimately it is the responsibility of the employer to ensure that its employees have a safe and healthy work environment, which means cancelling work if conditions are too difficult. DOCA is aware of the timeline pressures that Imperial Oil is experiencing as part of the Waterdown to Finch project, but compelling crews to continue in times of extreme heat puts all personnel in jeopardy of heat stroke.

What's more, it is well-known that the quality of the archaeological work declines as crews become sluggish and overwhelmed during extreme heat events. MCFN cannot accept the risk of archaeological sites, cultural materials, and human remains being overlooked because crews are not performing at their best. Additionally, working under these conditions is not an effective use of time, as fieldwork progresses much more slowly, even if the decline in quality was not a concern.

Finally, it is MCFN's responsibility as employer to ensure the health and safety of our own staff, which includes advising the FLRs to monitor their reactions to the extreme heat and take appropriate measures to prevent illness in response. This may mean that FLRs will need to take extended breaks or even leave site to avoid the onset of illness. It is inappropriate that fieldwork would continue without their monitoring, as required by MCFN and agreed to by Imperial Oil, because on the proponent's side, the proponent has disallowed their own staff from taking appropriate breaks or ending work when necessary and appropriate to ensure staff wellness.

I thank you in advance for your attention to this matter. There remains a considerable number of weeks of summer where heat may continue to create difficult working conditions and I am very hopeful that Imperial Oil will provide appropriate, conscientious direction to its personnel so that there is no need to revisit this issue with each heat event.

Kind regards,

Megan.

Megan DeVries, M.A.
Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
Mississaugas of the New Credit First Nation (MNCFN)
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ROC3468

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: July 17, 2019 12:36 PM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Murillo, Breanna K /C
Subject: FW: Heat-Related Health and Safety Concerns on Waterdown-to-Finch

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From: Williams, Kelly /C
Sent: Wednesday, July 17, 2019 2:35 PM
To: 'Megan DeVries' <Megan.DeVries@mncfn.ca>
Cc: Mark LaForme <Mark.LaForme@mncfn.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: RE: Heat-Related Health and Safety Concerns on Waterdown-to-Finch

Good afternoon Megan,

Upon receipt of your concerns, I engaged the appropriate persons for immediate action. These actions included an investigation of what occurred in the field and a reiteration of the importance of following the heat stress policy to field crews. The policy provides guidelines for mitigation of heat effects, however everyone's ability to deal with these effects varies from person to person, therefore self-monitoring for heat related illness is an important consideration and part of the policy.

ERM is the prime contractor on site, which means they are wholly accountable & responsible for site safety. The field crews are required to follow ERM's work policies (e.g. heat stress policy) when conducting work in the field. TGH (safety personnel) are on site to help implement these policies and ensure they are being followed.

As it relates to the conduct of archaeology, the licensed permit holder (Past Recovery) is responsible for executing an archaeological field program in a manner that is in line with the MTCS Standards and Guidelines and their own professional judgment. ERM site personnel are there to support field logistics and help with the efficient execution of the field program and while they are welcome to participate in conversations related to field archaeological decisions, they have no authority to make or influence these decisions, unless it is a matter related to health and safety.

I hope this addresses the concerns from yesterday. Please contact me if you wish to further discuss.

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

ROC3471

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: July 18, 2019 12:15 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
Sent: Thursday, July 18, 2019 2:14 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>; b.kennett@pastrecovery.com
Subject: RE: WFP Stage 2 Archaeology Program - Past Recovery and ASI Field Crew Roles

Hi Megan,

I here are the responses to request for information regarding updates and tracking. I also am taking the feedback your provided in our phone conversation into consideration at our next meeting with the team. Any other suggestions you would like to put forward would also be appreciated. Miigwetch! -kelly

1. Comprehensive tracking of project parcels and assessment progress for each. ERM will add an additional "Status" column to the weekly summary table that indicates % complete and plans to complete.
2. Preliminary in-field results detailing identified artifacts, findspots, and/or sites for each parcel. ERM will continue to include preliminary in-field results in the weekly summary table. Imperial will be providing an update on the Project archaeology soon, including plans for reporting (and reviews) on the Stage 2 field work.
3. Record of pertinent in-field discussions between crew leads and FLRs/Indigenous monitors. As MCFN FLRs are completing regular reporting to MCFN, ERM will include significant in-field discussions in the weekly summary, as appropriate. If MCFN has concerns regarding the documentation of in-field discussions, please let us know.

From: Megan DeVries [mailto:Megan.DeVries@mncfn.ca]
Sent: Friday, June 14, 2019 12:55 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

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.

ROC3475a (2 pages)

Imperial

July 26, 2019

Mark LaForme, Director
Megan DeVries, Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
Mississaugas of the Credit First Nation
mark.laforme@mncfn.ca
megan.devries@mncfn.ca
Copy to Chief R. Stacey Laforme stacey.laforme@mncfn.ca

Via email

Dear Mark and Megan,

Re: Heat-Related Event and Proactive Steps to Address the Situation

This letter is to address a heat-related event that occurred during the Waterdown to Finch Stage 2 archaeology program on July 19, 2019 with a field liaison representative (FLR) and the recent issue on site regarding temperature and humidity readings and associated work expectations.

Imperial appreciates MCFN's concerns, and wants to work with MCFN to address them. Imperial takes these types of events very seriously.

Due to these concerns, Imperial has temporarily paused work on the Stage 2 archaeology program. Safety is our first priority. Work will recommence when an appropriate plan is in place to address the situation. Currently, we are working on initial ideas for the plan and will continue to engage MCFN in a transparent manner as we develop solutions.

Our understanding of the July 19, 2019 heat event is that a FLR began to display heat-related symptoms. The FLR was moved to a shaded area and provided water. The affected FLR was taken to an emergency facility by another FLR. Concerns were raised about the reaction of Imperial's contractors to the event, and about ensuring steps are in place to prevent a future event. Also, concerns were raised about a respectful work environment.

To provide clarity, Imperial is the owner of the Waterdown to Finch Project. Given the size and the scope of the project, Imperial engages several contractors, who in turn engage several subcontractors, to assist with various parts of the project. Site contractors and subcontractors include UPI, ERM, TGH Safety, ASI, Past Recovery, and others. Given the number of parties involved, it is understandable that the concerns raised related to work supervision and authority, specifically as it relates to ensuring safe work on site in the heat, and Imperial is committed to further clarifying roles and responsibilities on site.

While we work to progress a plan, we highlight below certain principles that govern all site work, the existing safeguards in place, and the steps that may be taken to address the situation, and to ensure that it is not repeated.

1. Respectful Communication and Conduct: Imperial expects that all workers on site, regardless of their role or the circumstances, be courteous, respectful and mindful of their words and actions. *Going forward, if at any time you believe these expectations were not (or are not) being met, please advise Kelly Williams, Imperial Community Relations Officer, so that Imperial can ensure that events are investigated and appropriate action is taken.*

2. Working in Heat: The recent heat wave has created challenges. Imperial continues to work to proactively ensure that work is conducted in a safe, effective and efficient manner. All efforts will

be made to mitigate the potential for heat illness in the field. In the event the humidex reaches a point where work cannot continue safely or has reached 42°C, all non-essential work will be stopped. Other steps are taken (i.e., slower pace of work, more frequent breaks, increased water consumption) at humidex levels well below the stop work cut-off. This will be evaluated onsite in real-time conditions.

3. Support for FLRs: The health, safety and well-being of everyone on the site is a priority regardless of their role in the program. The expectation is that assistance and support will be provided to FLRs (and everyone on site) in the event of a health and safety incident – including providing all necessary and available supports to ensure access to prompt and effective medical care.

4. Stop Work Orders: Everyone on site has the right to refuse work they think is unsafe. Furthermore, UPI, the prime contractor for the project and Imperial have the authority to stop work not related to safety. The subcontracting entities (ERM, Past Recovery and ASI) are to consult UPI or Imperial before stopping work for a reason *other than safety*. From a safety standpoint, ERM and TGH have the authority to stop all site work when related to safety.

A baseline expectation is that all contractors take steps to prevent safety incidents, including heat illness incidents. Furthermore, the expectation is that if an incident occurs, contractors and others assist in identifying and assessing next steps and ensure appropriate medical attention has been received, including transportation to an emergency facility, in the event of a health and safety event.

Imperial has reiterated these expectations to our contractors, including UPI, TGH Safety, ERM, Past Recovery and ASI, who have reaffirmed their commitment to ensuring a safe and respectful workplace. We will continue to engage our contractors to ensure these expectations are understood, and followed and the plan we are developing currently will help facilitate this.

Imperial is committed to a work environment that fosters mutual employee respect and positive working relationships. Conduct contrary to this is considered unacceptable in our workplace. It is Imperial's expectation that our contractors understand and respond in a way that is considerate and coordinated.

Imperial remains highly involved in the Waterdown to Finch Stage 2 archaeology field program to ensure project expectations are being met. As noted above, Imperial will continue to engage MCFN in a transparent manner as we work to resolve these issues.

At any time, should you, or your FLRs, have concerns related to the work environment, please bring these concerns to Kelly Williams, Imperial Community Relations Officer (kelly.williams@esso.ca or 519-328-8681).

Thank you for your time and attention.

Sincerely,

Martin Bates

Martin Bates, Engineering Maintenance & Projects Manager
martin.bates@esso.ca

on behalf of

Ryan Klue
Waterdown to Finch Project Manager of Execution
587.476.3095
ryan.a.klue@exxonmobil.com

cc. Jessie Malone, Environment & Regulatory Advisor, jessie.malone@esso.ca
Kelly Williams, Community Relations Officer, kelly.williams@esso.ca

ROC3475b

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: July 26, 2019 2:28 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch-Imperial Oil Ltd-Correspondence
Attachments: Imperial WatFin Letter to MCFN.pdf

From: Williams, Kelly /C
Sent: Friday, July 26, 2019 4:09 PM
To: 'Mark LaForme' <Mark.LaForme@mncfn.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Peter Epler <Peter.Epler@mncfn.ca>; Kailey Thomson <Kailey.Thomson@mncfn.ca>; Chief, R Stacey Laforme <Stacey.Laforme@mncfn.ca>
Subject: Waterdown-Finch-Imperial Oil Ltd-Correspondence

Good afternoon Mark and Megan,

Hope you are doing well. Megan-I received your message and look forward to your return next month, and will keep in touch with Peter.

I wanted to follow up on the recent events that have strained Imperial's relationship with your office and the monitors you have empowered to represent your Nation's interests during Imperial's field projects. Imperial has provided assurances and worked to reinforce direction to our onsite teams. However, at this time, Imperial recognizes that immediate action has to be taken. Imperial has made the decision to pause the Waterdown to Finch Stage 2 program to ensure an appropriate and effective resolution is found. ERM will notify you when the program will resume.

The attached correspondence from Imperial is the first step in this resolution. The project team understands the importance of providing clarity on how we can address these concerns and are working together to provide a plan for Mississaugas of the Credit First Nation to review. It will contain actionable items to facilitate the establishment of trust and confidence in Imperial and its contractors. I also want to take this opportunity to introduce Ryan Klue, who is copied in the correspondence, and will be joining the Waterdown to Finch Project to lead construction activities.

We have a long road before us on this project, and it is my hope that continuous communication and a willingness to listen to each other's point of view will make that road a lot smoother. Thank you for your continued efforts in making this possible.

Please let me know if you have any questions and I will be in touch with you next week.

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

ROC3477a (2 pages)

August 1, 2019

Mark LaForme, Director
Megan DeVries, Archaeological Operations Supervisor
Department of Consultation and Accommodation (DOCA)
Mississaugas of the Credit First Nation
mark.laforme@mncfn.ca
megan.devries@mncfn.ca
Copy to Chief R. Stacey Laforme stacey.laforme@mncfn.ca

Via email

Dear Mark and Megan,

Re: Waterdown to Finch Stage 2 archaeology program restart plan

This letter is to outline the plan for the Waterdown to Finch Stage 2 archaeology program restart. The plan aims to improve the work environment, clarify roles and support safe practices onsite.

Personnel

Imperial's prime contractor for the Project, UPI, is mobilizing three field staff to provide leadership during program activities. UPI will have a Construction Manager, Environmental Coordinator and Safety Manager on site starting the week of August 5 to take the lead on field work.

Roles and Responsibilities

- UPI Construction Manager will be introduced to the field team as the Single Point of Accountability (overall authority) in the field.
- UPI Environmental Coordinator and Safety Manager will report to the Construction Manager.
- UPI Environmental Coordinator will be the point of contact (POC) for all environmental subcontractors.
- UPI Safety Manager will be the POC for all Safety issues.
- Past Recovery and ASI Field Directors will continue to be the POC for all archaeology-specific items. Imperial prefers that these items be addressed in the field if at all possible.
- Imperial's Community Relations Officer, Kelly Williams, will continue to be the POC for archaeology-specific requests that exceed Ministry of Culture, Tourism and Sport Standards and Guidelines and the Field Directors' professional opinion. In such cases, field work will continue while Imperial and MCFN discuss resolution of the issue.
- With respect to workplace issues outside of safety and archaeology, i.e., respectful workplace, if potential issues are not adequately addressed in the field, Kelly Williams will be the initial POC.
- ERM will continue to be responsible for field logistics.
- Field Liaison Representatives (FLRs) will continue to participate in and observe field work; ensure community perspectives and priorities are considered; and provide input regarding the project.
- TGH safety monitors are responsible for issuing work permits on behalf of Imperial Operations. They are responsible for implementing Imperial's safety policies and ensuring that they are being followed.

Training

- Prior to the Tuesday, August 6 restart, Imperial will provide an Indigenous Awareness briefing to the supervisor-level contractors, including the new Construction Manager, Environmental Coordinator and Safety Manager.

- Within the next month, Imperial will deliver a Project-specific Indigenous Awareness training course to all field contractors, including those participating in the environmental field work.
- UPI's Program Construction Manager will be in the field to provide project on-boarding to the new UPI personnel.

Communication
When field work is underway, there will be a 6am Daily Supervisors Meeting at a central location to be provided with the regular logistics communications. FLRs are invited to attend this meeting.

Safe Working in Heat
A process for resolution of heat-related issues has been developed to ensure the correct on-site person is involved. New instruments for measuring temperature, dew point and humidity are being purchased to ensure the accuracy and consistency of the readings. A procedure for resolution of issues has been developed to guide the process to the correct person.

For the summer months, the work day will start at 7am to take advantage of cooler temperatures earlier in the day.

As stated previously, Imperial is committed to a work environment that fosters mutual respect and positive working relationships. Conduct contrary to this is considered unacceptable in our workplace. It is Imperial's expectation that our contractors understand and respond in a way that is considerate and coordinated. Imperial remains highly involved in the Waterdown to Finch Stage 2 archaeology field program to ensure project expectations are being met. As noted above, Imperial will continue to engage your community in a transparent manner as we work to resolve these issues.

Please contact Kelly Williams, Imperial Community Relations Officer (kelly.williams@esso.ca or 519-328-8681) with any questions.

Thank you for your time and attention.

Sincerely,



Ryan Klue
Waterdown to Finch Project Manager of Execution
587.476.3095
ryan.a.klue@exxonmobil.com

cc. Jessie Malone, Environment & Regulatory Advisor, jessie.malone@esso.ca
Kelly Williams, Community Relations Officer, kelly.williams@esso.ca
Martin Bates, Engineering Maintenance & Project Manager, martin.bates@esso.ca

ROC3477b

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: August 1, 2019 6:10 PM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Curtis Campbell; Allidina, Zahra
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Re-start Plan
Attachments: 2019.08.01 Imperial WatFin Letter to MCFN.pdf

From: Williams, Kelly /C
Sent: Thursday, August 1, 2019 8:08 PM
To: 'Mark LaForme' <Mark.LaForme@mncfn.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Peter Epler <Peter.Epler@mncfn.ca>; Chief, R Stacey Laforme <Stacey.Laforme@mncfn.ca>; Kailey Thomson <Kailey.Thomson@mncfn.ca>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Bates, Martin <martin.bates@esso.ca>; 'Jenna Down' <Jenna.Down@erm.com>
Subject: Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Re-start Plan

Dear Mark and Megan,

As mentioned in the email from Jenna Down from ERM, the Stage 2 Archaeology Program on the Waterdown-Finch Project will re-start on Tuesday, August 6. She will be in touch with you tomorrow regarding the logistics for your FLR. Attached is a letter from Ryan Klue, the construction project manager, that outlines the plan in the communication sent to MCFN last week.

The letter is meant to provide MCFN with reference information on a variety of field issues. Please let me know if you have any questions and have a great holiday weekend!

Best regards,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell

ROC3479a

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: August 7, 2019 6:33 AM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Jenna Down; Daniel Walker; James Watson
Subject: FW: Waterdown-Finch Project-Parsons Site-Borehole Update-Imperial Oil Ltd
Attachments: B.1 WFP - BH136 and 137 Memo.pdf

From: Williams, Kelly /C
Sent: Wednesday, August 7, 2019 8:32 AM
To: Megan DeVries <Megan.DeVries@mncfn.ca>; 'Peter Epler' <Peter.Epler@mncfn.ca>
Cc: Mark LaForme <Mark.LaForme@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Nicole Bishop <Nicole.Bishop@erm.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; b.kennett@pastrecovery.com
Subject: Waterdown-Finch Project-Parsons Site-Borehole Update-Imperial Oil Ltd

Good morning Megan/Peter,

Please see the attached memo from Past Recovery regarding the Parsons Site and the assessments that took place there last month. The memo also includes a recommendation to avoid further disturbance to complete the borehole investigations for your review. Imperial would greatly appreciate it if you could forward any questions/comments you may have about the assessments and the recommendation by August 21. In addition, a teleconference meeting can be set up to discuss further if you wish.

Thank you once again for your time and attention to this matter.

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

Memo

To	James Watson (UPI); Jessie Malone (Imperial); Breanna Murillo (Imperial); Kelly Williams (Imperial)
From	Brenda Kennett (Past Recovery)
Cc	Jenna Down (ERM); Daniel Walker (ERM); Curtis Campbell (ERM); Nicole Bishop (ERM); Emma Bright (ERM)
Date	August 6, 2019
Subject	Parsons Site – Borehole Assessment Update

INTRODUCTION

This memo is prepared to address the recovery of archaeological materials in proximity to the Parsons Site while undertaking initial Stage 2 test pitting at the proposed location of borehole (BH) 136 and to present an alternate strategy to complete the geotechnical investigations required in the vicinity of the Parsons Site, particularly BH136, BH137 and BH135.

BH136

On July 3, 2019, the field crew began the Stage 2 assessment of the BH136 location at the Parsons Site. The plan was to excavate four shovel test pits placed at 5m intervals and centred on the stake marking the location for BH136 followed by a 1m x 1m unit directly over the borehole location. Work began with the excavation of the four test pits (Figure 1).

The Stage 2 assessment was carried out by Archaeological Services Inc. (ASI) on behalf of Past Recovery, the licenced archaeologist. The ASI field notes record the following:

- The two test pits south of the borehole showed a sandy loam topsoil (Layer 1) and beige silt (Layer 2) overlying a thin (5cm) layer of buried natural topsoil (Layer 3) and subsoil (Layer 4). No artifacts were recovered from these test pits. These negative test pits are designated on Figure 1 as single white dots located southwest and south east of BH136 pin (red triangle).
- The test pit northwest of the borehole showed a similar profile, but lacked Layer 3. One piece of pottery was recovered from Layer 1 in this test pit. This test pit is designated as ‘WPT2’ (Waypoint 2) on Figure 1.
- The test pit northeast of the borehole showed a sandy loam topsoil overlying a possible feature, and yielded 10 pieces of pottery and one flake. The potential feature consists of orange silt mottled with black silt and charcoal, and spanned the entire floor of the test pit at a depth of 30cm. This test pit is designated as ‘WPT1’ (Waypoint 1) on Figure 1.

WTP1

While 10 pieces identified as pottery were collected in the field, once cleaned and examined in more detail in the lab, five of these were determined to be small pieces of natural sandstone. Thus, the artifact collection from WPT1 consists of five small (< 1cm diameter) body sherds and one small (< 1cm) Onondaga chert flake fragment.

The excavation of WPT1 was stopped at the possible feature to prevent damage. As result, the test pit has not been fully excavated to subsoil. The context of the pottery sherds and lithic flake recovered from WPT1 is less clear owing to the presence of the partial feature and only being partially excavated.

WTP2

The single pottery sherd from WPT2 was found in the upper (modern) topsoil suggesting that it is in an unnatural, or secondary, context. WPT2 encountered subsoil at a depth of 30cm and was excavated 30cm into subsoil, and as such has been completed.

Following the discovery of the artifacts and the possible feature, the findings were discussed with the on-site archaeology monitors, Field Liaison Representative (FLR) and the Huron Wendat Nation (HWN) office. Based on this, it was mutually agreed that work at this location would cease until an additional strategy was developed.

BH136 Location

BH136 is situated on a gentle slope below the main terrace occupied by the Parsons Site village and above the east side of Black Creek. The BH is located approximately 20m west of the site's recorded limit and within 50m of a documented midden and palisade wall (Figure 2).

Figure 2 depicts the limits of two assessments from 1989-90 and 2013. The 1989-90 excavation was completed by ASI and associated with a watermain installation[4] while the 2013 excavation was completed by URS Corp. and associated with the construction of a multi-use pathway[5] (Figure 3). The placement of the BH is approximately 20m south and east of this pathway and approximately 10m south of the southern edge of the watermain trench (Figure 3 and Figure 4).

BH136 Recommendation

Past Recovery, Environmental Resource Management (ERM) and Imperial propose moving BH136 approximately 23m west on to the previously assessed pathway. The pathway was assessed by URS Canada archaeologists in 2011 through construction monitoring. The assessment removed all topsoil with a Link-Belt 210 excavator equipped with a smooth ditching bucket. The area was subsequently shovel shined to confirm no cultural features or archaeological resources were present in subsoil (see Figure 5). The report concluded that the pathway is considered clear of any further archaeological concern.

The proposed new location of Borehole 136, approximately 23m west of the current location, would bore through the cement pathway and extend into an area clear of archaeological concern (Figure 6). This would mitigate concern of impacts to the Parsons Site raised at the previous location with the artifacts and potential feature encountered by the ASI crew on July 3rd.

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[4] The c. 18m wide watermain trench across the Parsons Site was fully excavated by ASI in 1989-90 and Ontario Archaeology, Volume 65/66, 1998 provides a full discussion of the (pre-1998) archaeology at the Parsons Site.

[5] A Stage 2 assessment (shovel test pits at 5m intervals) of the c. 30 kilometres of multi-use pathways was completed by URS in 2010 (URS 2013). In 2011 URS completed a Stage 4 assessment of the pathway across the Parsons Site (above the watermain trench) which included construction monitoring of the c. 3.5m wide pathway excavation (URS 2015).

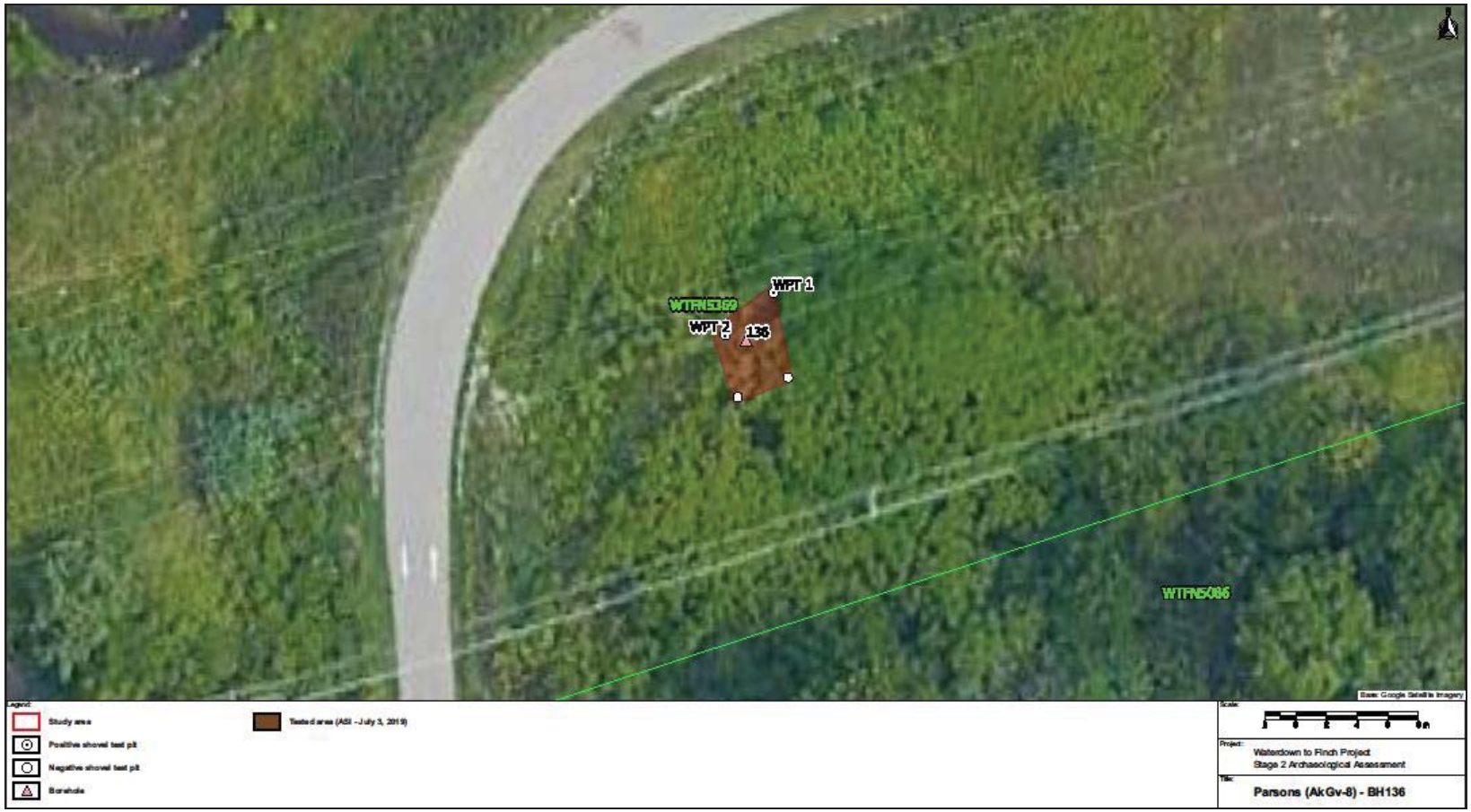

Figure 1: Positive test pits (WPT1 and WPT2) and negative test pits (white dots) excavated at BH136. (Trimble data from ASI fieldwork, July 3, 2019)

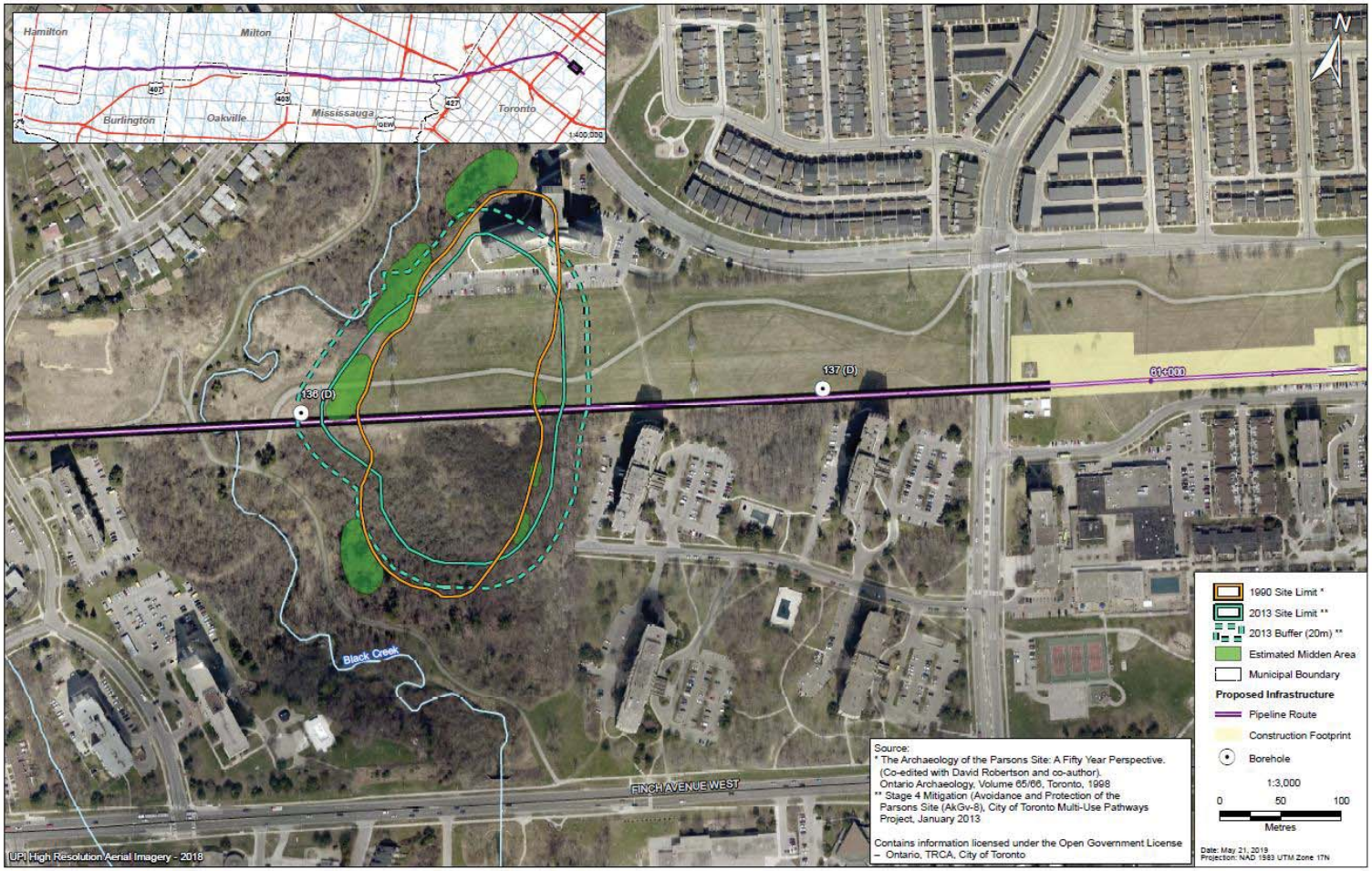

Figure 2: Overlay of all archaeological assessments (1998-2013) and the original locations of boreholes 136 and 137.

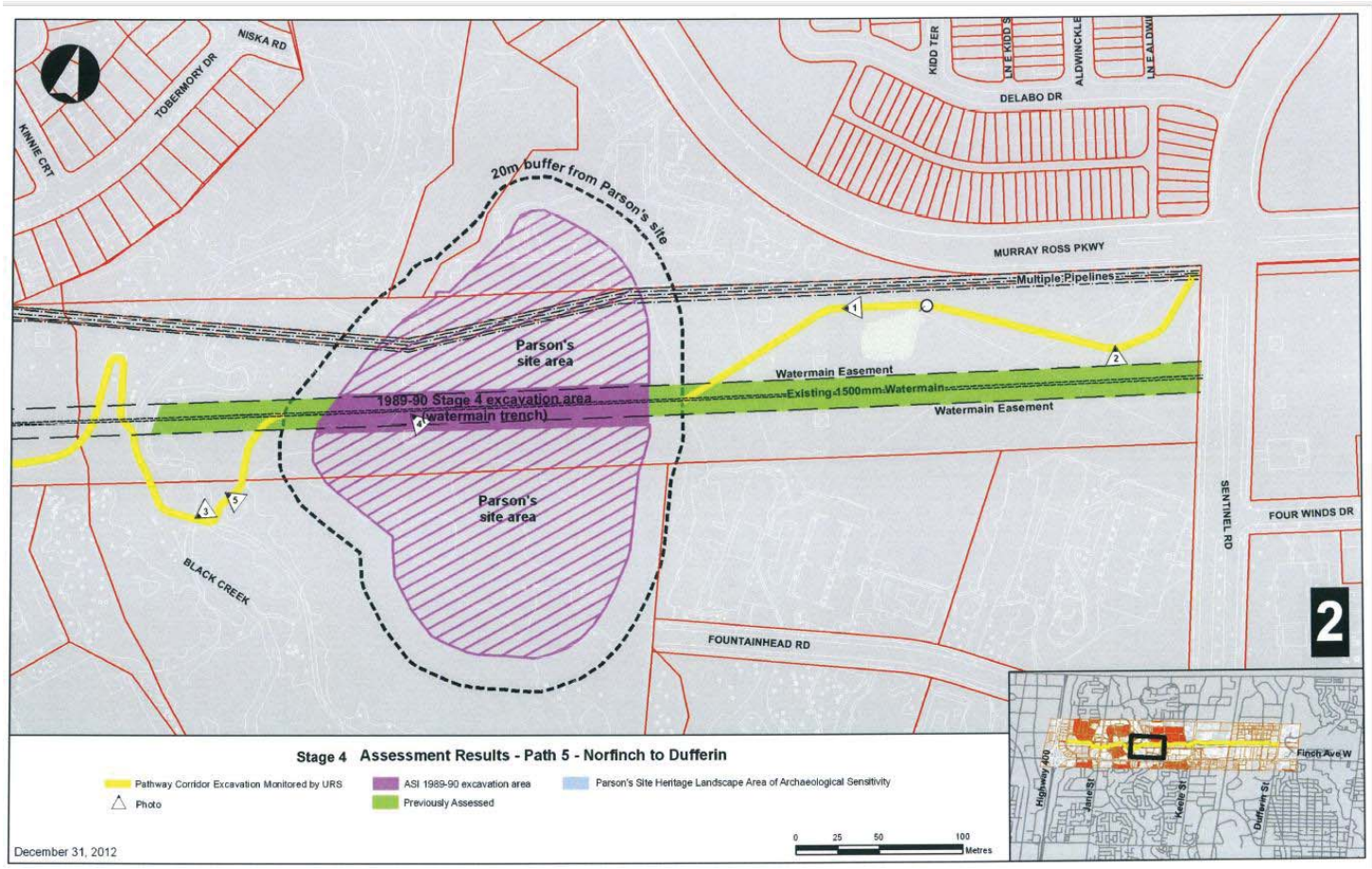

Figure 3: Pathway excavation (yellow) cleared all natural soils and confirmed no features within the pathway. (URS Corporation, *Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8)*, January, 2013).



Figure 4: View of BH136 during Stage 2 testing, looking east. (The apartment building on Fountainhead Road is visible in the background. The watermain trench would be situated along the left hand edge of this photograph as the southern edge of the watermain trench is immediately north of the hydro tower.) (Past Recovery 2019**)**



Figure 5: Photo depicting Gradall removing all topsoil from pathway location during URS Stage 4 Assessment. Assessment confirmed no features were present through monitoring and shovel shinning subsoil (URS Corporation, *Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8)*, April 2015).

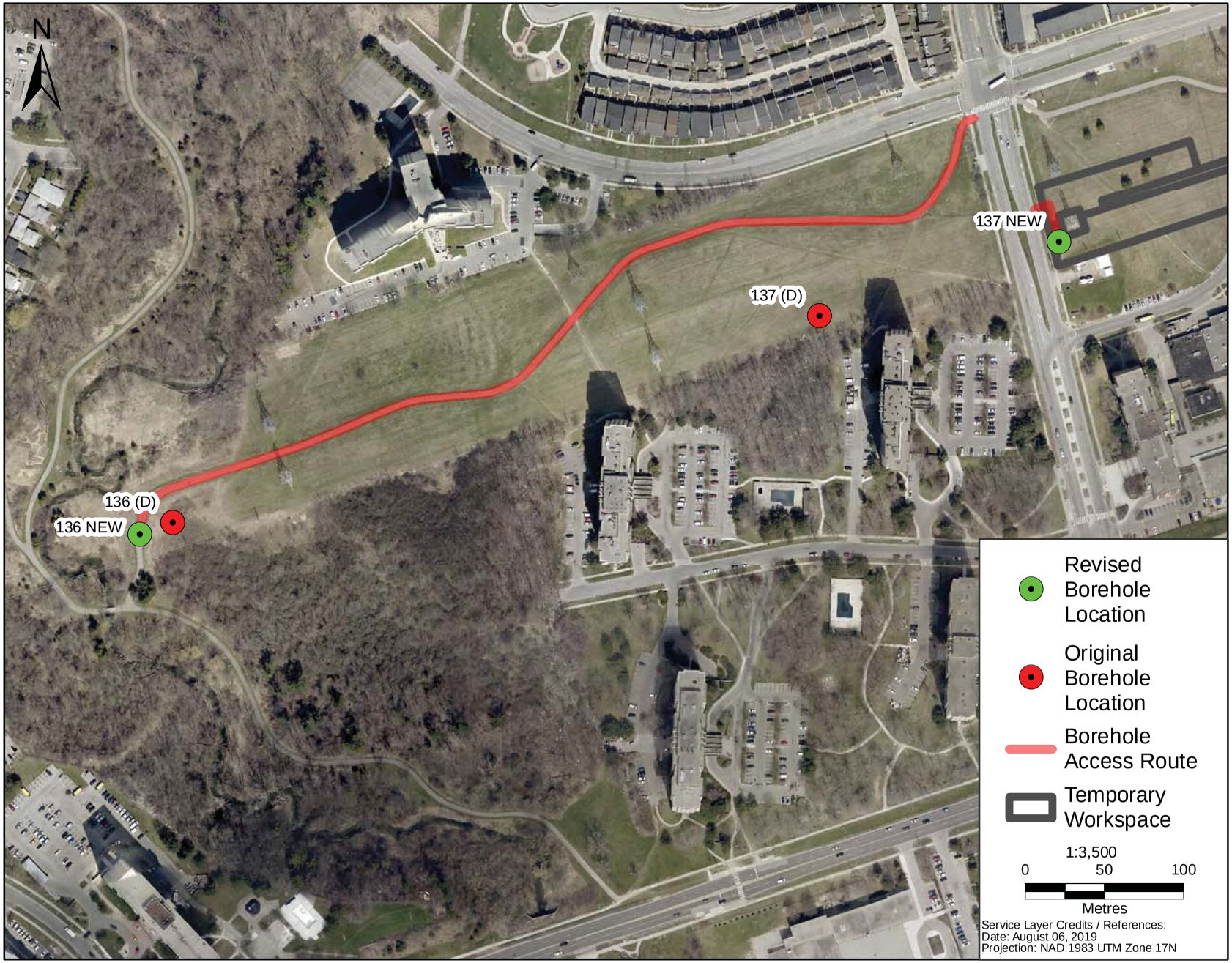

Figure 6 **Revised Borehole Locations 136 and 137**

BH137

To date, no Stage 2 assessment has been undertaken at this BH location. The original location for BH137 was approximately 200m east of the eastern palisade wall as indicated by the 1989-90 ASI watermain excavation (see Figures 2 and 3) and therefore outside the known limits of Parsons site. The BH was also located approximately 10m south of the southern edge of the watermain trench. Although it is located further to the north, the URS report on the Stage 3 and Stage 4 assessments for the pathway indicated considerable disturbance across this parcel (WTFN5369) to the east of the Parsons Site.

Similar to other BHs located within close proximity to the Parsons Site, the Stage 2 plan was to excavate four shovel test pits and a 1m x 1m unit at BH137. Access for the drill to BH137 was to be via the paved pathway from Sentinel Road and then south across the HONI corridor to the BH location, crossing the c. 18 m wide watermain trench. The off-pathway portion of the access route was to be matted.

With the recent findings at BH136, Past Recovery, ERM and Imperial propose moving BH137 to the east side of Sentinel road, approximately 160m from the current location of BH137, which would be closer to the exit point of the HDD (Figure 6). This proposed location would be accessed from Sentinel Road, and then south across the HONI corridor to the BH location. The off-pathway portion of the access route will be matted.

As mentioned above for the current location of BH137, we would propose to proceed with the 4 shovel test pits and the 1 m x 1m unit at this BH location. If cultural material is identified during this initial assessment, work will stop, and we will seek input from Indigenous Communities. Next steps could include Stage 3/4 excavation or moving the BH location.

BH135

BH135 is located within the HONI corridor approximately 340m west of Black Creek (c. 440 m west of the western palisade wall for the Parsons village). BH135 is also located immediately south of the watermain trench and disturbance is present across much of the parcel (WTFN5363).

A 30m buffer around BH135 was test pitted at 5m intervals July 8, 2019. Test pit soil profiles were deemed disturbed and no cultural material was encountered in any test pits.

An additional 1m x 1m test unit was excavated over BH135 on July 10, 2019 to confirm disturbance, the unit soil profile was consistent with test pit soil profiles. No cultural material or features were found in the test unit.

REFERENCES

2019. Past Recovery, Trimble data from ASI fieldwork, July 29 2019

1998. Ontario Archaeology, Volume 65/66

URS Corporation 2013. Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8). Final Report.

2019. Imperial Oil, Google Earth .KMZ file (provided July 29, 2019)

URS Corporation 2015. Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8). Final Report.

ROC3483 (3 pages)

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: August 16, 2019 3:59 PM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Murillo, Breanna K /C
Subject: FW: Waterdown to Finch

Email #3

From: Williams, Kelly /C
Sent: Friday, August 16, 2019 5:59 PM
To: 'Mark LaForme' <Mark.LaForme@mncfn.ca>; 'Matty' <mlaforme69@gmail.com>
Cc: 'Megan DeVries' <Megan.DeVries@mncfn.ca>; 'Peter Epler' <Peter.Epler@mncfn.ca>; 'Joelle Williams' <Joelle.Williams@mncfn.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>
Subject: RE: Waterdown to Finch

Dear Mark,

Imperial acknowledges that the archeology field program for Waterdown to Finch Project continues to be strained. We have made the decision to once again put the program on pause until further notice. We have heard concerns from many fronts, not just from MCFN. This includes issues with program execution and coordination by Imperial and its subcontractors. Imperial is taking the time to analyze program communication and logistics deficits to create practical solutions that will promote a more successful work environment for everyone. This involves working closely with the leadership of our subcontractors in the next few weeks.

Many thanks to you and your team for taking the time to provide a careful analysis on how we can improve our communication and resolve field issues. This information and the feedback you provided in our conversation this morning are going to be extremely helpful to this overall analysis. If you have other items you wish to have considered in the management analysis, please send them to me before the end of the day on Tuesday, August 20th.

Imperial would like to meet with you and your team in September. If you or your designate can provide me with some meeting dates at your earliest convenience it would be appreciated. Thank you again for your time and consideration. Contact me if you wish to discuss further or have any questions.

Sincerely,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell

From: Williams, Kelly /C
Sent: Friday, August 16, 2019 3:15 PM

Email #2

To: 'Mark LaForme' <Mark.LaForme@mncfn.ca>; Matty <mlaforme69@gmail.com>
Cc: Megan DeVries <Megan.DeVries@mncfn.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>
Subject: RE: Waterdown to Finch

Hi Mark-I just sent a response to your last email. I will review and respond to this one before the end of the day. Thanks!

Email #1

From: Mark LaForme [mailto:Mark.LaForme@mncfn.ca]
Sent: Friday, August 16, 2019 2:57 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>; Matty <mlaforme69@gmail.com>
Cc: Megan DeVries <Megan.DeVries@mncfn.ca>; Peter Epler <Peter.Epler@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>
Subject: Waterdown to Finch

Hello Kelly,

Thank you for your call to me this morning. Subsequent to our conversation I have had the opportunity to meet with Peter, Joelle and Matt LaForme, the Lead FLR on this aspect of the project, to discuss how we will address issues as we move forward. The following is the approach we will implement:

1) When the LEAD FLR – Matt LaForme has an archaeology concern, attempts will be made to resolve the matter in the field. Failing a resolution of the matter in the field, Matt will contact Megan and/or Peter at the DOCA office so they can attempt to resolve the matter directly with the Archaeological Consultant. I do not see you and I getting directly involved in these matters.

2) When the LEAD FLR – Matt LaForme has a management concern regarding UPI/TGH/ERM, he will do the following:
    a) Matt will call Kelly Williams at Imperial Oil to report the concern.
    b) Matt will call Peter/Megan at DOCA to report the concern.
    c) Matt will follow-up with a summary email to Kelly and cc: Mark, Megan, Peter.
    d) Kelly with follow-up with Mark at DOCA with a plan or to develop a plan to resolve issue.
    e) Kelly will relay the plan to resolve issue to the appropriate contractor(s) in field.

Based on the August 1, 2019 letter from Mr. Klue, the following is our understanding of the role(s) of Imperial Oil contractors in the field:

UPI

- UPI Construction Manager will be the Single Point of Accountability (overall authority) in the field.
- UPI Environmental Coordinator and Safety Manager will report to the Construction Manager.

- UPI Environmental Coordinator will be the point of contact (POC) for all environmental subcontractors.
- UPI Safety Manager will be the POC for all Safety issues.

TGH

- TGH safety monitors are responsible for issuing work permits on behalf of Imperial Operations. They are responsible for implementing Imperial's safety policies and ensuring that they are being followed. (This has potential for creating confusion as I'm not certain how this differs from the role of the UPI Safety Manager.)

ERM

- ERM will continue to be responsible for field logistics. (It appears to me that this is the singular role of ERM. If this is indeed the only role of ERM, it is my hope this is made very clear to them and they will therefore refrain from interfering in other management aspects of the project.)

Finally, it is our understanding that it will be made clear to ALL Imperial Oil contractors on site that they must ***"….ensure community perspectives and priorities are considered…."*** and further that the First Nations representatives are free to ***"….provide input regarding the project."***

Kelly, I would ask that if the foregoing is also your understanding, and you are agreeable to the approach being implemented by DOCA, that you please reply signifying your concurrence.

Thank you.

As ever,

Mark LaForme
Director
Department of Consultation and Accommodation (DOCA)
Mississaugas of the Credit First Nation (MCFN)
4065 Hwy. 6
Hagersville, ON N0A 1H0
905-768-4260
http://mncfn.ca/doca
Google Maps: https://www.google.ca/maps/place/MNCFN-DOCA/@42.9718566,-80.0429177,15z/data=!4m5!3m4!1s0x0:0xd52b4642633e9aa2!8m2!3d42.9718566!4d-80.0429177

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ROC3485

McArthur, Cheryl

From: Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Sent: August 21, 2019 2:38 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch Project-Parsons Site-Borehole Update-Imperial Oil Ltd

Email #2

From: Williams, Kelly /C
Sent: Wednesday, August 21, 2019 9:57 AM
To: Peter Epler <Peter.Epler@mncfn.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Mark LaForme <Mark.LaForme@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Nicole Bishop <Nicole.Bishop@erm.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; b.kennett@pastrecovery.com
Subject: RE: Waterdown-Finch Project-Parsons Site-Borehole Update-Imperial Oil Ltd

Hi Peter,

The team will examine your feedback and provide a response. I will be in touch if there are any questions. Thanks again for MCFN's time and consideration in reviewing this memo.-kelly

Email #1

From: Peter Epler [mailto:Peter.Epler@mncfn.ca]
Sent: Wednesday, August 21, 2019 9:24 AM
To: Williams, Kelly /C <kelly.williams@esso.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Mark LaForme <Mark.LaForme@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Curtis Campbell <Curtis.Campbell@erm.com>; Nicole Bishop <Nicole.Bishop@erm.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; b.kennett@pastrecovery.com
Subject: RE: Waterdown-Finch Project-Parsons Site-Borehole Update-Imperial Oil Ltd

Good Morning Kelly,

We have had a chance to fully review this memo. While we have no concerns with the proposed change in strategy we would like the specifics on the HDD that would be going underneath the Parsons Site, including the depth. We are also requesting that Imperial Oil and Past Recovery develop a response strategy in the event of an impact (e.g. frack out/ slumping) due to the HDD to ensure that there is an immediate and appropriate salvage effort.
This memo does not discuss how the finds at BH136 are going to be addressed in the long-term. Will these finds be included with the Parsons site and extend the limits and buffers associated with it or is it going to be treated as a discrete, but related site.
As always, MCFN will require FLR participation throughout the duration of this construction activity.

Please let me know if you have any questions.

Regards,

Peter

Peter Epler, Hons. B.A.
Field Archaeologist
Department of Consultation and Accommodation (DOCA)

ROC3491a (2 pages)

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: September 5, 2019 9:45 AM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Murillo, Breanna K /C
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9
Attachments: Roles and Responsibilities 090519.pdf; Issues Resolution and Communications_ 090419.pdf; Visio-Archy Field Program 090519.pdf

---

From: Williams, Kelly /C
Sent: Thursday, September 5, 2019 11:41 AM
To: 'Mark LaForme' <Mark.LaForme@mncfn.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Peter Epler <Peter.Epler@mncfn.ca>; 'Joelle Williams' <Joelle.Williams@mncfn.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Benschop, Mark <Mark.Benschop@hii-upi.com>; 'Crepeau, Patrick' <Patrick.Crepeau@hii-upi.com>
Subject: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9

Dear Mark and Megan,

The project team has been working very diligently, examining ways to improve the Waterdown-Finch Project archaeology field program, for the past few weeks. Roles and responsibilities have been reviewed and refined. Concrete ways to improve communication and resolve field issues have been created. We are all very much aware that the true test of these efforts will be defined by successful execution.

For your information and review I have attached the following documents for the Waterdown-Finch Project Archaeology Field Program.

1) Roles and Responsibilities
2) Organization Chart
3) Issues and Communication Protocol

Thank you for appointing Matt LaForme to be your lead FLR and the main point of communication for Mark Benschop, the Field Coordinator. Mark, Patrick Crepeau (Construction Manager) and myself will be your main contacts for resolving issues brought forward by Matt when they can't be resolved in the field. **We are inviting all monitors/FLRs to have lunch with the three of us on the first day of the re-start**. **We have reservations for noon at the Tin Cup Sports Grill.**

Tin Cup Sports Grill
1831 Walkers Line
Burlington, ON L7M 0H6

The date for the re-start of the fieldwork is Monday September 9th. I will be out in the field on this day and will be conducting more frequent field visits in the future. An email detailing the logistics will be sent to Megan and Joelle by Mark Benschop. We have an important request regarding the first day. The property to be surveyed is private and the owner has asked that we send them the names of the entire crew who will be working on the parcel. ASI is assigned to parcel ID WTFN0047, which is in Burlington. **If you could kindly send me the names of the FLRs you will be deploying to this site on Monday, before the end of today it would be greatly appreciated.**

Imperial and the project team wish to thank you for your comments and feedback on the program. They were very helpful in guiding the review. If you have comments on these draft documents, please send to me as soon as possible. Contact me anytime you wish, and I follow-up with you via phone tomorrow to discuss any questions or comments you may have.

Sincerely,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell

ROC3491b Attachment - Roles & Responsibilities (7 pages)

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1.3.7 ERM Sub-Surface Clearance (SSC) Staff 4
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1.4.1 MTCS License Holder, Professional Archaeologist (Past Recovery) 4
1.4.2 ERM Archaeology Technical Lead (ATL) 4
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1.7 Imperial Consultation and Engagement Personnel 7
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1.0 ROLES AND RESPONSIBILITIES

1.1 General

The staff structure supporting the archaeological effort is based on a matrix organization. Each person is responsible to the project organizational hierarchy and to their respective organizations. The roles and responsibilities in this section and in the accompanying organizational charts define the project aspect of the matrix.

1.2 Acronyms

AFD	Archaeology Field Director (PR, ASI, and Other)
AFT	Archaeology Field Technicians (PR, ASI, and Other)
ALM	Archaeology Logistics Manager (ERM)
ASI	Archaeological Services Inc.
ATL	ERM Archaeology Technical Lead (ERM)
CCP	Community Consultation Personnel
CM	Construction Manager (UPI)
CRO	Community Relations Officer
CSID	Contractor Supervisor in Database (TGH or ERM)
ERCMP	Emergency Response and Care Management Plan
ERM	Environmental Resources Management (ERM)
FC	Field Coordinator (UPI)
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MTCS	Ministry of Tourism, Culture, and Sports
OA	Office Archaeologist (PR, ASI, and Other)
Other	Potential additional archaeology firm
PR	Past Recovery
PSM	Project Safety Manager (UPI)
ROW	Right-of-Way (CanACRE)
SSC	Sub-Surface Clearance (ERM)
UPI	UniversalPegasus International

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1.3 Logistics Staff

1.3.1 UPI Construction Manager (CM)

Responsible to progress and complete a safe, effective, and efficient archaeology field program to support the project. Single point of accountability (overall authority) in the field. Reports to the UPI Project Manager.

1.3.2 UPI Field Coordinator (FC)

All field crews report to the FC on a daily basis.

Responsible for executing the daily archeology logistics plan that has been approved by UPI CM. Reports to the UPI CM. Interfaces with LM/FLR, CRO, PSM, ALM, ATL, and MTCS License Holder.

1.3.3 ERM Archaeology Logistics Manager (ALM)

Responsible for managing the logistics for the field teams. Responsible for developing the logistics plans, 2-week look-ahead, base plan, reporting progress completion, and any contingencies. Interfaces daily with Stantec and CanACRE on these plans. Reports to the CM. Interfaces with FC, Field Leads, Stantec Survey Crew, CanACRE ROW Coordinator.

1.3.4 ERM Field Lead (FL)

Responsible for overseeing the progress at field level and ensuring field logistics are implemented. Reviews parcel limits with the SSC personnel to ensure the assessment does not encroach outside the defined parcel. Ensuring all field personnel are signed in at the beginning of the day, accounted for during timed breaks/lunch and signed out at the end of the day. Taking daily notes and ensuring information is relayed to the UPI FC and ERM office. Will be CSIDs after going through the Imperial training and approval process. Reports to FC. Interfaces with PSM, Permit Issuer, and ALM.

1.3.5 ERM Field Inspector (FI)

Responsible for completing pre-inspection on parcels prior to archaeology assessment. Inspection duties include identifying: parking capacity and location, vegetation concerns, SSC staking/flagging presence, survey staking, and adequate ploughing methodology. Reports to the ALM. Interfaces with the LC.

1.3.6 ERM Sub-Surface Clearance (SSC) Lead

Responsible for managing the public and private utility locates, overseeing of the SSC field personnel and following up with any sub-surface clearance

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related incidents, near misses or observations. Reports to the ALM. Interfaces with SSC Staff.

1.3.7 ERM Sub-Surface Clearance (SSC) Staff

Responsible for ensuring all public and private locates are completed prior to any intrusive work taking place in the field. This includes completing a visual check of the site to confirm all buried sub surface utilities are painted or staked in the field to identify all sub-surface utilities.

Any questions on site with regards to any signs of a utility will need to be addressed by the SSC Field Lead. They are ultimately accountable for all sub-surface clearances related matters. The SSC Staff also covers the role of FSO. Reports to FL. Interfaces with SSC Lead.

1.3.8 ERM Logistics Coordinator (LC)

Responsible to provide office support to the ALM in managing the logistics for the field teams including 2 week look ahead. Will work with the Field Inspector to ensure site access, parking locations, etc. meet the needs of the field crews. Reports to the ALM. Interfaces with Stantec Survey Crew and CanACRE ROW Coordinator.

1.3.9 CanACRE ROW Coordinator

Responsible for coordinating access for all of the archaeology work. Reports to the CM. Interfaces with ALM, LC.

1.3.10 Stantec Survey Crew

Responsible for staking the areas for archaeological assessment. Reports to the UPI CM. Interfaces with ALM, LC.

1.4 Archaeology Personnel

1.4.1 MTCS License Holder, Professional Archaeologist (Past Recovery)

The license holder for the project with the Ministry of Tourism, Culture, and Sports (MTCS) is responsible for:

Filing the report with the Ministry containing the full details of work done under the license and such other information as the Minister may require.

To ensure the work follows the “Standards and Guidelines for Consultant Archaeologists” issued by the MTCS.

1.4.2 ERM Archaeology Technical Lead (ATL)

Responsible for the archaeological technical aspect of the project including the deliverables of the archaeological field program such as communication of findings to UPI/Imperial, report deadlines and reviews. Have awareness

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of the project footprint and any adjustments from engineering. Reports to the ALM. Interfaces with FC, MTCS License Holder, OA's.

1.4.3 Office Archaeologist (OA) (PR, ASI, and Other)

Responsible for compiling archaeological reports for the MTCS license holder review, obtaining data regularly from the AFD, compiling data from the field to provide accurate progress data for the ERM ALM and ERM LC, and providing front end planning for the respective field crews. Interfaces with ALM and LC.

1.4.4 Archaeology Field Director (AFD) (PR, ASI, and Other)

Responsible for directing all archeological field work including determining archaeological potential and methodology. They are accountable for all archaeological field level decisions.

1.4.5 Archaeology Field Technicians (AFT) (PR, ASI, and Other)

Responsible for performing physical fieldwork, including screening, shoveling, backfilling test pits and walking ploughed fields. Each technician is responsible for examining soils for artifacts and soil profiles. Reports to AFD.

1.5 Field Safety Personnel (FSP)

It is everyone's responsibility to look out for the health and safety of the project team.

1.5.1 UPI Project Safety Manager (PSM)

Responsible for the overall safety program in the field including ensuring the work is progressing safely, developing safety plans as needed, continues to work on ERCMP, addresses any safety concerns in the field. Interfaces on a daily basis with TGH. Reports to the CM. Interfaces with all FSP.

1.5.2 ERM Field Safety Officer (FSO)

Responsible for ensuring IOL and ERM Health and Safety protocols are adhered to by all ERM subcontractors working on this project. The FSO is responsible to communicate any incidents or concerns to UPI PSM as well as UPI personnel to ensure everyone is aware of any health and safety incidents in the field. The FSO also covers the role of SSC Staff. Reports to the FL. Interfaces with FC and all FSP.

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1.5.3 Permit Issuer

Responsible for issuing the daily work permits to the crews. This role is being performed by TGH for Imperial Operations. Reports to Imperial Operations. Interfaces with CM, FC, and all FSP.

1.5.4 Contractor Supervisor in Database (CSID)

Responsible for ensuring Imperial HSE procedures are being implemented and providing safety oversight to the field crews. The CSID role is currently being performed by TGH. This role will transition to the ERM Field Leads after they go through the Imperial training and approval process. Interfaces with FC and all FSP.

1.6 Engagement Communities

1.6.1 Participating Communities

- Haudenosaunee Development Institute (HDI) / Haudenosaunee Confederacy Chiefs Council (HCCC)
- Huron-Wendat Nation (HWN)
- Mississaugas of the Credit First Nation (MCFN)
- Six Nations of the Grand River (SNFN)

1.6.2 Community Consultation Personnel (CCP)

Staff who have been delegated by their leadership to be the main contacts to represent the interests of their nation as Imperial undertakes the procedural aspects of the duty to consult as delegated to Imperial by the Ministry of Energy Northern Development and Mines. Staff also co-ordinate the field monitoring program for their community.

1.6.3 Monitors / Field Liaison Representatives

The activities of this role include:

To participate in and observe field work

To ensure community perspectives and priorities are considered in conducting assessments

Provides field communication to community offices

1.6.4 Lead Monitors / Field Liaison Representatives (LM/FLR)

Lead Monitor/Field Liaison Representative to be appointed by each community to liaise directly with UPI Field Coordinator (UPI FC)

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1.7 Imperial Consultation and Engagement Personnel

1.7.1 Imperial Community Relations Officer (CRO)

Manages consultation and engagement activities related to the Waterdown-Finch project with designated engagement communities by building and maintaining mutually beneficial relationships based on Imperial's principles and guidelines.

Supports the procedural aspects of the duty to consult with the engagement communities by coordinating comments and feedback regarding project information and programs, and ensuring a timely response from Imperial as the project proponent

Supports regulatory and permitting processes by facilitating community/project engagement ensuring that Imperial understands and responds to project impacts on traditional rights

Manages community engagements and acts as a facilitator and advisor for project's multi-disciplinary project team

In Relation to Archaeology Program

Responds to and advises on issues and concerns that cannot be resolved in the field and collaborates with communities and project team on resolutions

Performs regular field visits to build relationships with lead field monitors and to understand field dynamics to facilitate collaboration and issue resolution

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3.2 Work Execution Related 2
4.0 Communication Protocol For The Archaeology Program 2
4.1 Daily Logistics Communications 2
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1.0 ISSUES RESOLUTION

1.1 Archaeology

Issues and concerns related to archaeology are to be addressed in the field as much as possible between the Archaeology Field Directors (AFDs) and the Lead Monitors/FLRs (LM/FLR) with facilitation by the Field Coordinator (FC).

If an issue or concern cannot be resolved in the field, the LM/FLR are to document the issue/concern and raise this with the Community Consultation Personnel (CCP). In turn they will share this issue/concern with the Imperial Community Relations Officer (CRO). In parallel, the AFD will document the issue/concern and provide this to the FC who will communicate this to the CRO. In such cases, field work will continue within the Ministry of Tourism, Culture, and Sport (MTCS) Standards and Guidelines (S&G) and the Field Directors' professional opinion.

1.2 Field Management Issues

Issues and concerns related to logistics and site management are to be brought forward by the Lead Monitors/FLRs (LM/FLR) to the Field Coordinator (FC). The FC will bring this issue to the Construction Manager (CM) and the Archaeology Logistics Manager (ALM).

If there is an inadequate or no response to the issue/concern, the LM/FLR are to document the issue/concern and raise this with the Community Consultation Personnel (CCP). In turn they will share this issue/concern with the Imperial Community Relations Officer (CRO). In parallel, the FC will document the issue/concern and will communicate this to the CRO.

2.0 RESPECTFUL WORKPLACE

Respectful workplace concerns are to be directed to the FC. The FC will work with the CM to address.

3.0 STOP WORK ORDERS

3.1 Safety Related

Imperial, UPI, ERM, and TGH have the responsibility and authority to stop all site work if dictated by Imperial HSE procedures.

Unsafe behaviors are to be reported immediately to the nearest Field Safety Personnel (FSP) and to be escalated immediately to the UPI Project Safety Manager (PSM) to determine an appropriate path forward. Work may continue if appropriate and in alignment with the site safety policies as determined by the PSM.

Everyone on site is covered by the Emergency Response and Care Management Plan (ERCMP).

3.2 Work Execution Related

UPI and Imperial have the authority to stop all site work if related to work execution.

The subcontracting entities are to consult with the FC before stopping work for a reason other than safety.

4.0 COMMUNICATION PROTOCOL FOR THE ARCHAEOLOGY PROGRAM

This communication protocol applies to the archaeology program and does not extend to other lines of discussion such as agreements.

The lines of communication are to be clearly established for the archaeology program. This protocol aims to reinforce our commitment to a mutually respectful and collaborative relationship, effective and timely communication and conflict management.

4.1 Daily Logistics Communications

Archaeology Logistics Manager (ALM) and Logistics Coordinator (LC) will develop the daily plan and submit to the CM and FC for review/approval. After approval, the FC then forward to Archaeology Teams, LM/FLR, and CCP.

4.2 Communication to/from Community Consultation Personnel

All communications to the Community Consultation Personnel (CCP) are to be performed by the CRO.

Any communication from the Communities not related to the Daily Logistics and received by someone other than the CRO is to be responded to with the statement “Your communication has been received and has been forwarded to the CRO for response.” The CRO is to be copied on the response.

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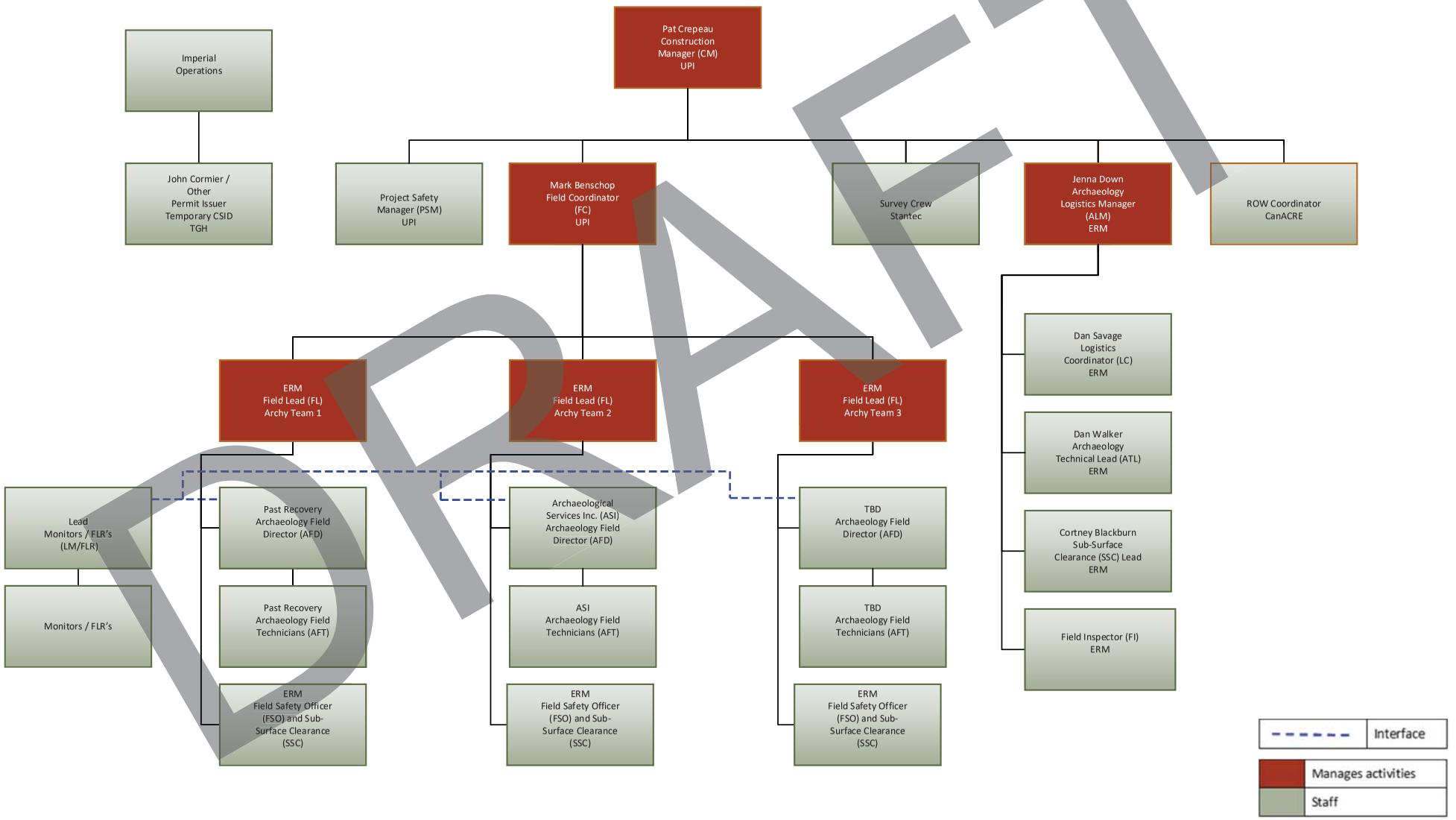
ROC3491d Attachment - Organization Chart (4 pages)

Imperial Oil
Waterdown to Finch Project
Organizational Chart

Overall Field Team



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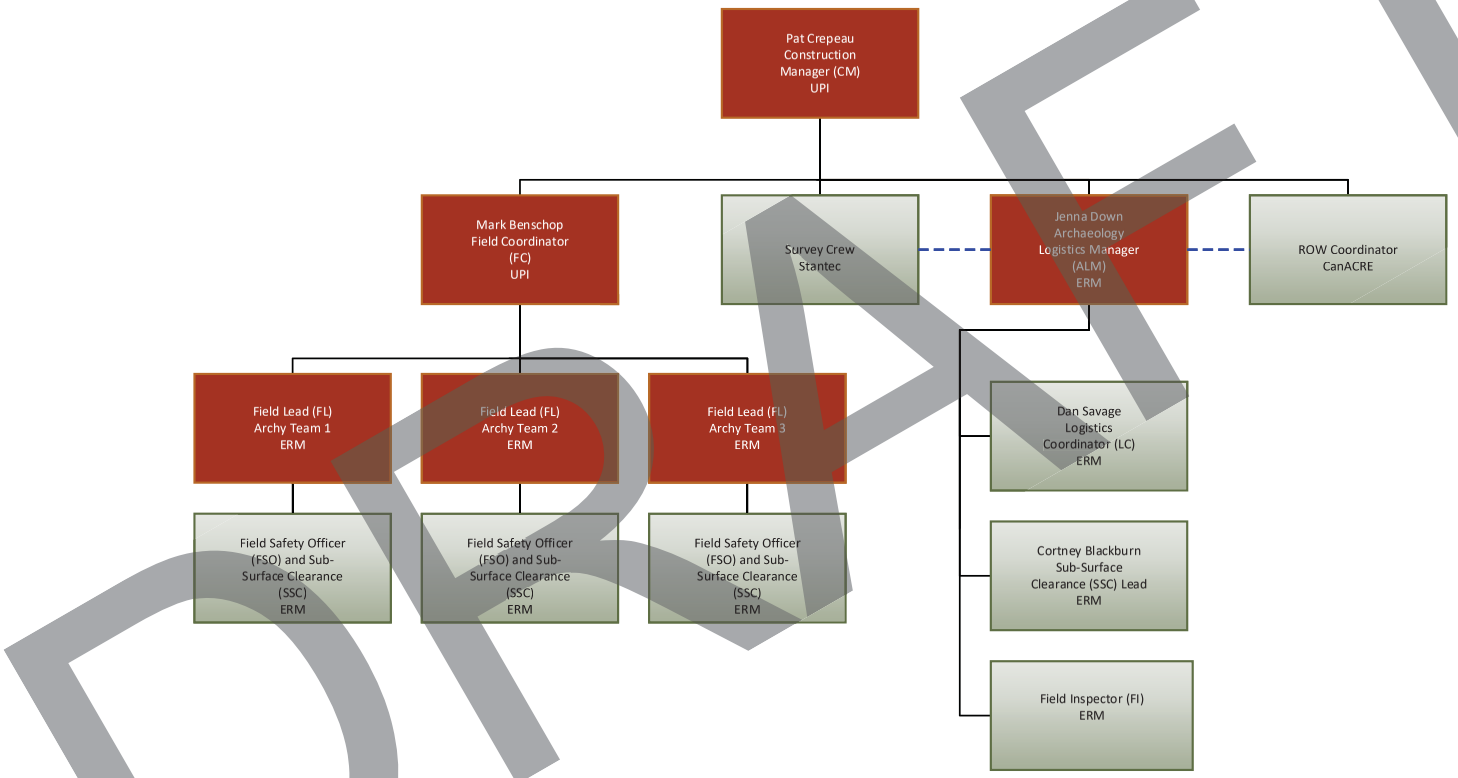
Imperial Oil
Waterdown to Finch Project
Organizational Chart

Field Logistics Team



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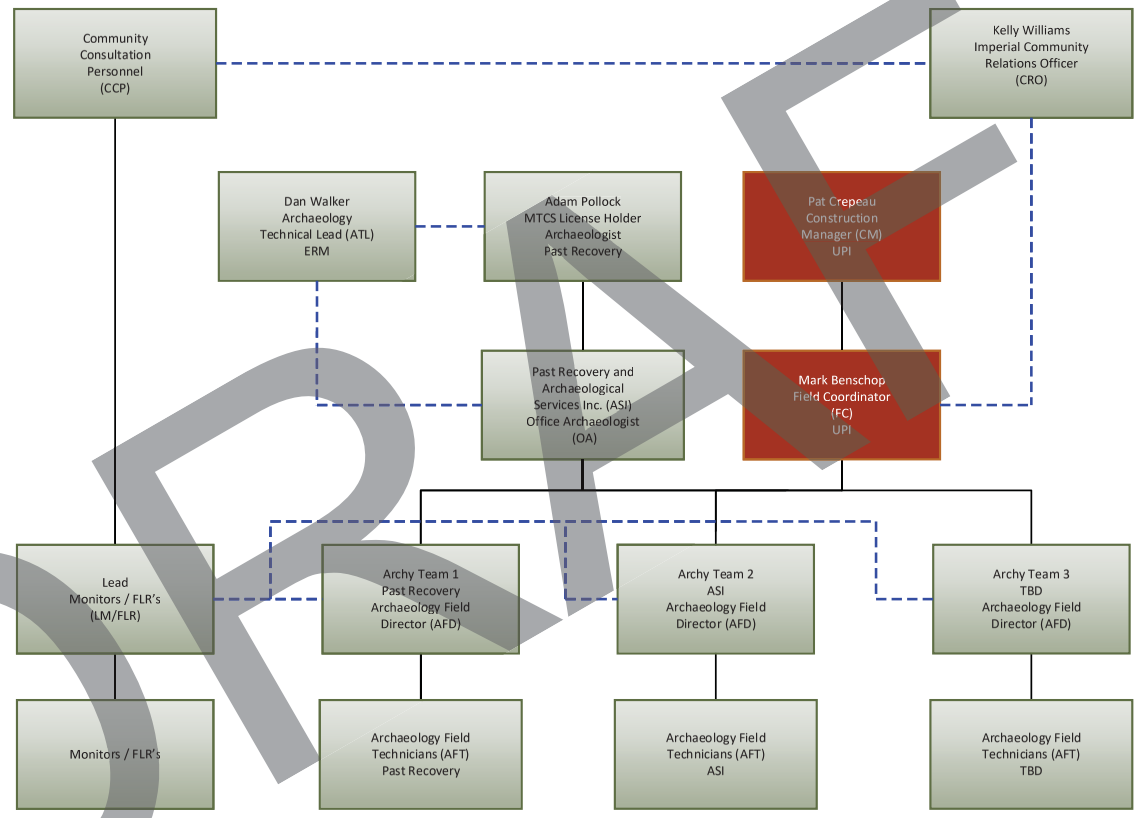
Interface

Manages activities

Staff

Imperial Oil
Waterdown to Finch Project
Organizational Chart

Archaeological Team



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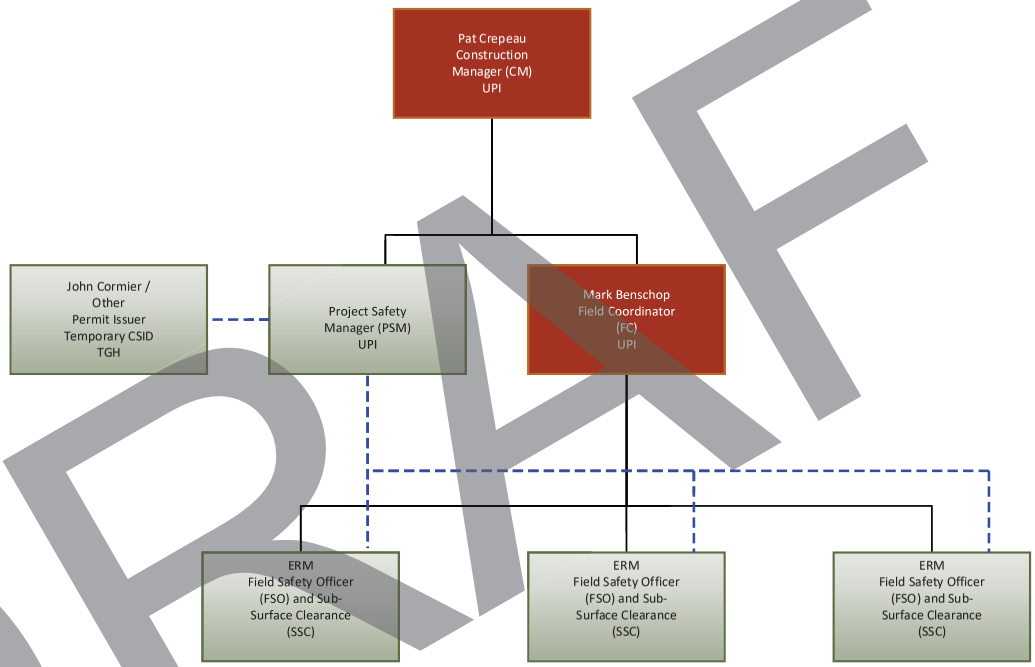
Field Safety Team



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Interface

Manages activities

Staff

ROC3493 (2 pages)

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: September 8, 2019 8:21 PM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Murillo, Breanna K /C
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9

Email #2

From: Williams, Kelly /C
Sent: Sunday, September 8, 2019 10:19 PM
To: 'Mark LaForme' <Mark.LaForme@mncfn.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Peter Epler <Peter.Epler@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Benschop, Mark <Mark.Benschop@hii-upi.com>; Crepeau, Patrick <Patrick.Crepeau@hii-upi.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9

Hi Mark,

The documents were presented in draft form for MCFN's and the other engagement community's comments and input. Thank you for taking the time to carefully consider the documents and provide feedback. Imperial will provide a response to your concerns. From this perspective, we are hopeful that these items can be discussed and clarified while the fieldwork resumes. Your positive comments are much appreciated.

I will be in the field tomorrow, and will be available by cell phone (519-328-8681) if you wish to discuss. Thanks for taking the time to send this out tonight. -kelly

Email #1

From: Mark LaForme [mailto:Mark.LaForme@mncfn.ca]
Sent: Sunday, September 8, 2019 8:29 PM
To: Williams, Kelly /C <kelly.williams@esso.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Peter Epler <Peter.Epler@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Benschop, Mark <Mark.Benschop@hii-upi.com>; Crepeau, Patrick <Patrick.Crepeau@hii-upi.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9

Hello Kelly,

I appreciate your email with the attached organizational chart and roles and responsibilities. While I know your email did not indicate that Imperial Oil would welcome our comments, and given that it was our understanding at DOCA that we would be given the opportunity to review and provide input into the documents prior to their implementation, I am compelled to share with you some of our thoughts on the documents anyway, in order to protect the Rights and interests of the MCFN. Although I find it unfortunate that they will probably be implemented without our input, I am hopeful that is not the case and our thoughts and comments will be given due consideration.

We all know this has been a lengthy and difficult process and I want to ensure you that our comments are offered in the spirit of collaboration and good will in an effort to help this project move forward with positive

energy, professionalism, efficiency and smoothness…..with all involved. Please accept our comments below with that in mind.

1. Clearly there will be a third archaeological crew added to this project. The current number of field staff is supposed to be 40 individuals, this will undoubtedly increase that number and thereby require an increase in FLR numbers. Beyond this, subsequent to the addition of ASI in the spring, it was our understanding the MCFN would be properly consulted by Imperial Oil prior to such a decision being made again in the future.
2. While the role of Lead FLRs and FLRs are included in the organizational chart, DOCA rather than Imperial Oil will determine their field interactions. Megan, Peter, and Joelle are under "Community Consultation Personnel". While it may just be semantics, they are the "Project Management Team" and are the key decision makers with regard to the archaeological interests of MCFN on all projects, including this one.
3. Lead FLRs are on the same level as the field directors, but not the ERM "field leads". It is the intention of DOCA that the Lead FLRs are on par with the ERM "field leads".
4. With regard to issue resolution, this draft states that "field work will continue". Work stoppage in certain situations must occur in order to properly protect any potential impacts to the Rights and interests of the MCFN. Continuation of field work should not be an arbitrary decision.
5. While Lead FLRs may now go directly to Mark Benschop of UPI to discuss concerns related specifically to logistics and site management, DOCA rather than Imperial Oil will instruct our employees as to when they are required to, or may report field concerns related to any matter to the DOCA office.
6. Safety is still overseen by multiple parties (excluding DOCA), but the UPI project safety manager is ultimately responsible for safety-related decisions. This presents the potential for much confusion. (We will be sharing our DOCA FLR Health and Safety Policy with you when we meet).
7. The Lead FLRs and FLRs role to work cooperatively in decision-making about the fieldwork has been overlooked in the roles and responsibilities, but I'm sure this was simply an oversight and one that we can easily correct.
8. The DOCA Field Archaeologist is absent from the proposed structure, however his wealth of experience is immensely valuable in helping resolve problems in the field rather than seeing them elevated.

In summary, our concerns fall into three categories, all of which will be impacted by this protocol.

1. Technical aspects of the archaeology (e.g. poor methodology), resulting in potential negative impacts to the Rights and interests of the MCFN
2. Impacts to the quality of archaeology (e.g. wet conditions), again resulting in potential negative impacts to the Rights and interests of the MCFN
3. Health and safety of ALL on-site personnel

As I said above, I offer our comments in the spirit of collaboration and good will. I trust they are received in that same spirit and that they are given proper and due consideration.

Thank you.

As ever,
Mark

Mark LaForme | Director | MCFN-DOCA | 4065 Hwy. 6 | Hagersville ON. | NOA1H0 | 905-768-4260 | http://mncfn.ca/doca

ROC3590a

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: November 20, 2019 12:38 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9
Attachments: Issues Resolution and Communications_090419 rev2 track changes.pdf; Roles and Responsibilities 090519 rev3 track changes.pdf; Visio-Archy Field Program 092319.pdf

From: Williams, Kelly /C
Sent: Monday, September 23, 2019 4:19 PM
To: 'Mark LaForme' <Mark.LaForme@mncfn.ca>; 'Megan DeVries' <Megan.DeVries@mncfn.ca>
Cc: 'Peter Epler' <Peter.Epler@mncfn.ca>; 'Joelle Williams' <Joelle.Williams@mncfn.ca>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; 'Benschop, Mark' <Mark.Benschop@hii-upi.com>; 'Crepeau, Patrick' <Patrick.Crepeau@hii-upi.com>
Subject: RE: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9

Good afternoon Mark,

Imperial has reviewed MCFN's comments on the stage 2 field program documents for the Waterdown-Finch Project. I have attached the documents reflecting the changes for MCFN's consideration. Imperial is looking forward to discussing this item and the other agenda topics on Wednesday. Let me know if you have any questions. Miigwetch! -kelly

---

From: Williams, Kelly /C
Sent: Sunday, September 8, 2019 10:19 PM
To: 'Mark LaForme' <Mark.LaForme@mncfn.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Peter Epler <Peter.Epler@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Benschop, Mark <Mark.Benschop@hii-upi.com>; Crepeau, Patrick <Patrick.Crepeau@hii-upi.com>
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To: Williams, Kelly /C <kelly.williams@esso.ca>; Megan DeVries <Megan.DeVries@mncfn.ca>
Cc: Peter Epler <Peter.Epler@mncfn.ca>; Joelle Williams <Joelle.Williams@mncfn.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Benschop, Mark

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Responsible for executing the daily archeology logistics plan that has been approved by UPI CM. Reports to the UPI CM. Interfaces with LM/FLR, CRO, PSM, ALM, ATL, and MTCS License Holder.

1.3.3 ERM Archaeology Logistics Manager (ALM)

Responsible for managing the logistics for the field teams. Responsible for developing the logistics plans, 2-week look-ahead, base plan, reporting progress completion, and any contingencies. Interfaces daily with Stantec and CanACRE on these plans. Reports to the CM. Interfaces with FC, Field Leads, Stantec Survey Crew, CanACRE ROW Coordinator.

1.3.4 ERM Field Lead (FL)

Responsible for overseeing the progress at field level and ensuring field logistics are implemented. Reviews parcel limits with the SSC personnel to ensure the assessment does not encroach outside the defined parcel. Ensuring all field personnel are signed in at the beginning of the day, accounted for during timed breaks/lunch and signed out at the end of the day. Taking daily notes and ensuring information is relayed to the UPI FC and ERM office. Will be CSIDs after going through the Imperial training and approval process. Reports to FC. Interfaces with PSM, Permit Issuer, and ALM.

1.3.5 ERM Field Inspector (FI)

Responsible for completing pre-inspection on parcels prior to archaeology assessment. Inspection duties include identifying: parking capacity and location, vegetation concerns, SSC staking/flagging presence, survey staking, and adequate ploughing methodology. Reports to the ALM. Interfaces with the LC.

1.3.6 ERM Sub-Surface Clearance (SSC) Lead

Responsible for managing the public and private utility locates, overseeing of the SSC field personnel and following up with any sub-surface clearance

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related incidents, near misses or observations. Reports to the ALM. Interfaces with SSC Staff.

1.3.7 ERM Sub-Surface Clearance (SSC) Staff

Responsible for ensuring all public and private locates are completed prior to any intrusive work taking place in the field. This includes completing a visual check of the site to confirm all buried sub surface utilities are painted or staked in the field to identify all sub-surface utilities.

Any questions on site with regards to any signs of a utility will need to be addressed by the SSC Field Lead. They are ultimately accountable for all sub-surface clearances related matters. The SSC Staff also covers the role of FSO. Reports to FL. Interfaces with SSC Lead.

1.3.8 ERM Logistics Coordinator (LC)

Responsible to provide office support to the ALM in managing the logistics for the field teams including 2 week look ahead. Will work with the Field Inspector to ensure site access, parking locations, etc. meet the needs of the field crews. Reports to the ALM. Interfaces with Stantec Survey Crew and CanACRE ROW Coordinator.

1.3.9 CanACRE ROW Coordinator

Responsible for coordinating access for all of the archaeology work. Reports to the CM. Interfaces with ALM, LC.

1.3.10 Stantec Survey Crew

Responsible for staking the areas for archaeological assessment. Reports to the UPI CM. Interfaces with ALM, LC.

1.4 Archaeology Personnel

1.4.1 MTCS License Holder, Professional Archaeologist (Past Recovery)

The license holder for the project with the Ministry of Tourism, Culture, and Sports (MTCS) is responsible for:

Filing the report with the Ministry containing the full details of work done under the license and such other information as the Minister may require.

To ensure the work follows the “Standards and Guidelines for Consultant Archaeologists” issued by the MTCS.

1.4.2 ERM Archaeology Technical Lead (ATL)

Responsible for the archaeological technical aspect of the project including the deliverables of the archaeological field program such as communication of findings to UPI/Imperial, report deadlines and reviews. Have awareness

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of the project footprint and any adjustments from engineering. Reports to the ALM. Interfaces with FC, MTCS License Holder, OA's.

1.4.3 Office Archaeologist (OA) (PR, ASI, and Other)

Responsible for compiling archaeological reports for the MTCS license holder review, obtaining data regularly from the AFD, compiling data from the field to provide accurate progress data for the ERM ALM and ERM LC, and providing front end planning for the respective field crews. Interfaces with ALM and LC.

1.4.4 Archaeology Field Director (AFD) (PR, ASI, and Other)

Responsible for directing all archeological field work including determining archaeological potential and methodology. They are accountable for all archaeological field level decisions.

1.4.5 Archaeology Field Technicians (AFT) (PR, ASI, and Other)

Responsible for performing physical fieldwork, including screening, shoveling, backfilling test pits and walking ploughed fields. Each technician is responsible for examining soils for artifacts and soil profiles. Reports to AFD.

1.5 Field Safety Personnel (FSP)

It is everyone's responsibility to look out for the health and safety of the project team.

1.5.1 UPI Project Safety Manager (PSM)

Responsible for the overall safety program in the field including ensuring the work is progressing safely, developing safety plans as needed, continues to work on ERCMP, addresses any safety concerns in the field. Interfaces on a daily basis with TGH. Reports to the CM. Interfaces with all FSP.

1.5.2 ERM Field Safety Officer (FSO)

Responsible for ensuring IOL and ERM Health and Safety protocols are adhered to by all ERM subcontractors working on this project. The FSO is responsible to communicate any incidents or concerns to UPI PSM as well as UPI personnel to ensure everyone is aware of any health and safety incidents in the field. The FSO also covers the role of SSC Staff. Reports to the FL. Interfaces with FC and all FSP.

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1.5.3 Permit Issuer

Responsible for issuing the daily work permits to the crews. This role is being performed by TGH for Imperial Operations. Reports to Imperial Operations. Interfaces with CM, FC, and all FSP.

1.5.4 Contractor Supervisor in Database (CSID)

Responsible for ensuring Imperial HSE procedures are being implemented and providing safety oversight to the field crews. The CSID role is currently being performed by TGH. This role will transition to the ERM Field Leads after they go through the Imperial training and approval process. Interfaces with FC and all FSP.

1.6 Engagement Communities

1.6.1 Participating Communities

- Haudenosaunee Development Institute (HDI) / Haudenosaunee Confederacy Chiefs Council (HCCC)
- Huron-Wendat Nation (HWN)
- Mississaugas of the Credit First Nation (MCFN)
- Six Nations of the Grand River (SNFN)

1.6.2 Community Consultation ~~Personnel~~ Management (CCM~~P~~)

Staff who have been delegated by their leadership to be the main contacts and key decision makers to represent the archaeological interests of their nation as Imperial undertakes the procedural aspects of the duty to consult as delegated to Imperial by the Ministry of Energy Northern Development and Mines. Staff also co-ordinate the field monitoring program for their community. For some communities, this management team also includes an archaeologist or similar with valuable experience and knowledge that can help contribute to resolution of issues in the field.

1.6.3 Monitors / Field Liaison Representatives

The activities of this role include:

To participate in and observe field work

To ensure community perspectives and priorities are considered in conducting assessments, as well as input into the field decision-making

Provides field communication to community offices

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1.6.4 Lead Monitors / Field Liaison Representatives (LM/FLR)

Lead Monitor/Field Liaison Representative to be appointed by each community to liaise directly with UPI Field Coordinator (UPI FC); activities of this role include the above activities identified in Section 1.6.3

1.7 Imperial Consultation and Engagement Personnel

1.7.1 Imperial Community Relations Officer (CRO)

Manages consultation and engagement activities related to the Waterdown-Finch project with designated engagement communities by building and maintaining mutually beneficial relationships based on Imperial's principles and guidelines.

Supports the procedural aspects of the duty to consult with the engagement communities by coordinating comments and feedback regarding project information and programs, and ensuring a timely response from Imperial as the project proponent

Supports regulatory and permitting processes by facilitating community/project engagement ensuring that Imperial understands and responds to project impacts on traditional rights

Manages community engagements and acts as a facilitator and advisor for project's multi-disciplinary project team

In Relation to Archaeology Program

Responds to and advises on issues and concerns that cannot be resolved in the field and collaborates with communities and project team on resolutions

Performs regular field visits to build relationships with lead field monitors and to understand field dynamics to facilitate collaboration and issue resolution

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1.0 ISSUES RESOLUTION

1.1 Archaeology

Issues and concerns related to archaeology are to be addressed in the field as much as possible between the Archaeology Field Directors (AFDs) and the Lead Monitors/FLRs (LM/FLR) with facilitation by the Field Coordinator (FC).

If an issue or concern cannot be resolved in the field, Imperial suggests that the LM/FLR ~~are to~~ document the issue/concern and raise this with the Community Consultation ~~Personnel~~ Management (CCMP~~)~~). In turn, Imperial suggests that they ~~will~~ share this issue/concern with the Imperial Community Relations Officer (CRO). In parallel, the AFD will document the issue/concern and provide this to the FC who will communicate this to the CRO. In such cases, field work will continue within the Ministry of Tourism, Culture, and Sport (MTCS) Standards and Guidelines (S&G) and the Field Directors' professional opinion. The CRO will work to expedite resolution of the issue to help ensure that the continuation of field work while issue resolution is ongoing is appropriate.

1.2 Field Management Issues

Issues and concerns related to logistics and site management are to be brought forward by the Lead Monitors/FLRs (LM/FLR) to the Field Coordinator (FC). The FC will bring this issue to the Construction Manager (CM) and the Archaeology Logistics Manager (ALM).

If there is an inadequate or no response to the issue/concern, the LM/FLR are to document the issue/concern and raise this with the Community Consultation Personnel (CCP). In turn they will share this issue/concern with the Imperial

Community Relations Officer (CRO). In parallel, the FC will document the issue/concern and will communicate this to the CRO.

2.0 RESPECTFUL WORKPLACE

Respectful workplace concerns are to be directed to the FC. The FC will work with the CM to address.

3.0 STOP WORK ORDERS

3.1 Safety Related

Imperial, UPI, ERM, and TGH have the responsibility and authority to stop all site work if dictated by Imperial HSE procedures.

Unsafe behaviors are to be reported immediately to the nearest Field Safety Personnel (FSP) and to be escalated immediately to the UPI Project Safety Manager (PSM) to determine an appropriate path forward. Work may continue if appropriate and in alignment with the site safety policies as determined by the PSM.

Everyone on site is covered by the Emergency Response and Care Management Plan (ERCMP).

3.2 Work Execution Related

UPI and Imperial have the authority to stop all site work if related to work execution.

The subcontracting entities are to consult with the FC before stopping work for a reason other than safety.

4.0 COMMUNICATION PROTOCOL FOR THE ARCHAEOLOGY PROGRAM

This communication protocol applies to the archaeology program and does not extend to other lines of discussion such as agreements.

The lines of communication are to be clearly established for the archaeology program. This protocol aims to reinforce our commitment to a mutually respectful and collaborative relationship, effective and timely communication and conflict management.

4.1 Daily Logistics Communications

Archaeology Logistics Manager (ALM) and Logistics Coordinator (LC) will develop the daily plan and submit to the CM and FC for review/approval. After approval, the FC then forward to Archaeology Teams, LM/FLR, and CCP.

4.2 Communication to/from Community Consultation Personnel

All communications to the Community Consultation Personnel (CCP) are to be performed by the CRO.

Any communication from the Communities not related to the Daily Logistics and received by someone other than the CRO is to be responded to with the statement

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“Your communication has been received and has been forwarded to the CRO for response.” The CRO is to be copied on the response.

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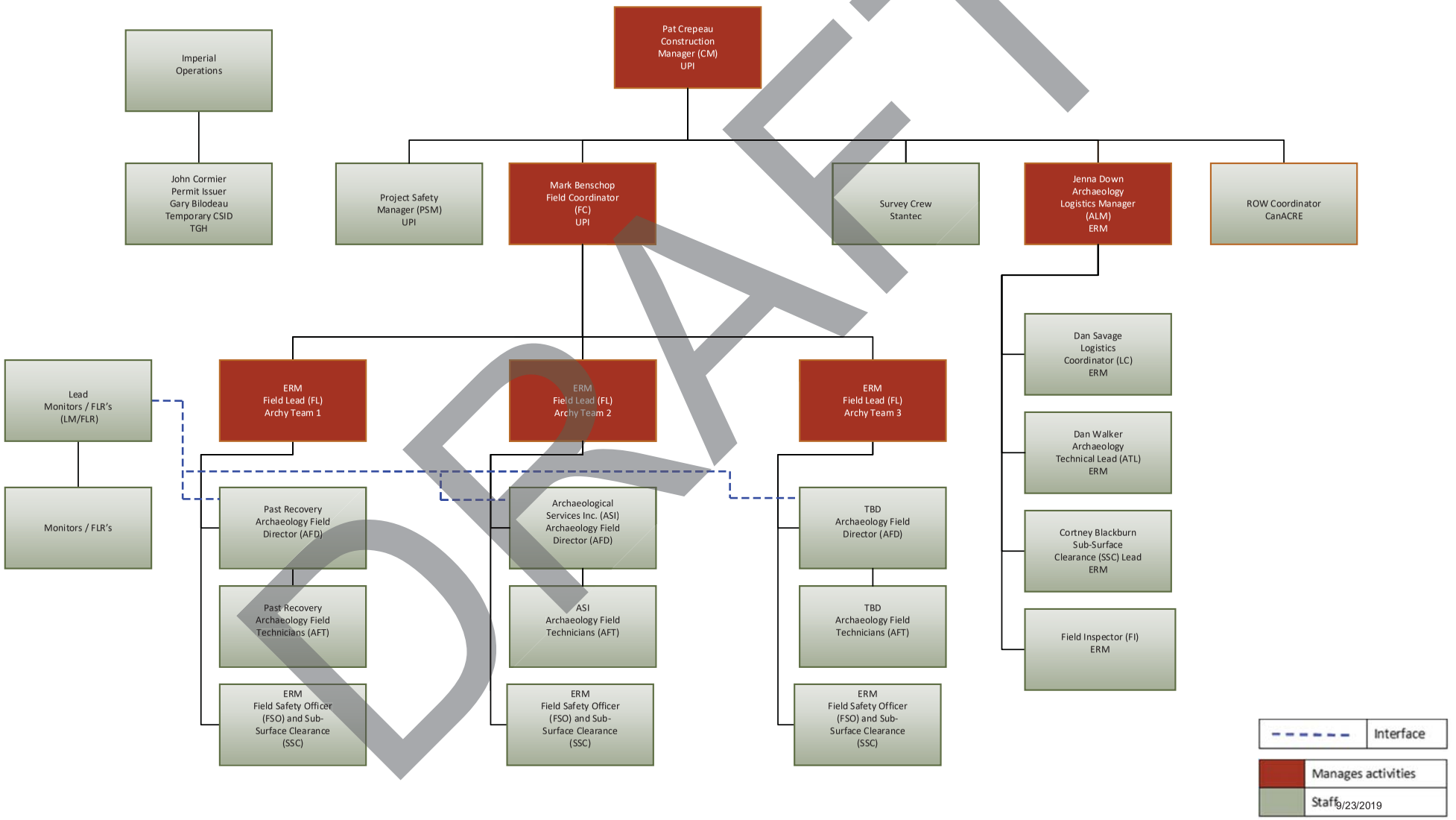
ROC3590d Attachment - Revised Organization Chart (4 pages)

Imperial Oil
Waterdown to Finch Project
Organizational Chart

Overall Field Team



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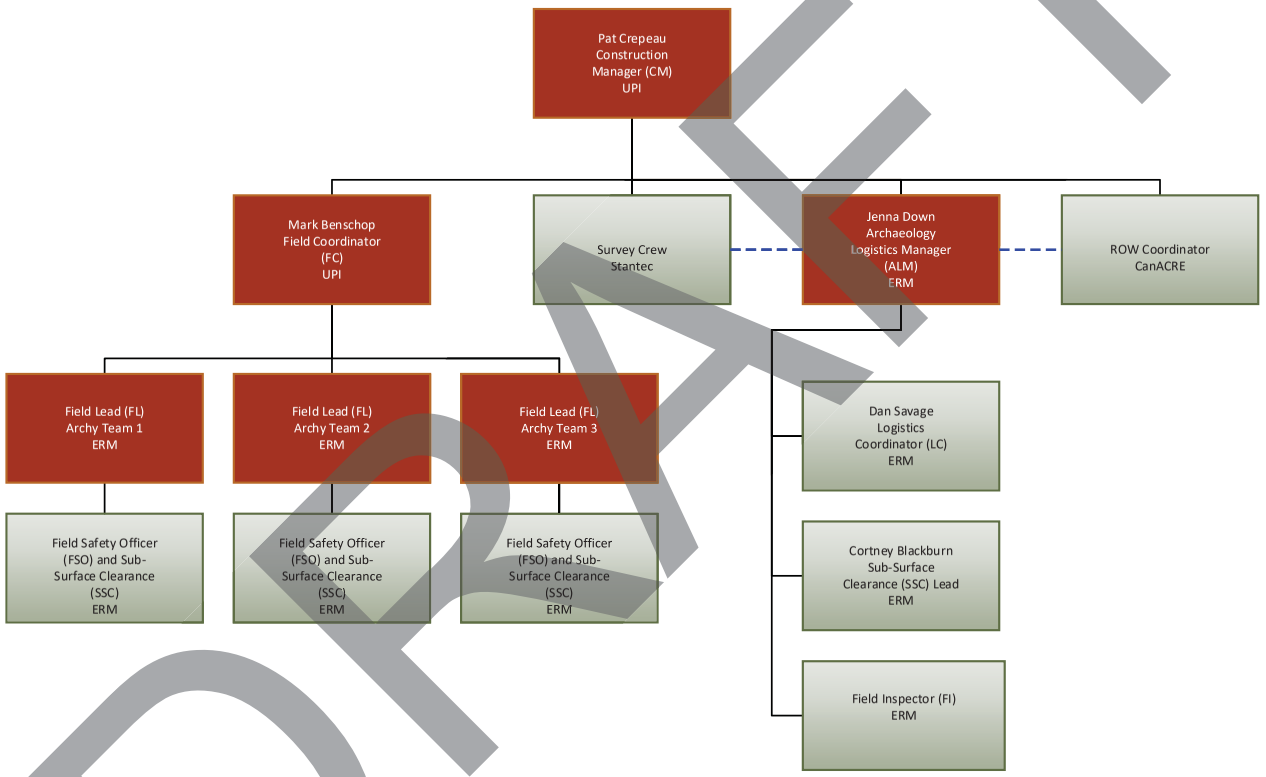
9/23/2019

Imperial Oil
Waterdown to Finch Project
Organizational Chart

Field Logistics Team



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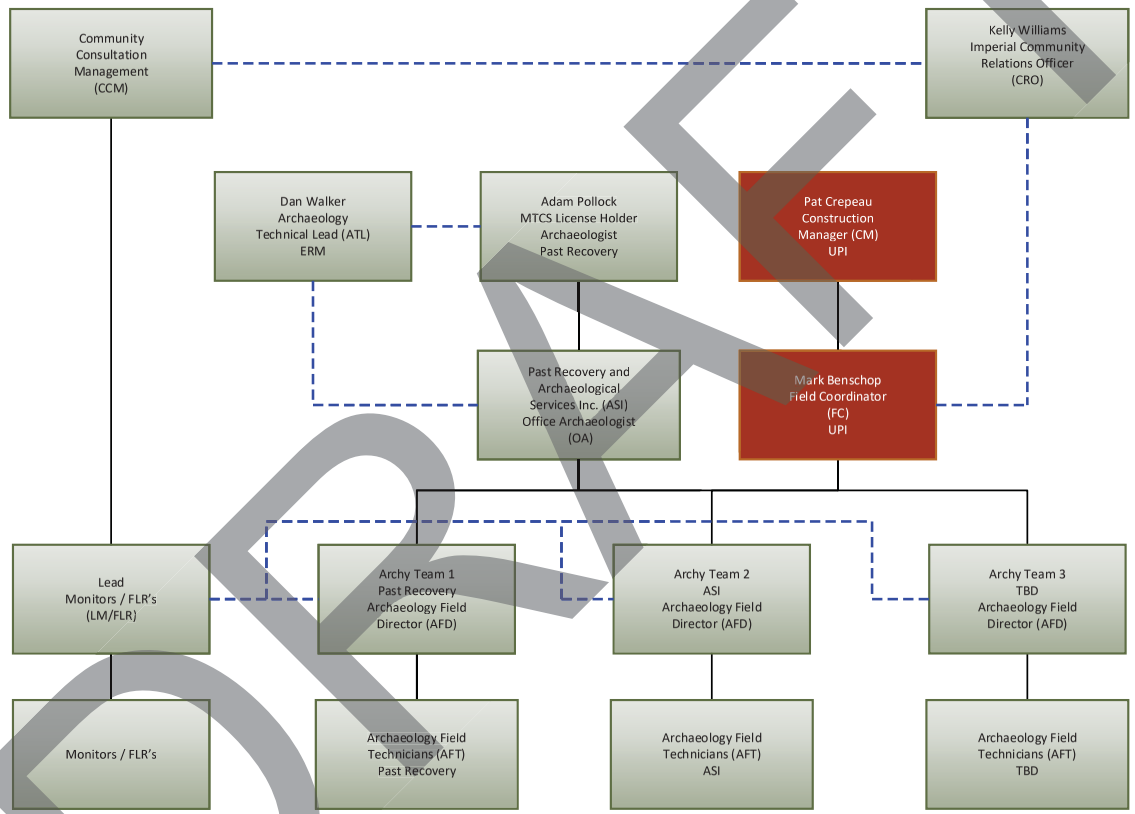
Interface

Manages activities

Staff

Imperial Oil
Waterdown to Finch Project
Organizational Chart

Archaeological Team



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Interface

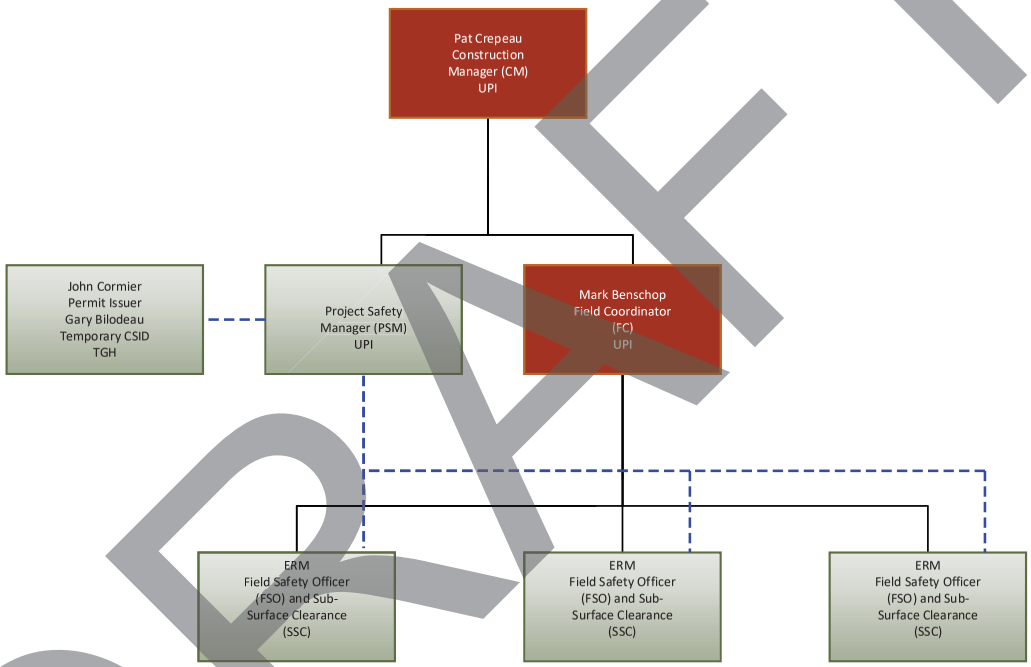
Manages activities

Staff

9/23/2019

Imperial Oil
Waterdown to Finch Project
Organizational Chart

Field Safety Team



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Interface

Manages activities

Staff

9/23/2019

ROC3541 (3 pages)

Imperial Waterdown to Finch Pipeline Replacement Project September 25, 2019 9:30am	
Participants	
MCFN • Megan Devries, Archaeological Operations Supervisor • Mark Laforme, DOCA Director • Joelle Williams, Field Coordinator • Matthew Laforme, Lead FLR • Peter Epler, Field Archaeologist • Leonard Rickard, CEO Business Corporation (phone)	*Imperial* • Kelly Williams, Community Relations Officer • Ryan Klue, Project Manager of Execution • Pat Crepeau, Construction Manager, UPI • Mark Benschop, Environmental Coordinator, UPI • Breanna Murillo, Socioeconomic Advisor (phone) • Jake Huzel, Indigenous Business Development Advisor (phone) • Brenda Kennett, Past Recovery (phone)

Objective(s)	
• To discuss Project updates	
Topic	
Project business opportunities	• WAT-FIN Project Team would like to understand MCFN's business/workforce capacity and interests relevant to the Project • MCFN currently exploring earthworks, security and provision of aggregates opportunities involving established providers • MCFN would like an advanced list of WAT-FIN's opportunities for the Project • MCFN interested in prequalified vendors for the Project that MCFN could work with • All Project opportunities will flow through subcontractor, UPI, but Imperial is working to develop further details and will provide as soon as available • Prequalified vendors flow through UPI as well, but WAT-FIN Project Team available to discuss potential opportunities • Jake and Leonard will continue business dialogue
Stage 2 archaeology program logistics	• MCFN's suggested edits have been made to Stage 2 restart documents • WAT-FIN Project Team will identify ERM field lead for each field crew in regular coordination emails • Outstanding concern re: issue resolution – that in some circumstances there should be opportunity for field work to stop ○ WAT-FIN Project Team has been addressing such circumstances on a case by case basis • MCFN does not require that an FLR accompany the field inspector provided that when they arrive on site, the decision to proceed is up to the field director • Weekly planner summaries are difficult to access; MCFN would like to receive a running log of progress, i.e., mapping showing progress and finds and next steps accessible at a glance

	○ *WAT-FIN Project Team to investigate option to provide regular mapping of progress and get back to MCFN* • Stage 2 progress at 35% currently (and mostly in the east)
Integrity digs	• *MCFN, Wood and Imperial to meet next week; Imperial to provide dates for meeting with Wood*
Stage 2 reporting	• MCFN would want to see the final draft report • MCFN would like to see smaller reports outlining: Sites recommended for Stage 3; Parcel itself with find spots, as MCFN may recommend some sites for Stage 3 even if the MTCS would not agree • Smaller reports could be organized regionally • *WAT-FIN Project Team to investigate option for SharePoint or similar that MCFN and WAT-FIN Project Team can access and edit for Stage 2 report sharing* • MCFN may require some capacity support to review the Stage 2 reporting; MCFN will get back to WAT-FIN Project Team about this, as appropriate • *WAT-FIN Project Team to look into reporting on boreholes and get back to MCFN* • WAT-FIN Project Team considering MCFN's comments on Parsons Site boreholes memo and will respond • Find spots to date total close to 70, but not all are sites
Stage 3 planning	• A new archaeological firm is being considered to complete the Stage 3 work; Timmins Martell is one of the firms preferred by MCFN • MCFN could not support Stage 3 right now, given FLR capacity and will need appropriate notice for spring program, so appropriate hiring can occur
Emergency response	• *MCFN to provide preference on if, in what situations and how MCFN wants to be notified in the event of an incident or emergency* • Any potential effects on water are of key importance to MCFN • MCFN would like to be immediately notified in the event of an incident • MCFN would supply an environmental FLR to monitor spill response • MCFN would want to receive updates on what occurred and response steps and status • MCFN would also want to be involved in an emergency archaeology-Stage 2, and remediation
Construction engagement	• MCFN expects to have construction monitors for archaeological sites with an avoidance and protection strategy for potential ground disturbance activities and for activities with potential negative impacts to environmentally sensitive areas • On other projects, MCFN had one FLR embedded with the project environmental inspector, which worked well and was efficient in terms of coordination
Agreement status	• MCFN previously requested an agreement with Imperial. Imperial would like to receive MCFN's proposed agreement for consideration.
HDD monitoring training request	• MCFN previously requested that Imperial fund HDD monitoring training. Imperial would like more information from MCFN regarding this request for consideration.

	• MCFN has identified a company they would like to deliver this training (Hutchison Environmental Services) • MCFN provided a hard copy of the proposal; $9269 was initial proposed budget • FLRs and DOCA staff would participate in the training • MCFN would be open to have others participate in the training too • *MCFN to provide updated quote for HDD training* • *Imperial to consider HDD training proposal and respond to MCFN*
Project concerns	• No additional concerns identified
Other	• Waterdown terminal project – Imperial will advise Stantec that we will continue with subcontractor arrangement for archaeology FLRs for now; MCFN would want the agreement to support the MCFN archaeology Standards & Guidelines • MCFN FLR guidelines, archaeology Standards & Guidelines and health and safety policies provided in hard copy to Imperial

Follow-ups

Item #	Follow-up	Responsible	Status
1	*WAT-FIN Project Team to investigate option to provide regular mapping of progress and get back to MCFN*	Kelly	In progress
2	*MCFN, Wood and Imperial to meet next week; Imperial to provide dates for meeting with Wood*	NA	Complete
3	*WAT-FIN Project Team to investigate option for SharePoint or similar that MCFN and WAT-FIN Project Team can access and edit for Stage 2 report sharing*	Kelly	In progress
4	*WAT-FIN Project Team to look into reporting on boreholes and get back to MCFN*	Kelly	In progress
5	*MCFN to provide preference on if, in what situations and how MCFN wants to be notified in the event of an incident or emergency*	Megan	In progress
6	*MCFN to provide updated quote for HDD training*	NA	Complete
7	*Imperial to consider HDD training proposal and respond to MCFN*	Ryan	In progress

ROC3597a

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: November 15, 2019 12:08 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch Project-Imperial-Documents
Attachments: E.1_WFP_UPI_Chance_Find_Procedure .pdf; E.1_WFP_UPI_Spill_Plan.pdf; SPPL Emergency Response Plan_DRAFT.PDF

From: Williams, Kelly /C
Sent: Friday, November 15, 2019 2:05 PM
To: Mark LaForme <Mark.LaForme@mncfn.ca>; 'Megan DeVries' <Megan.DeVries@mncfn.ca>
Cc: Marlene Morton <Marlene.Morton@mncfn.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Subject: Waterdown-Finch Project-Imperial-Documents

Good afternoon Mark and Megan,

I hope you and your staff are safe after the early winter weather blast this past week. As discussed in our previous meetings, Imperial committed to providing these documents for review and comment. If MCFN has designated a contact for notification, please forward to me at your convenience and I will ensure that that it is added to the documents. The documents attached:

Emergency Response Plan for the Sarnia Products Pipeline: Notification and engagement of MCFN in the event of an incident has been added to these documents. Note that the document is made up of two components.

- *Specific Contingency Plan (pages 1-7):* This section outlines the initial steps taken in the event of an incident. Please see page 3 (highlighted in blue) for the proposed addition. This document is the trigger for notification of MCFN for an incident and would also initiate the process for a liaison from MCFN to participate in the Incident Command System.
- *Asset-Specific Tactical Plans (pages 8-84)*: This section outlines specific tactical plans for sensitive areas along the pipeline. For each tactical plan, the required notifications are listed. Please see page 12 (highlighted in blue) for the proposed addition. Note that we have shown an update to only one tactical plan for initial review, but this addition will be made for each tactical plan (there are 22 in this document) once contact information is confirmed.

Chance Find Procedure and Spill Prevention and Response Plan: These documents are in initial draft format and will continue to be developed in collaboration with the construction contractor once selected, as they are intended to be implemented in the field during construction work.

If you have any questions, please contact me.

Best regards,

kelly

Kelly Williams
Community Relations Officer Waterdown-Finch Project
Imperial

ROC3597b Attachment - Chance Find Protocol (9 pages)
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Waterdown to Finch Project

Chance Find Heritage Resources Contingency Plan

EM Document No.:
ONT-WF-SPPL-UP-RP-0009

UPI Doc Number:
24255-598-3RT-10016

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ACRONYMS AND ABBREVIATIONS

Chance Find Plan	Chance Find Heritage Resources Contingency Plan
EI	Environmental Inspector
EPC	Engineering, Procurement and Construction Management
IO	Infrastructure Ontario
MTCS	Ministry of Tourism, Culture and Sports
ROM	Royal Ontario Museum
TRCA	Toronto Region and Conservation Authority

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1. OVERVIEW AND PURPOSE

As part of the Waterdown to Finch Environmental Protection Plan (EPP), the Chance Find Heritage Resources Contingency Plan ("Chance Find Plan") has been developed to provide Imperial Oil Limited (Imperial) and its Contractor(s) with the appropriate response guidelines and procedures in the event unidentified heritage resources and sites are encountered during construction activities. Imperial has completed a number of environmental studies, including a comprehensive Stage 2 Archaeological Assessment of the Workspace, in preparation for development of this Project. Nevertheless, even thorough investigations do not fully remove the potential for impacts on as-yet unknown Heritage sites, including pre- and post-contact archaeological sites and paleontological sites. Therefore, though the potential for unknown Heritage Resources is low, the Chance Find Plan aims to avoid and/or reduce Project risks that may result due to such chance finds, and to ensure protection of heritage resources and sites. Examples of cultural heritage sites and paleontological resources include but are not limited to the following:

- Prehistoric artifacts such as projectile points/arrowheads, pottery sherds, shell, stone tools, cooked or modified animal bone, or chipped stone.
- Historic artifacts such as pottery sherds, window or bottle glass, nails, bricks and mortar, or cut stone.
- A cluster or concentration of prehistoric or historic artifacts.
- Features such as soil stains, trash pits, fire pits/hearths, post molds, earthen mounds.
- Architectural remains such as stone, brick, or concrete foundations, piers, concrete slabs, or other structural remains.
- Body fossils (fossilized remains of ancient organisms) and trace fossils (impressions made on a substrate by ancient organisms).

The Chance Find Plan will be implemented in the case of unanticipated discoveries of archaeological or paleontological sites during construction and will be implemented in conjunction with regulators and Indigenous communities. This document includes the regulatory framework and general guidelines for the protection of these resources and sites.

2. REGULATORY CRITERIA

Under the *Ontario Heritage Act* RSO 1990 c O.18 *Environmental Assessment Act*, or through the Class Environmental Assessment process lands require archaeological assessment in compliance with the 2011 Standards and Guidelines for Consultant Archaeologists (Ontario Ministry of Tourism, Culture and Sports ["MTCS"] 2011). Consideration must be made for the interests of other stakeholder groups and regulatory agencies where relevant, including the Toronto and Region Conservation Authority (TRCA), Infrastructure Ontario (IO), municipal by-laws, and Indigenous communities in accordance with the 2011 Draft Technical Bulletin: Engaging Aboriginal Communities in Archaeology (Ontario MTCS 2011).

3. ROLES AND RESPONSIBILITIES

3.1 Proponent

Imperial is the owner of the Project and aside from external regulatory reporting, will delegate the implementation of this Chance Find Procedure to the Engineering, Procurement and Construction Contractor ("EPC").

Imperial is responsible for all regulatory and external reporting associated with the Chance Find Procedure and in accordance with permits and authorizations.

3.2 Engineering, Procurement and Construction Contractor

The EPC is responsible for the development, design and supervision of the implementation of the Chance Find Plan. EPC responsibilities include:

- Leading the development of the Chance Find Plan.
- Selecting and designing Chance Find measures that are best suited for the site-specific environmental and heritage conditions.
- Reviewing and approving on-site design modifications.
- Developing and implementing contingency plans for addressing Chance Find controls that are not effectively or successfully implemented.
- Oversee inspection of Chance Find controls.

3.3 Contractor

The EPC will assign a construction Contractor who is responsible for following the Chance Find Plan activities and mitigation measures including:

- Installing the Chance Find Plan measures according to specifications.
- Inspecting, monitoring, and maintaining Chance Find Plan measures.
- Following chance find notifications and reporting requirements in accordance with specifications, permits, and authorizations.

3.4 Environmental Inspector

The EPC will assign an Environmental Inspector (“EI”) who will be responsible for inspection and monitoring of the activities and mitigation measures outlined in the Chance Find Plan.

- Understanding the Chance Find Plan and its implementation.
- Monitoring compliance with the provisions of the Chance Find Plan.
- Implementing contingency measures if the prescribed Chance Find Plans are not effective.
- Documenting all site inspections and corrective actions.

3.5 Project Archaeologist

Imperial will designate a Project Archaeologist that will oversee and provide technical direction for archaeology of the Project, including the implementation of the Chance Find Plan.

3.6 Employees and On-site Personnel

In addition to the EI and Project Archaeologist, employees and on-site personnel/contractors will receive site orientation and training, developed by the Project Archaeologist in consultation with the EPC, regarding compliance with the Project’s Chance Find Plan. All new employees will receive site orientation and training during their induction and the training will focus on the procedure in place for responding to newly identified sites and how to report these sites or observed site impacts. Training records will be kept and maintained. Copies of the Project’s Chance Find Plan will be kept on-site for reference and on file by Imperial.

4. PLANNING AND PREVENTION

Heritage assessments undertaken prior to construction are designed to identify and mitigate effects to Heritage Resources. However, even the most thorough investigations may not identify all Heritage Resources that may be impacted during project development. Therefore, though the potential for unknown Heritage Resources is low, the Chance Find Plan is designed to mitigate impacts to any additional cultural heritage sites that were not identified prior to construction. For purposes of the Chance Find Plan, cultural heritage sites include human remains interred by any means, as well as archaeological materials such as prehistoric or historic objects (artifacts), features, structural remains, and landscape modifications. Paleontological resources are the fossilized remains of plants and animals.

The following procedures will be implemented for the Project if unanticipated discoveries of archaeological or paleontological materials occur in the course of construction activities (Figure 4-1; Table 4-1).

Table 4-1: Chance Find Procedures

Activity / Feature	Procedure
Chance finds	If personnel suspect they have discovered archaeological materials, or paleontological materials they are to: 1. Stop any earthwork or construction activities, including movement of equipment, within 50 m of the find. 2. Leave the material in place and mark the area around the site using a 50 m buffer zone. 3. Contractor report the discovery to the EI immediately. 4. EI will contact the Project Archaeologist immediately. 5. The Project Archaeologist or designate will assess the find and If the find is determined to have cultural heritage value or interest (CHVI): a. the EI and Project Archaeologist will inform the MTCS and local Indigenous communities of the find. b. the Project Archaeologist and EI, in consultation with the MTCS and local Indigenous communities, will develop a mitigation plan in accordance with the 2011 Standards and Guidelines. c. Once the mitigation plan has been completed and approval is received from MTCS and indigenous communities work can continue. 6. If the find is determined not to have CHVI construction can continue.
Human remains	If human remains are found the Standards and Guidelines state that “The *Cemeteries Act*, R.S.O. 1990 c. C4 and the *Funeral, Burial, and Cremation Services Act* 2002, S.O. 2002, C.33 (when proclaimed in force) require anyone who uncovers a burial site containing human remains to cease fieldwork or construction activities and report the discovery to the appropriate authorities (police or coroner).” In a case where suspected human remains or unmarked burial are encountered the following steps will be taken:

Activity / Feature	Procedure
	1. Stop any earthwork or construction activities, including movement of equipment, within 50 m of the find. 2. Leave the material in place, mark and secure the area (50 m buffer zone) and assign personnel to monitor the area and prevent any unauthorized access. 3. Contractor report the discovery to the EI immediately. 4. EI will immediately contact the Project Archaeologist and the appropriate authorities (police). 5. Following confirmation that the remains are human: a. The police to manage the site if deemed criminal. b. The Project Archaeologist to manage the site if deemed non-criminal (e.g., unmarked grave of Euro-Canadian or Indigenous affiliation). 6. If deemed criminal, resume work in the area only upon completion of the site-specific mitigation plan and following clearances granted from the appropriate regulatory agencies (police). 7. If deemed non-criminal: a. the EI and Project Archaeologist will inform the MTCS and local Indigenous communities of the find. b. the Project Archaeologist and EI, in consultation with the MTCS and local Indigenous communities, will develop a mitigation plan. c. once the mitigation plan has been completed and approval is received from MTCS and indigenous communities work can continue. 8. If the site is deemed to be faunal (animal) remains, continue the assessment with no additional engagement from authorities.
Paleontological materials	In a case where suspected paleontological materials are encountered the following steps in addition to the steps above are to be taken: 1. Secure the area (50m buffer zone) and assign personnel to monitor the area and prevent unauthorized access. 2. The Project Archaeologist to report the discovery to the appropriate authorities (Royal Ontario Museum [“ROM”], Local Paleontological Society). 3. The Project Archaeologist or designate to prepare and implement a site-specific mitigation plan.

5. REFERENCES

Cemeteries Act, R.S.O. 1990 c. C4

Funeral, Burial, and Cremation Services Act, 2002. S.O. 2002, C.33

Ontario Ministry of Tourism and Culture, 2011. *Engaging Aboriginal Communities in Archaeology: A Draft Technical Bulletin for Consultant Archaeologists in Ontario.* Queen's Printer for Ontario: Toronto.

Ontario Ministry of Tourism and Culture, 2011. *Standards and Guidelines for Consultant Archaeologists*. Queen's Printer for Ontario: Toronto.

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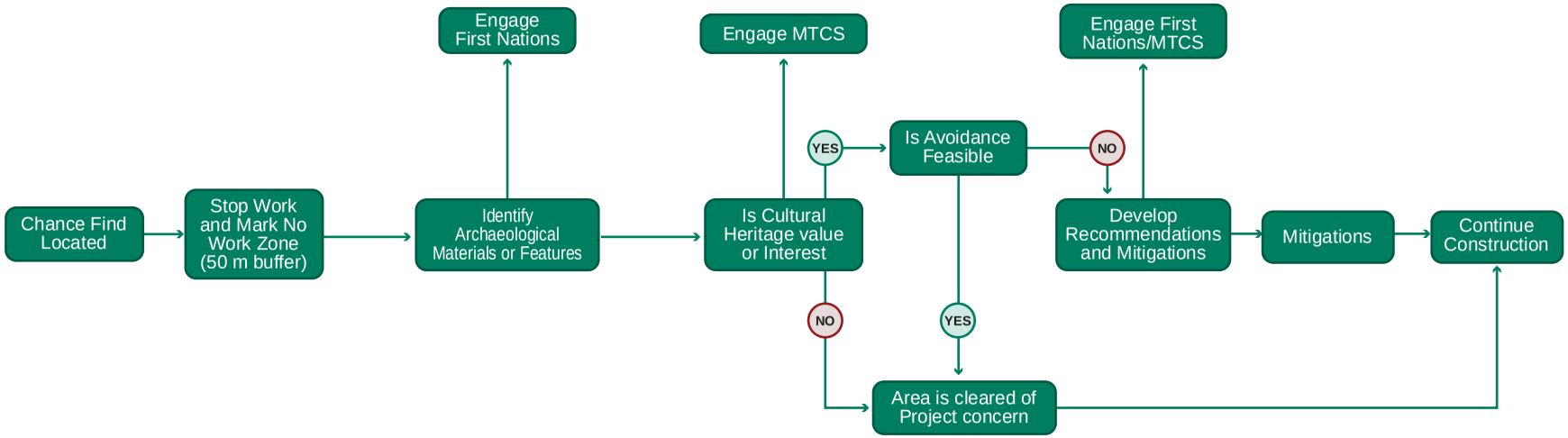

Figure 4-1: Chance Find Workflow

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ROC3597c Attachment - Spill Prevention and Response Plan (15 pages)

Waterdown to Finch Project

Spill Prevention and Response Plan

EM Document No.:
ONT-WF-SPPL-UP-RP-0006

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ACRONYMS AND ABBREVIATIONS

CEPA	*Canadian Environmental Protection Act*
EI	Environmental Inspector
EPA	Ontario *Environmental Protection Act*
EPP	Environmental Protection Plan
EPC	Engineering, Procurement and Construction Management Contractor
MECP	Ministry of Environment, Conservation and Parks
NFPA	National Fire Protection Association
HDB	Horizontal directional boring
HDD	Horizontal directional drilling
QP	Qualified Person
SAC	Spills Action Centre
SPPL	Sarnia products pipeline
UFC	Unified Facilities Criteria
UPI	Universal Pegasus International

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1. OVERVIEW AND PURPOSE

As part of the Waterdown to Finch Project Environmental Protection Plan ("EPP"), this Spill Prevention and Response Plan has been developed to provide best practices for the Contractor to implement during and construction activities. It provides guidance on spill prevention, contingency planning, and reporting practices for the timely and effective prevention and response to potential inadvertent, construction-related releases to land and surface water. This Spill Prevention and Response Plan delineates provisions for the inadvertent release of both non-hazardous and potentially hazardous material (e.g., certain lubricating oils, drilling wastes).

The guidelines included in this Spill Prevention and Response Plan will be followed to reduce the potential for a spill to land or surface water and thereby protect terrestrial, groundwater and surface water resources. Performance objectives for the management of potential substance release have been included in this Spill Prevention and Response Plan that consider the Project's risks and compliance obligations, including:

- Planning and prevention - preventing the inadvertent release of materials that may have a deleterious effect on the terrestrial and aquatic environments;
- Spill management - responding with appropriate measures in a timely manner to an inadvertent release; and
- Spill notification and reporting - providing timely notifications and reports to key project personnel and regulatory agents.

All employees, contractors and consultants will abide by all federal, provincial and local requirements for disposal and release reporting requirements for all products and waste materials that are potentially hazardous to human health and the environment.

Once in operation, the pipeline will be included in Imperial's current operational plans and procedures for the SPPL and is not within the scope of this plan. This includes Imperial's Emergency Response Plan that will be implemented in response to the unlikely event of a pipeline leak during operation.

2. REGULATORY CRITERIA

The interception and cleanup of spills must comply with provisions in the *Environmental Protection Act*, R.S.O. 1990 ("EPA"), specifically regulation 224/07 which outlines regulation for Spill Prevention and Contingency Plans and regulation 675/98 and 225/07 which outline the Classification and Exemption of Spills and Reporting of Discharges. Under Ontario Reg. 675/98, in the event of an inadvertent spill, the Spills Action Centre ("SAC") must be notified in a timely manner.

The Contaminated Materials and Management and Handling Plan will be implemented according to the requirements of the Ministry of Environment, Conservation and Parks ("MECP").

3. ROLES AND RESPONSIBILITIES

3.1 Proponent

Imperial Oil Limited is the owner of the Project and aside from external regulatory reporting, will delegate the implementation of this Spill Prevention and Response Plan to the Engineering, Procurement and Construction Contractor ("EPC").

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Imperial is responsible for all regulatory and external reporting associated with the Spill Prevention and Response plan and in accordance with permits and authorizations.

3.2 Engineering, Procurement and Construction Contractor

The EPC is responsible for the development, design and supervision of the implementation of the construction Spill Prevention and Response Plan, including:

- Leading the development of the Spill Prevention and Response Plan.
- Selecting and designing Spill Prevention and Response measures that are best suited for the site-specific environmental conditions.
- Reviewing and approving on-site design modifications.
- Developing and implementing contingency plans for addressing Spill Prevention and Response controls that are not effectively or successfully implemented.
- Overseeing inspection of Spill Prevention and Response controls.

3.3 Authorized Personnel

The Contractor will assign Authorized Personnel who will be designated to handle fuel, lubricants or other regulated substances. Authorized personnel will be familiar with the requirements of the Spill Prevention and Response Plan.

3.4 Contractor

The EPC will assign a construction Contractor who is responsible for following the Spill Prevention and Response Plan including:

- Installing the Spill Prevention and Response Plan measures according to specifications.
- Inspecting, monitoring, and maintaining Spill Prevention and Response Plan measures.
- Personnel shall notify the crew foreman or Environmental Inspector immediately of any spill of a petroleum product or hazardous liquid, regardless of volume.
- Following spill prevention, notifications and reporting to Imperial.

3.5 Environmental Inspector

The EPC will assign an Environmental Inspector (“EI”) who will be responsible for inspection and monitoring of the activities and mitigation measures outlined in the Spill Prevention and Response Plan including:

- Understanding the Spill Prevention and Response Plan and its implementation.
- Inspecting Spill Prevention and Response measures on a regular basis and after rainfall/snowmelt events.
- Monitoring compliance with the provisions of the Spill Prevention and Response Plan.
- Implementing contingency measures if the prescribed Spill Prevention and Response Plans are not effective.
- Confirm appropriate agency notifications are made (notification to be completed by Imperial), spill resources are allocated, and clean-up is accomplished in accordance with applicable agency requirements.
- Documenting all site inspections and corrective actions.

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3.6 Subcontractor(s)

If the Contractor or EI determines that a spill is beyond the scope of on-site equipment and personnel, the Contractor will assign an emergency response Subcontractor to contain and/or clean up the spill.

The Contractor or Subcontractor will retain a Qualified Person ("QP"), as defined in Ontario Regulation 153/04 (as amended) and licensed to practice in the Province of Ontario, to review, direct and manage all activities related to soil management (contaminated, non-contaminated, excess soil etc.) and soil importation activities during the construction activities of the Project.

The Subcontractor will assist the Contractor and EI to monitor containment procedures to ensure that the actions are consistent with the requirements of this Spill Prevention and Response Plan.

4. PLANNING AND PREVENTION

This section summarizes minimum standards for handling and storing regulated substances and cleaning up spills. Potential sources of construction-related spills include machinery and equipment failure, fuel handling, transfer accidents and storage tank leaks. The Contractor will be responsible for implementing, at a minimum, the following planning and prevention measures (Table 4-1).

Table 4-1: Spill Planning and Prevention Measures

Activity/ Feature	General Spill Prevention Measures
Training	1. Train Contractors and all involved on-site staff on the Spill Prevention and Response Plan, implementation, prevention, use of emergency kit and reporting for both hazardous materials and spill response. 2. Include specific instructions regarding applicable notifications and appropriate response actions to be taken in the event of a release in on-site staff training. 3. Contractor employees will be briefed on procedures to respond to a pipeline spill (e.g. damage to a third party adjacent in-service pipeline) during mandatory safety and environment training to be provided by the EPC.
Planning	4. Temporary workspaces to be assessed prior to use to identify suitable locations for long term vehicle parking, refueling stations, and areas for mechanical work and signage provided to illustrate where these activities are to take place. 5. Spill prevention equipment (spill kits, drip pans, etc.) to be strategically located at each site.
Spill kits and materials	6. Maintain spill kits to contain a sufficient quantity of absorbent and barrier materials to adequately contain and recover foreseeable spills. These kits may include, but are not limited to absorbent pads, straw bales, absorbent clay, sawdust, floor-drying agents, spill containment barriers, plastic sheeting, skimmer pumps, and holding tanks. This equipment will be located near fuel storage areas and other locations as necessary to be readily available. 7. Maintain, clearly label and have easily visible the appropriate release containment (spill kits) and recovery equipment and materials at all work sites. 8. Contractor to train all staff with the locations of the spill control equipment and materials and have readily accessible during construction activity. 9. Carry materials adequate to control foreseeable spills in all fueling vehicles, and where necessary, service vehicles. Such material may include but not be limited to absorbent pads, commercial absorbent material, plastic bags with ties, and shovels.

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Activity/ Feature	General Spill Prevention Measures
Transport, Storage and Handling of Fuels/ Hazardous Liquids	10. Only employ Authorized Personnel to transport, store, and handle fuels / hazardous liquids. 11. Travel of fuel trucks transporting fuel to on-site construction equipment occur only on access roads approved by the EI. 12. Maintain all equipment in proper running order to prevent leaking or spilling of potentially hazardous or toxic products. This includes hydraulic fluid, diesel, gasoline and other petroleum products. 13. Store all hazardous materials, chemicals, fuels and lubricating oils more than 30 m from any wetlands, streams and waterbodies. 14. Do not park equipment overnight (including but not limited to light plants, generators, pumps, and machinery) within 30 m of a wetland or waterbody unless secondary containment provisions have been implemented and approved by the EI in advance. 15. Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water (e.g., at a distance of greater than 30 m from top of bank). 16. Store fuel in contractor yards only or as approved by the EI. 17. Equip all fuel nozzles with functional automatic shut-offs 18. Maintain signage at and adjacent to fuel storage areas indicating “Fuel Storage Area – No smoking within 15 meters.” 19. Maintain fire extinguishers in suitable locations according to regulatory requirements and specifications. 20. Keep tools and materials on-site to stop leaks. Such equipment may include, but not be limited to, plugs of various sizes, 3M tank patches, a hammer, assorted sizes of metal screws with rubber washers, a screwdriver, and plastic tape. 21. Store fuels, lubricants, waste oil, and any other regulated substances in aboveground tanks only. 22. Conform to all applicable industry codes for storage tanks and containers (e.g., Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations under the *Canadian Environmental Protection Act* [“CEPA”]). 23. Utilize a suitable secondary containment structure at each fuel storage site. Line these structures with suitable plastic sheeting; provide a minimum containment volume equal to 150 percent of the volume of the largest storage vessel. 24. Do not have drains in the secondary containment areas. Precipitation may be drawn off as necessary. Discharge any accumulated water if no spillage has occurred in the secondary containment structure. Pump any accumulated waste into drum storage for disposal if spillage has occurred in the structure. 25. Make all efforts to dispense fuel during the daylight hours. 26. Station personnel at both ends of the hose during fueling unless both ends are visible and are readily accessible by one person.
Directional Drilling/ Boring	27. Implement Inadvertent Returns during HDD Plan that includes measures to stop work, contain the drilling fluid/mud and prevent its further migration into the watercourse, and notify all applicable authorities. Prioritize clean-up activities relative to the risk of potential harm and dispose of drilling mud in a manner that prevents re-entry into the watercourse. Do not implement clean-up measures that result in greater damage to the banks and watercourse than from leaving the drilling mud in place.

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Activity/ Feature	General Spill Prevention Measures
Watercourses/ Wetlands	28. Contractor to store hazardous materials, chemicals, fuel and lubricating oils, and perform refuelling, maintenance, and lubricating activities more than 30 m from wetlands, streams, and waterbodies (including drainage ditches), and water supply wells. 29. While the setback for refueling, storage, and maintenance near wetlands and waterbodies is compulsory 30 m it may be unavoidable in certain instances due to site specific conditions or unique construction requirements (e.g., continuously operating pumps or equipment on barges). If this activity occurs within wetlands or near streams for refueling of continuously operating pumps, use secondary containment for these unique requirements. 30. Line secondary containment structures with suitable plastic sheeting, provide a containment volume of at least 150 percent of the storage vessel, and allow for at least one foot of freeboard. 31. Provide adequate lighting for these locations and activities.
Inspection and Monitoring	32. EI to monitor the Contractor's compliance with the Spill Prevention and Response Plan. 33. Notify the appropriate Spill Coordinator if an accidental spill arises, regardless of the size. 34. Notify key project personnel and regulatory agencies, per the Spill Notification and Reporting Procedures described in Table 3.

5. SPILL MANAGEMENT

The following response and management procedures will be followed immediately upon learning of any fuel, oil, hazardous material, sediment release, drilling mud or other regulated substance spill, or upon learning of conditions that will lead to an imminent spill (Table 5-1). Spills are defined as the release of a pollutant into the natural environment, from or out of a structure, vehicle or other container that is abnormal in quality or quantity in light of all of the circumstances.

Table 5-1: Spill Response and Management Procedures

Activity/ Feature	General Response and Management Measures
Immediate Spill Response	1. When a spill has occurred, the Contractor will immediately: a. Assess the safety hazards of the situation and remove sources of ignition, if safe to do so. b. Identify the product, stop the source and physically contain the spill as soon as safe to do so. c. Engage emergency services if required. d. Notify Imperial Oil Limited and the EI of the incident. e. Mobilize on-site personnel, equipment, and materials for containment and/or cleanup commensurate with the extent of the spill. f. Engage and assist the Emergency Response Subcontractor as needed and monitor containment procedures to ensure that the actions are consistent with the requirements of this Spill Prevention and Response Plan. g. Coordinate with Imperial to determine the need to evacuate spill sites to safeguard human health; and h. Delineate the release and containment area to avoid further disturbance in the area. 2. EI will complete the Spill Report Form (Appendix A) 3. Imperial Oil Limited will notify the applicable stakeholders

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Activity/ Feature	General Response and Management Measures
Spill Response – Fuel Truck	In addition to the Immediate Spill Response above, the Contractor will: 4. Pump the tanker dry (into appropriate containers or another tanker). 5. Remove the tanker from the site. 6. Recover the spilled product. 7. Clean-up the contaminated area with absorbent materials. 8. Dispose of sorbent pads, heavily contaminated soil and vegetation at an approved facility.
Spill Response - Adjacent to or into a Waterbody	In addition to the Immediate Spill Response above, the Contractor will: 9. Deploy booms, skimmers, sorbents, etc., if feasible, to contain and recover the spilled material from the waterbody. 10. Clean-up the contaminated area, including downstream shorelines. 11. Dispose of contaminated soil and vegetation at an approved facility.
Pipeline spill	12. Notify Imperial's Emergency Pipeline Control at 1-800-372-9597 (24-hours/day) as well as the Imperial Environmental Lead in the event of a suspected Imperial pipeline spill (or from an adjacent pipeline). Imperial Operations to implement the Operational Emergency Response Plan.
Cleanup, storage and disposal of contaminated materials	13. Determine clean-up options and appropriate methods to recover and dispose of potentially contaminated soil or vegetation at an approved facility. 14. Recover the released materials from the defined containment area using equipment suitable to the nature and extent of the release. 15. Cleanup the release and contaminated areas. Consultation with a qualified remediation specialist and/or Company Representative may be required. 16. Store and cover excavated soils on site with plastic sheeting in a bermed area to prevent and contain runoff if temporary storage is necessary. 17. Dispose of contaminated materials, and contaminated soils and vegetation at an approved facility in accordance with applicable provincial and federal regulations. 18. Use only licensed carriers to transport contaminated material from the site to a disposal facility. 19. For the storage and disposal of contaminated materials refer to the Waste Management Plan.

6. SPILL NOTIFICATION AND REPORTING

The following notification and reporting procedures will be taken immediately upon learning of any fuel, oil, hazardous material, sediment release, drilling mud or other regulated substance spill (Table 6-1).

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Table 6-1: Spill Notification and Reporting Procedures

Activity / Features	General Notification and Reporting Procedures
Internal notification	1. Contractor to notify Imperial and EI immediately of any spill of a petroleum product or hazardous liquid, regardless of volume. 2. Imperial to notify applicable stakeholders as required.
Internal reporting	3. Contractor to ensure all cleanup activities required by a jurisdictional agency are satisfactorily met and provide documentation to Imperial demonstrating this compliance. a. EI to complete a Spill Report Form (refer to Appendix A) within 24-hours of the occurrence of a spill, regardless of the size of the spill. Include a record of the report in the Project files per Ontario Regulation 675/98: b. Imperial to keep this record for two years after the spill for all Class V, VII, VIII, IX and XI spills. c. Imperial to keep this record for five years after the spill for all Class X (non-reportable) spills. 4. Contractor to complete any required follow up written reports, associated laboratory analysis, and other documentation as requested by the EI on a site specific basis.
External notifications	5. Imperial to report spills and discharges, per the Ontario EPA, to the MECP through the SAC at 1-800-268-6060. 6. Imperial to notify the appropriate federal, provincial and local agencies, Indigenous communities as well as additional parties or agencies. 7. Imperial to report the spill to the municipality in which the spill occurred. 8. Imperial to notify the landowner of the property on which the spill occurred. 9. All spills, regardless of volume, that enter directly or indirectly into a sanitary or storm sewer or rural ditch must be reported to the City of Hamilton, City of Toronto, City of Burlington, City of Mississauga, the Region of Halton, Region of Peel, Town of Milton and the Town of Oakville. Phone numbers for all stakeholders are in Appendix B. Exemptions for municipal notifications will be reviewed on a case by case basis.

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7. REFERENCES

Government of Ontario. 1990 (updated 2019). Environmental Protection Act, R.S.O 1990, c. E. 19 Available online at https://www.ontario.ca/laws/statute/90e19. Accessed May 2019.

OEB (Ontario Energy Board). 2016. *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario*. 7th Edition, 2016.

MOE (Ministry of Environment). 2007.Guideline for Implementing Spill Prevention and Contingency Plans Regulatory Requirements (O.Reg.224/07). Available at https://archive.org/details/std01079161.ome/page/n7. Accessed May 2019.

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APPENDIX A SPILL REPORT FORM

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Spill Report Form

(The Contractor must complete this for any spill, regardless of size, and submit the form to the Imperial Representative within 24 hours of the occurrence)

Date of Spill: _____ Date of Spill Discovery: _____

Time of Spill: _____ Time of Spill Discovery: _____

Name and Title of Discoverer: _____

Type of material spilled and manufacturer's name: _____

Legal Description of spill location to the quarter section: _____

Directions from nearest community: _____

Estimated volume of spill: _____

Estimated duration of the release of the pollutant: _____

Weather conditions: _____

Topography and surface conditions of spill site: _____

Spill medium (pavement, sandy soil, water, etc.): _____

Proximity of spill to surface waters: _____

Did the spill reach a waterbody? _____ Yes _____ No

If so, was a sheen present? _____ Yes _____ No

Describe the causes and circumstances resulting in the spill: _____

Describe the extent of observed contamination, both horizontal and vertical (i.e., spill-stained soil in a 5-foot radius to a depth of 1 inch): _____

_____

Describe immediate spill control and/or cleanup methods used and implementation schedule:

_____

_____

Describe the method used to dispose of the pollutant and any part of the environment that was affected by the spill: _____

Current status of cleanup actions: _____

Any adverse effects observed as a result of the spill: _____

Name and Company for the following:

Construction Superintendent: _____

Spill Coordinator: _____

Imperial Representative: _____

Person Who Reported the Spill: _____

Environmental Inspector: _____

Form completed by: _____ Date: _____

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APPENDIX B SPILL REPORTING CONTACTS

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Table B-1: Spill Reporting Contacts

Agency	Notification Period	24-hour Reporting Hotline	Regulation/Code	Comments
Provincial Contacts				
Ministry of Environment, Conservation and Parks via Spills Action Centre	Immediately	1-800-268-6060	Ontario Reg 2675/98	Will include Technical Standards and Safety Authority notification, if applicable.
Municipal Contacts				
City of Hamilton	Contractor to confirm	1-905-540-5188	Ontario Reg 2675/98	Spill Reporting Hotline
City of Toronto	Contractor to confirm	1-416-325-3000 311 (within Toronto)	Ontario Reg 2675/98	Spill Reporting Hotline
City of Burlington	Contractor to confirm	1-905-333-6166	Ontario Reg 2675/98	City of Burlington Roads, Parks and Forestry Department
City of Mississauga	Contractor to confirm	1-905-615-3000	Ontario Reg 2675/98	24 hour dispatch
Region of Peel	Contractor to confirm	1-905-791-7800	Ontario Reg 2675/98	Spill Response Hotline
Town of Milton	Contractor to confirm	1-905-878-7252 311 (within Milton)	Ontario Reg 2675/98	Town of Milton
Town of Oakville	Contractor to confirm	1-905-845-6601 311 (within Oakville)	Ontario Reg 2675/98	Town of Oakville
Indigenous Community Contacts				
Haudenosaunee Development Institute	TBD	TBD		Haudenosaunee Confederacy Chiefs Council
Huron-Wendat Nation	TBD	TBD		
Mississaugas of the Credit First Nation	TBD	TBD		
Six Nations of the Grand River	TBD	TBD		
Conservation Authority Contacts				
Toronto Region Conservation Authority	Contractor to confirm	1-416-661-6600		Toronto Region Conservation Authority
Hamilton Region Conservation Authority	Contractor to confirm	1-905-825-6000		Hamilton Region Conservation Authority
Halton Region Conservation Authority	Contractor to confirm	1-905-825-6000		Spill Response Hotline
Credit Valley Conservation Authority	Contractor to confirm	1-905-670-1615		Credit Valley Conservation Authority

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TITLE **Imperial Facility - Emergency Response Plan**
SECTION 08: Specific Contingency Plans
SUBJECT 15: Spill - Low Vapour Pressure 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 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.

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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.

Incident : _____ Facility: _____ Date : _____

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	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 all 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	Isolate the leaking pipeline section by ensuring the appropriate main valves are closed, if safe to do so.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	6	Assess the situation using the "Disciplined Approach": a) Evaluate the extent of the spill b) Determine the need to stop all/or other operations including shutting down other pipelines in the same corridor, if applicable. c) 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) d) Determine the need to call the Facility ER Team (ERP-09-04: Appendices: Facility Specific «Contacts Lists») e) Evaluate the need for Municipal ER support. If required, call local Police, Fire Services and Public Works (ERP-09-04) f) Notify First Nations so they are able to stand up representatives to attend to protection of critical sites and provide guidance to responders. (ERP-09-04 to be updated with regional First Nations contact information) g) Decide on the action plan. Get Support, if required and Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»).		
	7	Evaluate effectiveness of the safety perimeter, using air-monitoring equipment (Lower Explosion Limit), if applicable		
	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.		
	11	Call the local Police for traffic and safety perimeter control and the Fire Dept. Services for vapour dispersion or suppression and fire prevention, if spilled product migrated off the right of way or if otherwise warranted and not already done. See ERP-09-04		

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Continue following steps if the spill has migrated to public or third party premises. If not, go directly to step #17.

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	12	Establish a Unified Command structure with Public Authorities as per ERP-01-05, ERP-02-01 and ERP-04-02, if not already done.		
	13	Notify IOL Public Affairs (ERP-06-02: Emergency Response Contacts and Resources: Other Imperial Emergency Response Resources).		
	14	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; a) Did spill/leak go into any city sewer systems (sanitary, rainwater or sanitary)? b) 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») c) Are vapours present in nearby businesses/residences? d) Did the spilled material reach the water table? e) Any drinking water wells within 1 km of the spill source? f) What response resources do you have? g) Decide on the action plan.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	15	Did hydrocarbon go into a city sewer system? If yes: a) Contact City Public Works (ERP-09-04 or dial "0") b) Obtain sewer plot plan from the City Public Works c) Determine safety perimeters using monitoring device (i.e. like LEL meters) in co-operation with City Public Works d) Have installed appropriate number of chimneys or explosion-proof fans at street manholes to discharge the vapours e) Verify if gasoline vapours are present in nearby residences and if so, request Police /Fire Dept to evacuate those residents f) Identify / Ensure no sources of ignition g) Block sewers downstream. Recover product with a vacuum truck and have sewer systems flushed starting upstream. If distillate, use the same steps even though there are much lesser risks associated with this type of product.		
	16	Did petroleum product reach the water table? If yes: a) Provide alternate source of drinking water to affected residents b) Involve a company Environmental Specialist c) Determine the perimeter by taking water samples and getting them analyzed using the services of a professional firm d) Transfer the follow-up activities with help from the Imperial (CFO) Business Management involved.		
	17	Is hydrocarbon present in a ditch, stream or river? If yes: a) Remove all sources of ignition b) If crude, check for H_2S c) Disperse the vapours with water fog d) Ask the Fire Dept Services to spray a blanket of hydrocarbon compatible foam, if hydrocarbon trapped and is felt appropriate e) Recover product with a vacuum truck. If distillate: a) Remove all sources of ignition b) Contain using a dam, boom or other means c) Recover with a vacuum truck.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	18	Identify any potential downwind exposures (i.e. flammable vapour cloud, liquid product movement, etc.). If necessary, utilize Police for any further remaining evacuations.		
	19	Refer to ERP-04-03: General Response Procedures: Response Principles and Key Tactics of this Plan for general product behaviors and response tactics.		
	20	Advise Fire Services to spray foam (hydrocarbon compatible foam such as AFFF or AFFF/ATC for alcohol type concentrate). If needed.		
	21	Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»), if not already done.		
	22	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 Other useful numbers can be found in ERP-06-03, or, in ERP-09-04 for Local Authorities: Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____		
	23	Determine the potential for additional releases, if safe to do so.		
	24	Use absorbents and/or other methods to contain the spilled product at the spill area(s).		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	25	Re-evaluate safety perimeter, using air monitoring equipment (such as LEL) and permit vehicle traffic only if appropriate.		
	26	Recover visible product in affected area(s), using appropriate transfer equipment or vacuum truck and use established safe operating procedures.		
	27	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.		
	28	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).		
	29	Decontaminate equipment and clothing, if applicable.		
	30	Resume normal operations when situation is re-assessed and only when all potential risks have been eliminated.		
	31	Conduct debriefing with Responders and on-site personnel prior to demobilization and document, per PDM 1-15-04.		

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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

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147	Oakville	140 - 147
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WATER CROSSINGS	MILE POST
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Page for drawing of Key Map 140 named: SPPL 12

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Barlow Creek Tributary of Fairchild Creek
	Watercourse Crossing #	Map 133-Mile 121.5
	Location	Troy (Town of Flamborough)

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	
First Nations:	Haudenosaunee Development Institute Contact: TBD Phone: TBD	Huron Wendat Nation Contact: TBD Phone: TBD
	Mississaugas of the Credit First Nation Contact: TBD Phone: TBD	Six Nations of the Grand River Contact: TBD Phone: TBD

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1. Watercourse characteristics at pipeline crossing:

Estimated velocity	**Dimensions**		**Other**
Fall	Avg. Width: Avg. Depth: Max. Width:	3m .02m 6m	Bed Material: Limestone / silt

2. Potential environmental sensitivities:

Agricultural area.

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek A tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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 Dsipersants Skimmers	Foam Booms Skimmers Dispersants	Booms Foams Dispersants
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing #: Map 133-Mile 122.7 Location: Town of Flamborough

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	

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1. Watercourse characteristics at pipeline crossing:

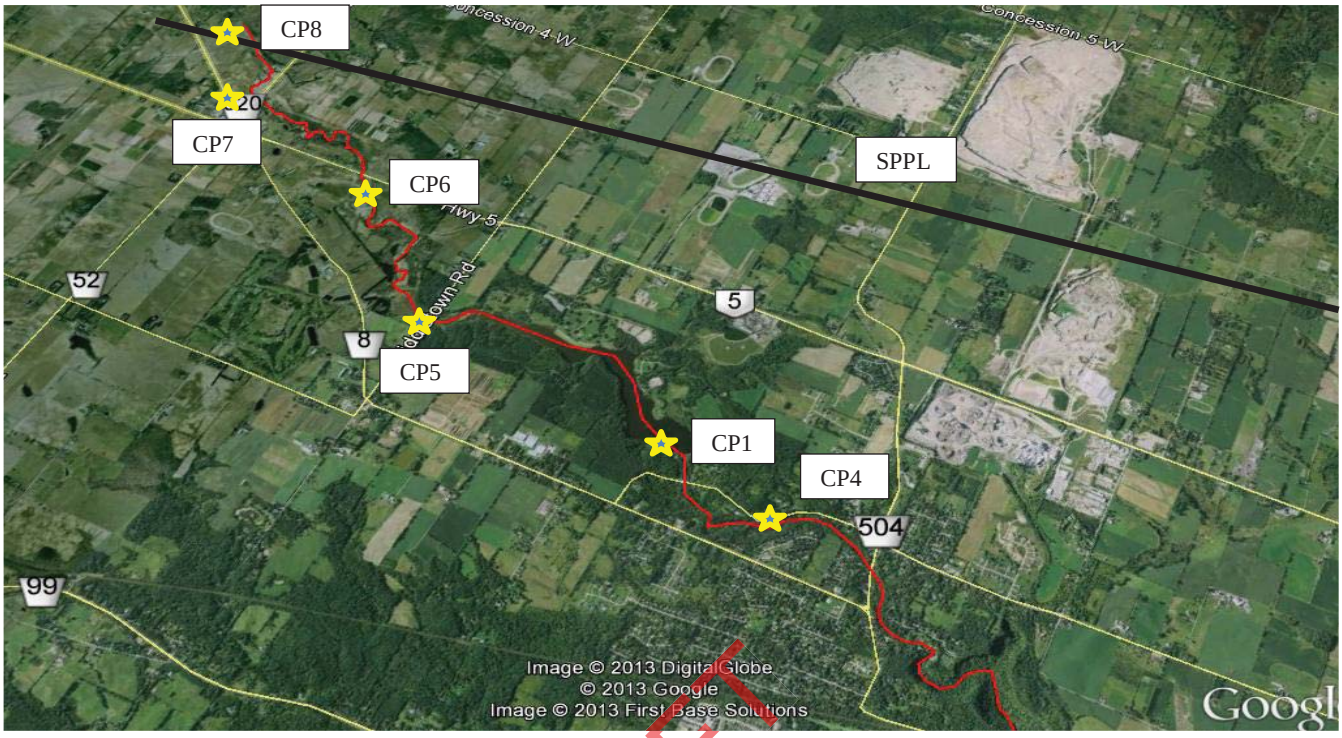
Estimated velocity		**Dimensions**		**Other**	
Fall:	1m/s	Avg. Width: Avg. Depth: Max. Width:	10m 1m 35m	Bed Material:	rock/rubble/ silt/sand

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.



Spencer Creek Control Points

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8
Harvest Rd
Rock Chapel Rd
Sydenham Rd
Creighton Rd
King St W
99
Olivet St
Osler Dr
CP3
Olympic Dr
York Rd
Coates Dr
CP2
Old Ancaster Rd
Image © 2013 DigitalGlobe
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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7	

	Control Point		
	CP1	CP2	CP3
Access/ Location	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. **Should try and stop oil before entering into Christies Conservation area, (swimming and picnic areas).** **Gate across driveway could be locked.**	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	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 **Boom 1000' to direct oil to one side of dam.**	Heavy booms Skimmers Dispersants	Heavy Booms Skimmers Dispersants
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7		
	Control Point		
	CP7	CP8	CP9
Access/ Location	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).**	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.	
Site	Control point is 15m east of bridge at meander running north. Good anchorage on both sides. 12m wide, 1m deep, .2m/s.	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.	
Containment Method	Skimmers Foam booms Dispersants	Skimmers Foam booms Dispersants	
Distance to Containment Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Spencer Creek Tributary A and B
	Watercourse Crossing #	Map 133-Mile 126.5
	Location	Town of Flamborough)

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	

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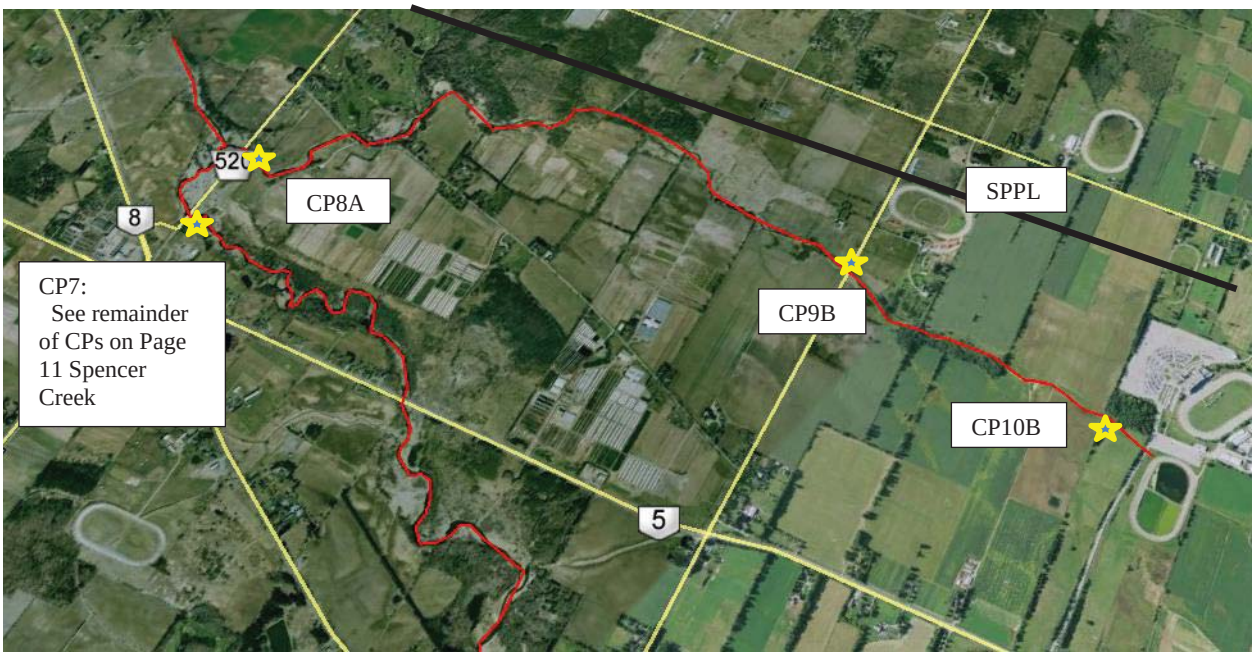
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.3m/s	Avg. Width: Avg. Depth: Max. Width:	5m .75m 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: 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.**



Spencer Creek Tributary A & B Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.6		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5		
	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, rivate 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 Disperants Skimmers
Distance to Containment Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus tributary A Watercourse Crossing #: Map 133-Mile 130.7 Location: Town of Flamborough

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	

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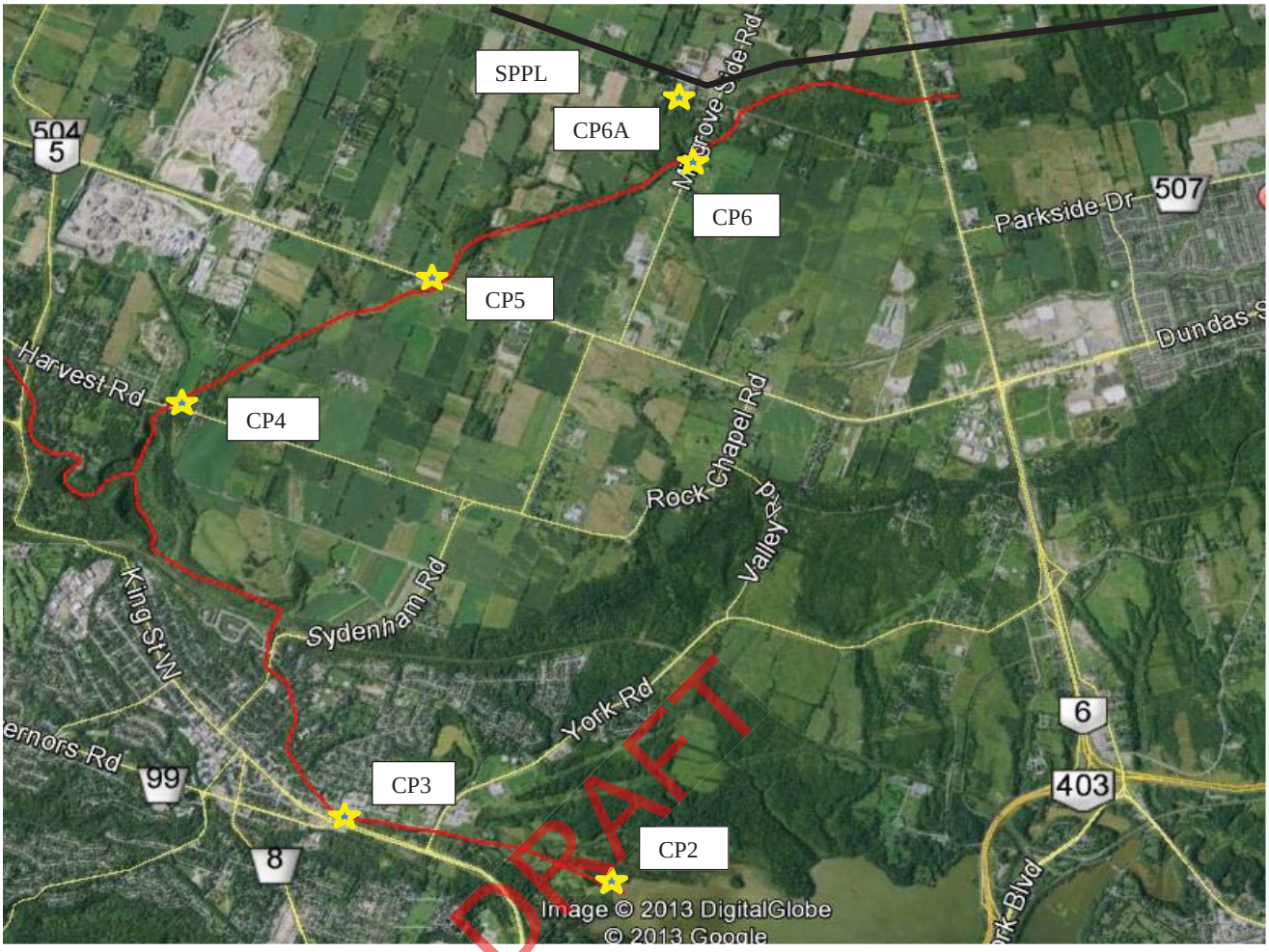
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.1m/s	Avg. Width: Avg. Depth: Max. Width:	2m .3m 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.



Logie's Creek Control Points

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Rock Chapel Creek / Borer's Creek
	Watercourse Crossing #	Map 133-Mile 130.8
	Location	Town of Flamborough

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	

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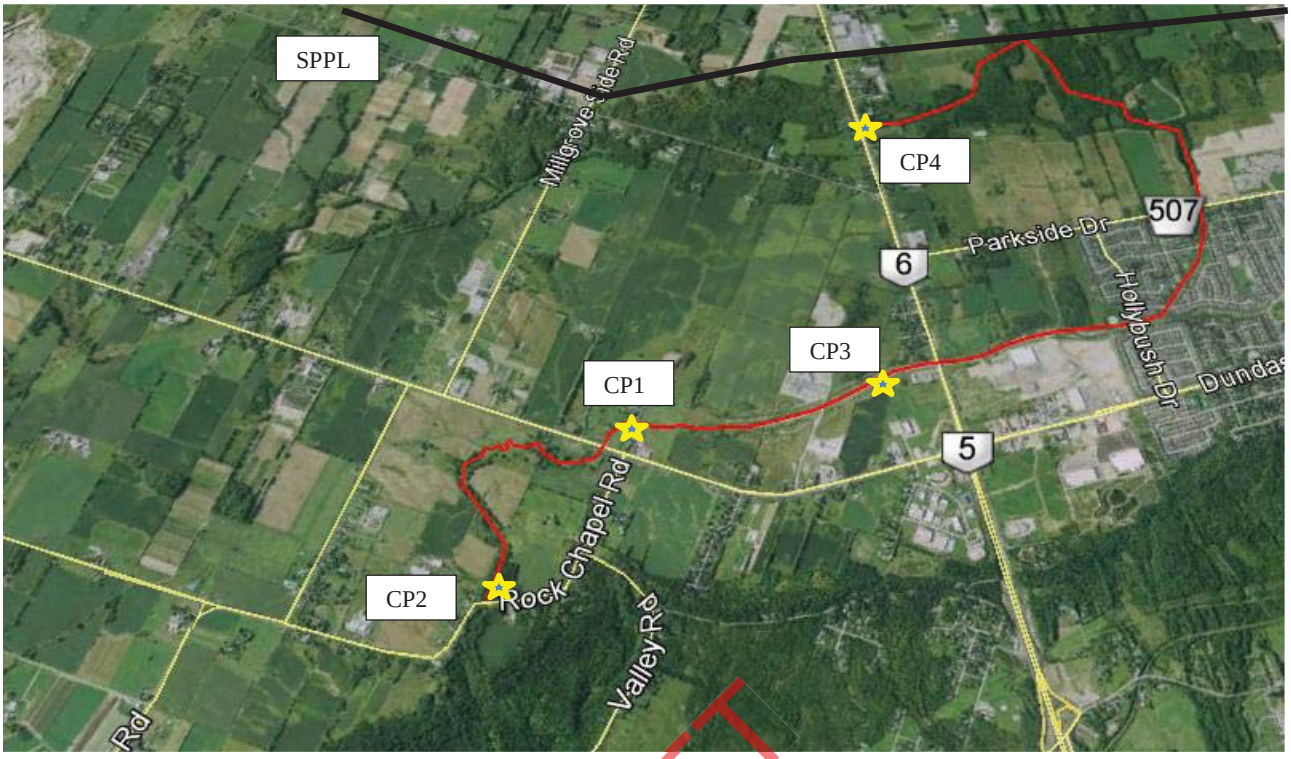
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Winter:	.5m/s	Avg. Width: Avg. Depth: Max. Width:	1m .2m 1.5m	Bed Material:	muck/silt

2. Potential environmental sensitivities:

Flows out of large wetland into smaller wetland on east side of Hwy 6.
Note: Go to CP1 first although it is before CP2 as large falls start 20m after CP1.



Rock Chapel & Borer`s Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Rock Chapel Creek / Borer's Creek Watercourse Crossing # Map 133 - Mile 130.8		
	Control Point		
	CP1	CP2	CP3
Access/ Location	CP1 is before CP2 because of Borer's Falls. 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 coarses.**	Access on west side of Rock Chapel Rd. Pull off road on east side of bridge with the creek approx. 4m to the west.	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.
Site	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.	Control at bridge. There is little anchorage except the bridge itself. Water is very fast. 2m/s, .5m deep, 3m wide. **Use extreme caution as there is a 30m waterfall 40m downstream.**	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.
Containment Method	Booms Skimmers Logs or planks to block spillgate	Booms Skimmers	Booms Foam Dispersants Skimmers
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Rock Chapel Creek / Borer's Creek Watercourse Crossing # Map 133 - Mile 130.8		
	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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Page for drawing of Map 137 named: SPPL 15

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing #: Map 137 - Mile 135.3
	Location: Burlington

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

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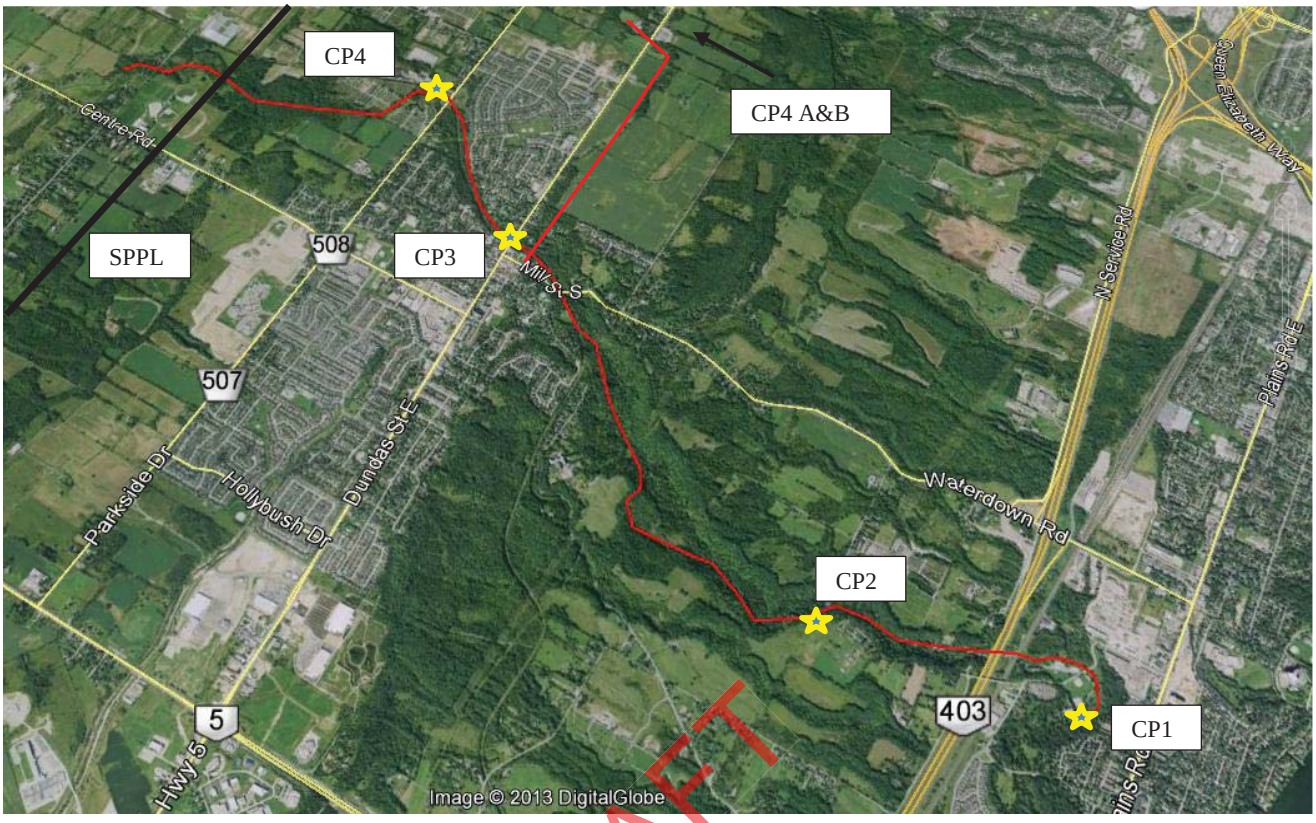
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**
Summer:	.5m/s	Avg. Width: Avg. Depth: Max. Width:	4m .2m	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 Acadamy south of Waterdown backs onto the creek.



Grindstone Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing # Map 137 - Mile 135.3	

	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 unchorage	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing # Map 137 - Mile 135.3		
	Control Point		
	CP4	CP5	CP6
Access/ Location	Access on north side of Parkside Dr. - can get vechicle 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		

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Grindstone Creek Tributaries Watercourse Crossing # Map 137 - Mile 137
	Location Burlington

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

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1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Summer:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	1m .1m 1.5m	Bed Material:	rock/rubble

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 Acadamy south of Waterdown backs onto the creek.

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Tributaries Watercourse Crossing # Map 137 - Mile 137		
	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Tributaries Watercourse Crossing # Map 137-Mile 137	

	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 ease 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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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name	Bronte Creek (Twelve Mile Creek)
	Watercourse Crossing #	Map 142-Mile 140

See Section 09-1606 Pipeline Spill Response Tactics-Bronte Creek for detailed plans

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Sixteen Mile Creek and East Sixteen Mile Creek Watercourse Crossing # Map 147-Mile 144

See Section 09-1607 Pipeline Spill Response Tactics- 16 Mile Creek for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Joshua's Creek Watercourse Crossing #: Map 163-Mile 148.2 Location: Oakville

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

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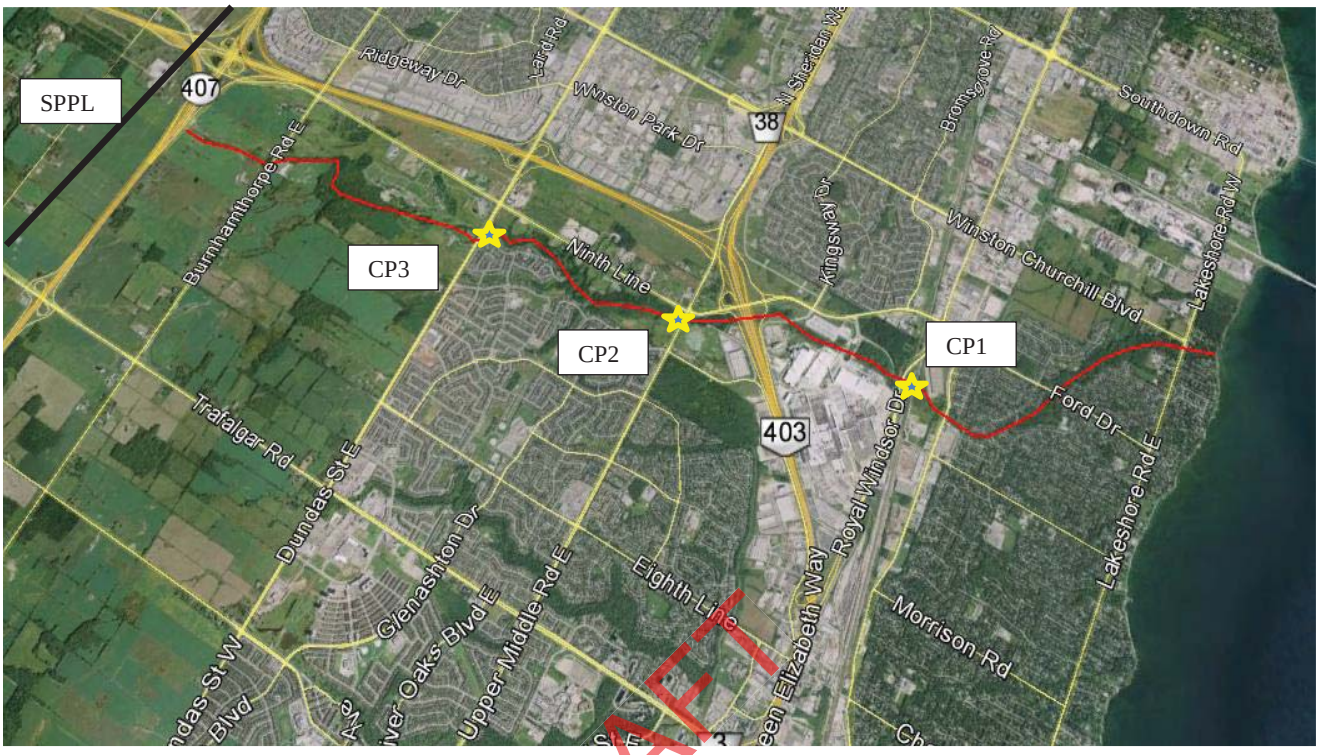
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	2m .2m 3-4m	Bed Material:	silty stone

2. Potential environmental sensitivities:

Creek runs through farmlands. Bisects 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.



Joshua`s Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Joshua's Creek Watercourse Crossing # Map 163-Mile 148.2	

	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek (Tributary of Credit River) Watercourse Crossing #: Map 163-Mile 149.2 Location: Mississauga

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	

DRAFT

1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	1.5m .2m 10m	Bed Material:	Silt

2. Potential environmental sensitivities:

Highly urbanized area.

Major portion of creek is buried.



Loyalist Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek Watercourse Crossing # Map 163 - Mile 149.2	

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek Watercourse Crossing # Map 163 - Mile 149.2	

	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		

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Sawmill Creek Watercourse Crossing # Map 163 - Mile 150.8
	Location Mississauga

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	

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1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	1m .02m 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.



Sawmill Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**		Watercourse Name: Sawmill Creek Watercourse Crossing # Map 163 - Mile 150.8

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Sawmill Creek Watercourse Crossing # Map 163-Mile 150.8	

	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	

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Mullet Creek Watercourse Crossing # Map 163 - Mile 152.3
	Location Mississuaga

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	

DRAFT

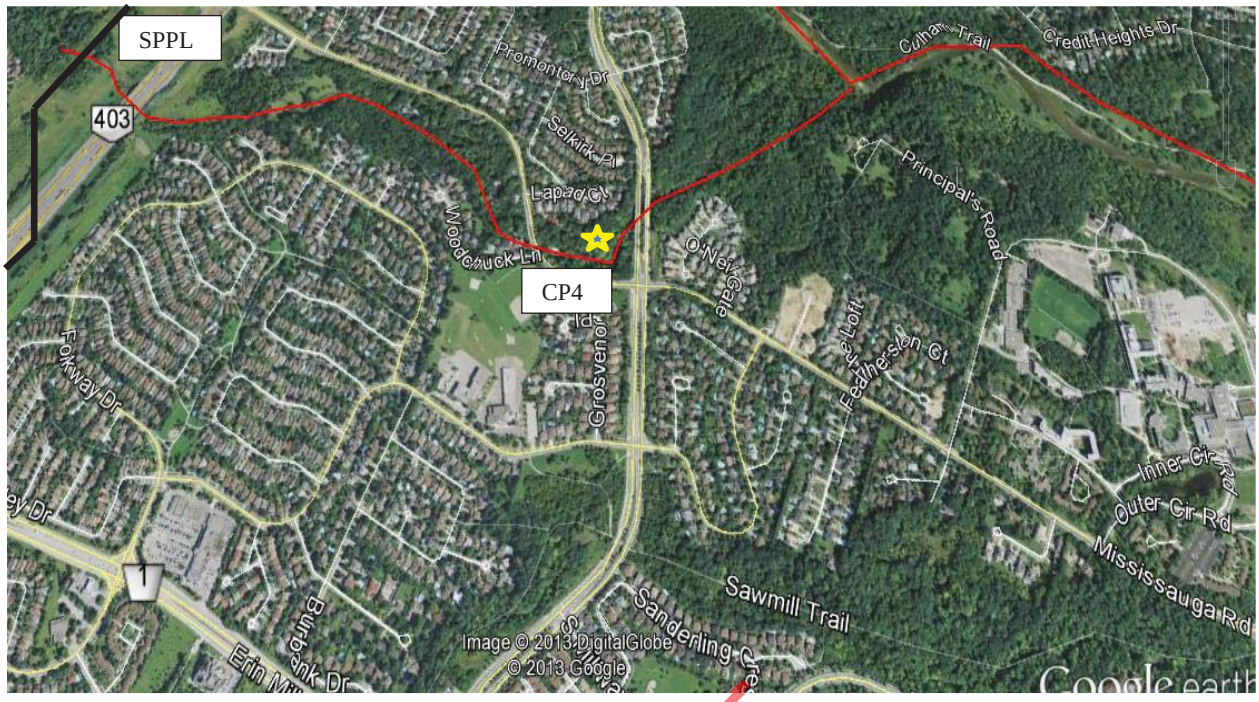
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	2m .2m 10m	Bed Material:	silt stone

2. Potential Environmental Sensitivities:

Urbanized. Mature ravine woodlands.

Joins Credit River in Promentory Woods.



Mullet Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mullet Creek Watercourse Crossing # Map 163 - Mile 152.3

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Credit River
	Watercourse Crossing #	Map 163-Mile 152.5
	Location	Mississauga

See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Tributary to Credit River Watercourse Crossing # Map 163 - Mile 152.7
	Location Mississauga

See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155 Location: Mississauga

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	

DRAFT

1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	2m .02m 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.



Mary Fix Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155		
	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	- Absorbants - Vacuum pump		
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Cooksville Creek Watercourse Crossing # Map 163 - Mile 155.5

See Section 09-1608 Pipeline Spill Response Tactics-Cooksville Creek for detailed plans

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Cooksville Creek Tributary Watercourse Crossing # Map 163 - Mile 156

See Section 09-1608 Pipeline Spill Response Tactics-Cooksville Creek for detailed plan

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Little Etobicoke Creek Watercourse Crossing # Map 163 - Mile 157.5
	Location Etobicoke

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

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1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	3m .5m 4m	Bed Material:	silt/gravel

2. Potential Environmental Sensitivities:

Flows through highly industrialized area

Flows through the small urban parks of Rathwood, Applewood Hills and Willow Creek.



Little Etobicoke Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Little Etobicoke Creek Watercourse Crossing # Map 163 - Mile 157.5	

	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		- south side - small barricade - 100m down before first bend - 3m wide - .5m deep	- small pool north side - 4m wide - .4m deep
Containment Method		- Absorbants - vacuum pump	- Absorbants - vacuum pump
Distance to Control Point		100m	20m

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Etobicoke Creek Watercourse Crossing # Map 163 - Mile 158.8
	Location Etobicoke

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See Section 09-1604 High Water Action Plan & Pipeline Spill Response Tactics-Etobicoke Creek for detailed plans

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This page for drawing of Map 170A named: SPPL 19

This page for drawing of Map 170B named: SPPL 20

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name Mimico Creek Watercourse Crossing # Map 170-Mile 162.2

See Section 09-1609 Pipeline Spill Response Tactics- Mimico Creek for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Humber River / Emery Creek Watercourse Crossing # Map 170 - Mile 166
	Location Etobicoke

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See Section 09-1605 High Water Action Plan & Pipeline Spill Response Tactics- Humber River for detailed plans

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169
	Location: Etobicoke

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

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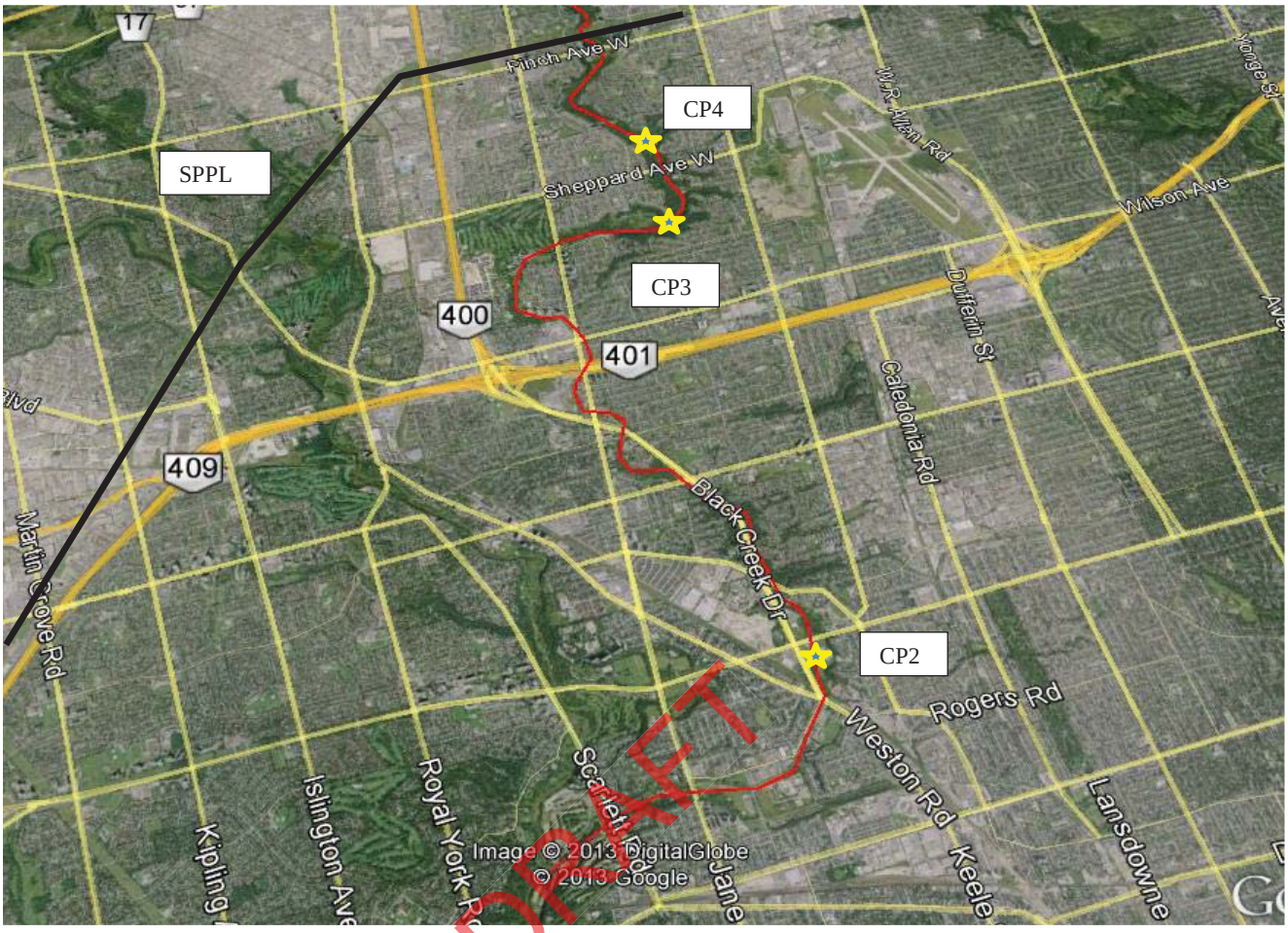
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	4m .2m 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.
Bisects 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.



Black Creek Control Points

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169	

	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 Eglington 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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169

	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		

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ROC3535c Attachment - Spill Prevention and Response Plan with Comments

Waterdown to Finch Project

Spill Prevention and Response Plan

Imperial

Esso Mobil

EM Document No.:
ONT-WF-SPPL-UP-RP-0006

UPI Doc Number:
24255-598-3RT-10013

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ACRONYMS AND ABBREVIATIONS

CEPA	*Canadian Environmental Protection Act*
EI	Environmental Inspector
EPA	Ontario *Environmental Protection Act*
EPP	Environmental Protection Plan
EPC	Engineering, Procurement and Construction Management Contractor
MECP	Ministry of Environment, Conservation and Parks
NFPA	National Fire Protection Association
HDB	Horizontal directional boring
HDD	Horizontal directional drilling
QP	Qualified Person
SAC	Spills Action Centre
SPPL	Sarnia products pipeline
UFC	Unified Facilities Criteria
UPI	Universal Pegasus International

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1. OVERVIEW AND PURPOSE

As part of the Waterdown to Finch Project Environmental Protection Plan ("EPP"), this Spill Prevention and Response Plan has been developed to provide best practices for the Contractor to implement during and construction activities. It provides guidance on spill prevention, contingency planning, and reporting practices for the timely and effective prevention and response to potential inadvertent, construction-related releases to land and surface water. This Spill Prevention and Response Plan delineates provisions for the inadvertent release of both non-hazardous and potentially hazardous material (e.g., certain lubricating oils, drilling wastes).

The guidelines included in this Spill Prevention and Response Plan will be followed to reduce the potential for a spill to land or surface water and thereby protect terrestrial, groundwater and surface water resources. Performance objectives for the management of potential substance release have been included in this Spill Prevention and Response Plan that consider the Project's risks and compliance obligations, including:

- Planning and prevention - preventing the inadvertent release of materials that may have a deleterious effect on the terrestrial and aquatic environments;
- Spill management - responding with appropriate measures in a timely manner to an inadvertent release; and
- Spill notification and reporting - providing timely notifications and reports to key project personnel and regulatory agents.

All employees, contractors and consultants will abide by all federal, provincial and local requirements for disposal and release reporting requirements for all products and waste materials that are potentially hazardous to human health and the environment.

Once in operation, the pipeline will be included in Imperial's current operational plans and procedures for the SPPL and is not within the scope of this plan. This includes Imperial's Emergency Response Plan that will be implemented in response to the unlikely event of a pipeline leak during operation.

2. REGULATORY CRITERIA

The interception and cleanup of spills must comply with provisions in the *Environmental Protection Act*, R.S.O. 1990 ("EPA"), specifically regulation 224/07 which outlines regulation for Spill Prevention and Contingency Plans and regulation 675/98 and 225/07 which outline the Classification and Exemption of Spills and Reporting of Discharges. Under Ontario Reg. 675/98, in the event of an inadvertent spill, the Spills Action Centre ("SAC") must be notified in a timely manner.

The Contaminated Materials and Management and Handling Plan will be implemented according to the requirements of the Ministry of Environment, Conservation and Parks ("MECP").

3. ROLES AND RESPONSIBILITIES

3.1 Proponent

Imperial Oil Limited is the owner of the Project and aside from external regulatory reporting, will delegate the implementation of this Spill Prevention and Response Plan to the Engineering, Procurement and Construction Contractor ("EPC").

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Imperial is responsible for all regulatory and external reporting associated with the Spill Prevention and Response plan and in accordance with permits and authorizations.

3.2 Engineering, Procurement and Construction Contractor

The EPC is responsible for the development, design and supervision of the implementation of the construction Spill Prevention and Response Plan, including:

- Leading the development of the Spill Prevention and Response Plan.
- Selecting and designing Spill Prevention and Response measures that are best suited for the site-specific environmental conditions.
- Reviewing and approving on-site design modifications.
- Developing and implementing contingency plans for addressing Spill Prevention and Response controls that are not effectively or successfully implemented.
- Overseeing inspection of Spill Prevention and Response controls.

3.3 Authorized Personnel

The Contractor will assign Authorized Personnel who will be designated to handle fuel, lubricants or other regulated substances. Authorized personnel will be familiar with the requirements of the Spill Prevention and Response Plan.

3.4 Contractor

The EPC will assign a construction Contractor who is responsible for following the Spill Prevention and Response Plan including:

- Installing the Spill Prevention and Response Plan measures according to specifications.
- Inspecting, monitoring, and maintaining Spill Prevention and Response Plan measures.
- Personnel shall notify the crew foreman or Environmental Inspector immediately of any spill of a petroleum product or hazardous liquid, regardless of volume.
- Following spill prevention, notifications and reporting to Imperial.

3.5 Environmental Inspector

The EPC will assign an Environmental Inspector (“EI”) who will be responsible for inspection and monitoring of the activities and mitigation measures outlined in the Spill Prevention and Response Plan including:

- Understanding the Spill Prevention and Response Plan and its implementation.
- Inspecting Spill Prevention and Response measures on a regular basis and after rainfall/snowmelt events.
- Monitoring compliance with the provisions of the Spill Prevention and Response Plan.
- Implementing contingency measures if the prescribed Spill Prevention and Response Plans are not effective.
- Confirm appropriate agency notifications are made (notification to be completed by Imperial), spill resources are allocated, and clean-up is accomplished in accordance with applicable agency requirements.
- Documenting all site inspections and corrective actions.

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3.6 Subcontractor(s)

If the Contractor or EI determines that a spill is beyond the scope of on-site equipment and personnel, the Contractor will assign an emergency response Subcontractor to contain and/or clean up the spill.

The Contractor or Subcontractor will retain a Qualified Person ("QP"), as defined in Ontario Regulation 153/04 (as amended) and licensed to practice in the Province of Ontario, to review, direct and manage all activities related to soil management (contaminated, non-contaminated, excess soil etc.) and soil importation activities during the construction activities of the Project.

The Subcontractor will assist the Contractor and EI to monitor containment procedures to ensure that the actions are consistent with the requirements of this Spill Prevention and Response Plan.

4. PLANNING AND PREVENTION

This section summarizes minimum standards for handling and storing regulated substances and cleaning up spills. Potential sources of construction-related spills include machinery and equipment failure, fuel handling, transfer accidents and storage tank leaks. The Contractor will be responsible for implementing, at a minimum, the following planning and prevention measures (Table 4-1).

Table 4-1: Spill Planning and Prevention Measures

Activity/ Feature	General Spill Prevention Measures
Training	1. Train Contractors and all involved on-site staff on the Spill Prevention and Response Plan, implementation, prevention, use of emergency kit and reporting for both hazardous materials and spill response. 2. Include specific instructions regarding applicable notifications and appropriate response actions to be taken in the event of a release in on-site staff training. 3. Contractor employees will be briefed on procedures to respond to a pipeline spill (e.g. damage to a third party adjacent in-service pipeline) during mandatory safety and environment training to be provided by the EPC.
Planning	4. Temporary workspaces to be assessed prior to use to identify suitable locations for long term vehicle parking, refueling stations, and areas for mechanical work and signage provided to illustrate where these activities are to take place. 5. Spill prevention equipment (spill kits, drip pans, etc.) to be strategically located at each site.
Spill kits and materials	6. Maintain spill kits to contain a sufficient quantity of absorbent and barrier materials to adequately contain and recover foreseeable spills. These kits may include, but are not limited to absorbent pads, straw bales, absorbent clay, sawdust, floor-drying agents, spill containment barriers, plastic sheeting, skimmer pumps, and holding tanks. This equipment will be located near fuel storage areas and other locations as necessary to be readily available. 7. Maintain, clearly label and have easily visible the appropriate release containment (spill kits) and recovery equipment and materials at all work sites. 8. Contractor to train all staff with the locations of the spill control equipment and materials and have readily accessible during construction activity. 9. Carry materials adequate to control foreseeable spills in all fueling vehicles, and where necessary, service vehicles. Such material may include but not be limited to absorbent pads, commercial absorbent material, plastic bags with ties, and shovels.

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Activity/ Feature	General Spill Prevention Measures
Transport, Storage and Handling of Fuels/ Hazardous Liquids	10. Only employ Authorized Personnel to transport, store, and handle fuels / hazardous liquids. 11. Travel of fuel trucks transporting fuel to on-site construction equipment occur only on access roads approved by the EI. 12. Maintain all equipment in proper running order to prevent leaking or spilling of potentially hazardous or toxic products. This includes hydraulic fluid, diesel, gasoline and other petroleum products. 13. Store all hazardous materials, chemicals, fuels and lubricating oils more than 30 m from any wetlands, streams and waterbodies. 14. Do not park equipment overnight (including but not limited to light plants, generators, pumps, and machinery) within 30 m of a wetland or waterbody unless secondary containment provisions have been implemented and approved by the EI in advance. 15. Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water (e.g., at a distance of greater than 30 m from top of bank). 16. Store fuel in contractor yards only or as approved by the EI. 17. Equip all fuel nozzles with functional automatic shut-offs 18. Maintain signage at and adjacent to fuel storage areas indicating “Fuel Storage Area – No smoking within 15 meters.” 19. Maintain fire extinguishers in suitable locations according to regulatory requirements and specifications. 20. Keep tools and materials on-site to stop leaks. Such equipment may include, but not be limited to, plugs of various sizes, 3M tank patches, a hammer, assorted sizes of metal screws with rubber washers, a screwdriver, and plastic tape. 21. Store fuels, lubricants, waste oil, and any other regulated substances in aboveground tanks only. 22. Conform to all applicable industry codes for storage tanks and containers (e.g., Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations under the *Canadian Environmental Protection Act* [“CEPA”]). 23. Utilize a suitable secondary containment structure at each fuel storage site. Line these structures with suitable plastic sheeting; provide a minimum containment volume equal to 150 percent of the volume of the largest storage vessel. 24. Do not have drains in the secondary containment areas. Precipitation may be drawn off as necessary. Discharge any accumulated water if no spillage has occurred in the secondary containment structure. Pump any accumulated waste into drum storage for disposal if spillage has occurred in the structure. 25. Make all efforts to dispense fuel during the daylight hours. 26. Station personnel at both ends of the hose during fueling unless both ends are visible and are readily accessible by one person.
Directional Drilling/ Boring	27. Implement Inadvertent Returns during HDD Plan that includes measures to stop work, contain the drilling fluid/mud and prevent its further migration into the watercourse, and notify all applicable authorities. Prioritize clean-up activities relative to the risk of potential harm and dispose of drilling mud in a manner that prevents re-entry into the watercourse. Do not implement clean-up measures that result in greater damage to the banks and watercourse than from leaving the drilling mud in place.

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Activity/ Feature	General Spill Prevention Measures
Watercourses/ Wetlands	28. Contractor to store hazardous materials, chemicals, fuel and lubricating oils, and perform refuelling, maintenance, and lubricating activities more than 30 m from wetlands, streams, and waterbodies (including drainage ditches), and water supply wells. 29. While the setback for refueling, storage, and maintenance near wetlands and waterbodies is compulsory 30 m it may be unavoidable in certain instances due to site specific conditions or unique construction requirements (e.g., continuously operating pumps or equipment on barges). If this activity occurs within wetlands or near streams for refueling of continuously operating pumps, use secondary containment for these unique requirements. 30. Line secondary containment structures with suitable plastic sheeting, provide a containment volume of at least 150 percent of the storage vessel, and allow for at least one foot of freeboard. 31. Provide adequate lighting for these locations and activities.
Inspection and Monitoring	32. EI to monitor the Contractor's compliance with the Spill Prevention and Response Plan. 33. Notify the appropriate Spill Coordinator if an accidental spill arises, regardless of the size. 34. Notify key project personnel and regulatory agencies, per the Spill Notification and Reporting Procedures described in Table 3.

5. SPILL MANAGEMENT

The following response and management procedures will be followed immediately upon learning of any fuel, oil, hazardous material, sediment release, drilling mud or other regulated substance spill, or upon learning of conditions that will lead to an imminent spill (Table 5-1). Spills are defined as the release of a pollutant into the natural environment, from or out of a structure, vehicle or other container that is abnormal in quality or quantity in light of all of the circumstances.

Table 5-1: Spill Response and Management Procedures

Activity/ Feature	General Response and Management Measures
Immediate Spill Response	1. When a spill has occurred, the Contractor will immediately: a. Assess the safety hazards of the situation and remove sources of ignition, if safe to do so. b. Identify the product, stop the source and physically contain the spill as soon as safe to do so. c. Engage emergency services if required. d. Notify Imperial Oil Limited and the EI of the incident. e. Mobilize on-site personnel, equipment, and materials for containment and/or cleanup commensurate with the extent of the spill. f. Engage and assist the Emergency Response Subcontractor as needed and monitor containment procedures to ensure that the actions are consistent with the requirements of this Spill Prevention and Response Plan. g. Coordinate with Imperial to determine the need to evacuate spill sites to safeguard human health; and h. Delineate the release and containment area to avoid further disturbance in the area. 2. EI will complete the Spill Report Form (Appendix A) 3. Imperial Oil Limited will notify the applicable stakeholders

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Activity/ Feature	General Response and Management Measures
Spill Response – Fuel Truck	In addition to the Immediate Spill Response above, the Contractor will: 4. Pump the tanker dry (into appropriate containers or another tanker). 5. Remove the tanker from the site. 6. Recover the spilled product. 7. Clean-up the contaminated area with absorbent materials. 8. Dispose of sorbent pads, heavily contaminated soil and vegetation at an approved facility.
Spill Response - Adjacent to or into a Waterbody	In addition to the Immediate Spill Response above, the Contractor will: 9. Deploy booms, skimmers, sorbents, etc., if feasible, to contain and recover the spilled material from the waterbody. 10. Clean-up the contaminated area, including downstream shorelines. 11. Dispose of contaminated soil and vegetation at an approved facility.
Pipeline spill	12. Notify Imperial's Emergency Pipeline Control at 1-800-372-9597 (24-hours/day) as well as the Imperial Environmental Lead in the event of a suspected Imperial pipeline spill (or from an adjacent pipeline). Imperial Operations to implement the Operational Emergency Response Plan.
Cleanup, storage and disposal of contaminated materials	13. Determine clean-up options and appropriate methods to recover and dispose of potentially contaminated soil or vegetation at an approved facility. 14. Recover the released materials from the defined containment area using equipment suitable to the nature and extent of the release. 15. Cleanup the release and contaminated areas. Consultation with a qualified remediation specialist and/or Company Representative may be required. 16. Store and cover excavated soils on site with plastic sheeting in a bermed area to prevent and contain runoff if temporary storage is necessary. 17. Dispose of contaminated materials, and contaminated soils and vegetation at an approved facility in accordance with applicable provincial and federal regulations. 18. Use only licensed carriers to transport contaminated material from the site to a disposal facility. 19. For the storage and disposal of contaminated materials refer to the Waste Management Plan.

6. SPILL NOTIFICATION AND REPORTING

The following notification and reporting procedures will be taken immediately upon learning of any fuel, oil, hazardous material, sediment release, drilling mud or other regulated substance spill (Table 6-1).

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Table 6-1: Spill Notification and Reporting Procedures

Activity / Features	General Notification and Reporting Procedures
Internal notification	1. Contractor to notify Imperial and EI immediately of any spill of a petroleum product or hazardous liquid, regardless of volume. 2. Imperial to notify applicable stakeholders as required.
Internal reporting	3. Contractor to ensure all cleanup activities required by a jurisdictional agency are satisfactorily met and provide documentation to Imperial demonstrating this compliance. a. EI to complete a Spill Report Form (refer to Appendix A) within 24-hours of the occurrence of a spill, regardless of the size of the spill. Include a record of the report in the Project files per Ontario Regulation 675/98: b. Imperial to keep this record for two years after the spill for all Class V, VII, VIII, IX and XI spills. c. Imperial to keep this record for five years after the spill for all Class X (non-reportable) spills. 4. Contractor to complete any required follow up written reports, associated laboratory analysis, and other documentation as requested by the EI on a site specific basis.
External notifications	5. Imperial to report spills and discharges, per the Ontario EPA, to the MECP through the SAC at 1-800-268-6060. 6. Imperial to notify the appropriate federal, provincial and local agencies, Indigenous communities as well as additional parties or agencies. 7. Imperial to report the spill to the municipality in which the spill occurred. 8. Imperial to notify the landowner of the property on which the spill occurred. 9. All spills, regardless of volume, that enter directly or indirectly into a sanitary or storm sewer or rural ditch must be reported to the City of Hamilton, City of Toronto, City of Burlington, City of Mississauga, the Region of Halton, Region of Peel, Town of Milton and the Town of Oakville. Phone numbers for all stakeholders are in Appendix B. Exemptions for municipal notifications will be reviewed on a case by case basis.

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7. REFERENCES

Government of Ontario. 1990 (updated 2019). Environmental Protection Act, R.S.O 1990, c. E. 19 Available online at https://www.ontario.ca/laws/statute/90e19. Accessed May 2019.

OEB (Ontario Energy Board). 2016. *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario*. 7th Edition, 2016.

MOE (Ministry of Environment). 2007.Guideline for Implementing Spill Prevention and Contingency Plans Regulatory Requirements (O.Reg.224/07). Available at https://archive.org/details/std01079161.ome/page/n7. Accessed May 2019.

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APPENDIX A SPILL REPORT FORM

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Spill Report Form

(The Contractor must complete this for any spill, regardless of size, and submit the form to the Imperial Representative within 24 hours of the occurrence)

Date of Spill: _____ Date of Spill Discovery: _____

Time of Spill: _____ Time of Spill Discovery: _____

Name and Title of Discoverer: _____

Type of material spilled and manufacturer's name: _____

Legal Description of spill location to the quarter section: _____

Directions from nearest community: _____

Estimated volume of spill: _____

Estimated duration of the release of the pollutant: _____

Weather conditions: _____

Topography and surface conditions of spill site: _____

Spill medium (pavement, sandy soil, water, etc.): _____

Proximity of spill to surface waters: _____

Did the spill reach a waterbody? _____ Yes _____ No

If so, was a sheen present? _____ Yes _____ No

Describe the causes and circumstances resulting in the spill: _____

Describe the extent of observed contamination, both horizontal and vertical (i.e., spill-stained soil in a 5-foot radius to a depth of 1 inch): _____

_____

Describe immediate spill control and/or cleanup methods used and implementation schedule:

_____

_____

Describe the method used to dispose of the pollutant and any part of the environment that was affected by the spill: _____

Current status of cleanup actions: _____

Any adverse effects observed as a result of the spill: _____

Name and Company for the following:

Construction Superintendent: _____

Spill Coordinator: _____

Imperial Representative: _____

Person Who Reported the Spill: _____

Environmental Inspector: _____

Form completed by: _____ Date: _____

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APPENDIX B SPILL REPORTING CONTACTS

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Table B-1: Spill Reporting Contacts

Agency	Notification Period	24-hour Reporting Hotline	Regulation/Code	Comments
Provincial Contacts				
Ministry of Environment, Conservation and Parks via Spills Action Centre	Immediately	1-800-268-6060	Ontario Reg 2675/98	Will include Technical Standards and Safety Authority notification, if applicable.
Municipal Contacts				
City of Hamilton	Contractor to confirm	1-905-540-5188	Ontario Reg 2675/98	Spill Reporting Hotline
City of Toronto	Contractor to confirm	1-416-325-3000 311 (within Toronto)	Ontario Reg 2675/98	Spill Reporting Hotline
City of Burlington	Contractor to confirm	1-905-333-6166	Ontario Reg 2675/98	City of Burlington Roads, Parks and Forestry Department
City of Mississauga	Contractor to confirm	1-905-615-3000	Ontario Reg 2675/98	24 hour dispatch
Region of Peel	Contractor to confirm	1-905-791-7800	Ontario Reg 2675/98	Spill Response Hotline
Town of Milton	Contractor to confirm	1-905-878-7252 311 (within Milton)	Ontario Reg 2675/98	Town of Milton
Town of Oakville	Contractor to confirm	1-905-845-6601 311 (within Oakville)	Ontario Reg 2675/98	Town of Oakville
Indigenous Community Contacts				
Haudenosaunee Development Institute	TBD	TBD		Haudenosaunee Confederacy Chiefs Council
Huron-Wendat Nation	TBD	TBD		
Mississaugas of the Credit First Nation	TBD	TBD		
Six Nations of the Grand River	TBD	TBD		
Conservation Authority Contacts				
Toronto Region Conservation Authority	Contractor to confirm	1-416-661-6600		Toronto Region Conservation Authority
Hamilton Region Conservation Authority	Contractor to confirm	1-905-825-6000		Hamilton Region Conservation Authority
Halton Region Conservation Authority	Contractor to confirm	1-905-825-6000		Spill Response Hotline
Credit Valley Conservation Authority	Contractor to confirm	1-905-670-1615		Credit Valley Conservation Authority

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TITLE **Imperial Facility - Emergency Response Plan**
SECTION 08: Specific Contingency Plans
SUBJECT 15: Spill - Low Vapour Pressure 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 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.

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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.

Incident : _____ Facility: _____ Date : _____

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	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 all 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	Isolate the leaking pipeline section by ensuring the appropriate main valves are closed, if safe to do so.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	6	Assess the situation using the "Disciplined Approach": a) Evaluate the extent of the spill b) Determine the need to stop all/or other operations including shutting down other pipelines in the same corridor, if applicable. c) 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) d) Determine the need to call the Facility ER Team (ERP-09-04: Appendices: Facility Specific «Contacts Lists») e) Evaluate the need for Municipal ER support. If required, call local Police, Fire Services and Public Works (ERP-09-04) f) Notify First Nations so they are able to stand up representatives to attend to protection of critical sites and provide guidance to responders. (ERP-09-04 to be updated with regional First Nations contact information) g) Decide on the action plan. Get Support, if required and Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»).		
	7	Evaluate effectiveness of the safety perimeter, using air-monitoring equipment (Lower Explosion Limit), if applicable		
	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.		
	11	Call the local Police for traffic and safety perimeter control and the Fire Dept. Services for vapour dispersion or suppression and fire prevention, if spilled product migrated off the right of way or if otherwise warranted and not already done. See ERP-09-04		

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Continue following steps if the spill has migrated to public or third party premises. If not, go directly to step #17.

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	12	Establish a Unified Command structure with Public Authorities as per ERP-01-05, ERP-02-01 and ERP-04-02, if not already done.		
	13	Notify IOL Public Affairs (ERP-06-02: Emergency Response Contacts and Resources: Other Imperial Emergency Response Resources).		
	14	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; a) Did spill/leak go into any city sewer systems (sanitary, rainwater or sanitary)? b) 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») c) Are vapours present in nearby businesses/residences? d) Did the spilled material reach the water table? e) Any drinking water wells within 1 km of the spill source? f) What response resources do you have? g) Decide on the action plan.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	15	Did hydrocarbon go into a city sewer system? If yes: a) Contact City Public Works (ERP-09-04 or dial "0") b) Obtain sewer plot plan from the City Public Works c) Determine safety perimeters using monitoring device (i.e. like LEL meters) in co-operation with City Public Works d) Have installed appropriate number of chimneys or explosion-proof fans at street manholes to discharge the vapours e) Verify if gasoline vapours are present in nearby residences and if so, request Police /Fire Dept to evacuate those residents f) Identify / Ensure no sources of ignition g) Block sewers downstream. Recover product with a vacuum truck and have sewer systems flushed starting upstream. If distillate, use the same steps even though there are much lesser risks associated with this type of product.		
	16	Did petroleum product reach the water table? If yes: a) Provide alternate source of drinking water to affected residents b) Involve a company Environmental Specialist c) Determine the perimeter by taking water samples and getting them analyzed using the services of a professional firm d) Transfer the follow-up activities with help from the Imperial (CFO) Business Management involved.		
	17	Is hydrocarbon present in a ditch, stream or river? If yes: a) Remove all sources of ignition b) If crude, check for H_2S c) Disperse the vapours with water fog d) Ask the Fire Dept Services to spray a blanket of hydrocarbon compatible foam, if hydrocarbon trapped and is felt appropriate e) Recover product with a vacuum truck. If distillate: a) Remove all sources of ignition b) Contain using a dam, boom or other means c) Recover with a vacuum truck.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	18	Identify any potential downwind exposures (i.e. flammable vapour cloud, liquid product movement, etc.). If necessary, utilize Police for any further remaining evacuations.		
	19	Refer to ERP-04-03: General Response Procedures: Response Principles and Key Tactics of this Plan for general product behaviors and response tactics.		
	20	Advise Fire Services to spray foam (hydrocarbon compatible foam such as AFFF or AFFF/ATC for alcohol type concentrate). If needed.		
	21	Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»), if not already done.		
	22	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 Other useful numbers can be found in ERP-06-03, or, in ERP-09-04 for Local Authorities: Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____		
	23	Determine the potential for additional releases, if safe to do so.		
	24	Use absorbents and/or other methods to contain the spilled product at the spill area(s).		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	25	Re-evaluate safety perimeter, using air monitoring equipment (such as LEL) and permit vehicle traffic only if appropriate.		
	26	Recover visible product in affected area(s), using appropriate transfer equipment or vacuum truck and use established safe operating procedures.		
	27	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.		
	28	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).		
	29	Decontaminate equipment and clothing, if applicable.		
	30	Resume normal operations when situation is re-assessed and only when all potential risks have been eliminated.		
	31	Conduct debriefing with Responders and on-site personnel prior to demobilization and document, per PDM 1-15-04.		

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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

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170	Etobicoke	162 - 170

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WATER CROSSINGS	MILE POST
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Page for drawing of Key Map 140 named: SPPL 12

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Barlow Creek Tributary of Fairchild Creek
	Watercourse Crossing #	Map 133-Mile 121.5
	Location	Troy (Town of Flamborough)

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	
First Nations:	Haudenosaunee Development Institute Contact: TBD Phone: TBD	Huron Wendat Nation Contact: TBD Phone: TBD
	Mississaugas of the Credit First Nation Contact: TBD Phone: TBD	Six Nations of the Grand River Contact: TBD Phone: TBD

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1. Watercourse characteristics at pipeline crossing:

Estimated velocity	**Dimensions**		**Other**
Fall	Avg. Width: Avg. Depth: Max. Width:	3m .02m 6m	Bed Material: Limestone / silt

2. Potential environmental sensitivities:

Agricultural area.

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek A tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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 Dsipersants Skimmers	Foam Booms Skimmers Dispersants	Booms Foams Dispersants
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing #: Map 133-Mile 122.7 Location: Town of Flamborough

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	

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1. Watercourse characteristics at pipeline crossing:

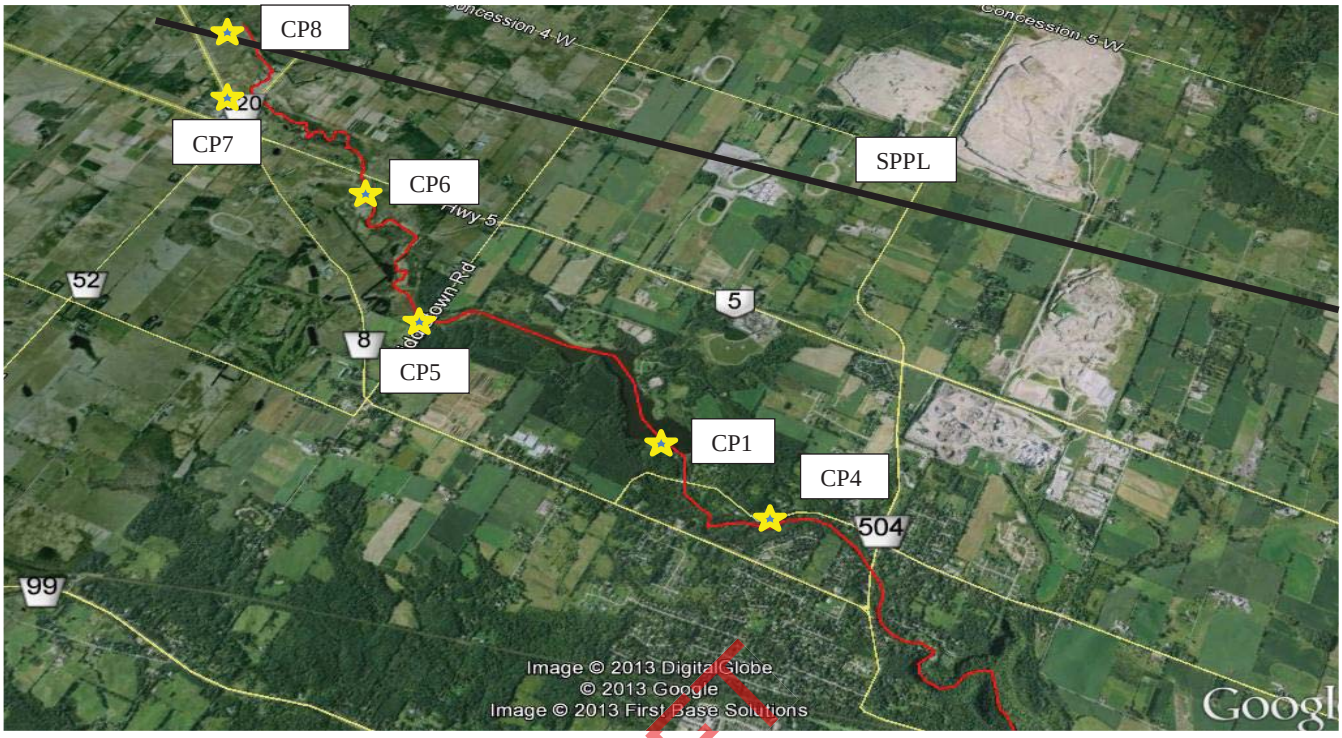
Estimated velocity		**Dimensions**		**Other**	
Fall:	1m/s	Avg. Width: Avg. Depth: Max. Width:	10m 1m 35m	Bed Material:	rock/rubble/ silt/sand

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.



Spencer Creek Control Points

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8
Harvest Rd
Rock Chapel Rd
Sydenham Rd
Creighton Rd
King St W
99
Olivet St
Osler Dr
CP3
Olympic Dr
York Rd
Coates Dr
CP2
Old Ancaster Rd
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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7	

	Control Point		
	CP1	CP2	CP3
Access/ Location	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. **Should try and stop oil before entering into Christies Conservation area, (swimming and picnic areas).** **Gate across driveway could be locked.**	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	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 **Boom 1000' to direct oil to one side of dam.**	Heavy booms Skimmers Dispersants	Heavy Booms Skimmers Dispersants
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7		
	Control Point		
	CP7	CP8	CP9
Access/ Location	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).**	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.	
Site	Control point is 15m east of bridge at meander running north. Good anchorage on both sides. 12m wide, 1m deep, .2m/s.	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.	
Containment Method	Skimmers Foam booms Dispersants	Skimmers Foam booms Dispersants	
Distance to Containment Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Spencer Creek Tributary A and B
	Watercourse Crossing #	Map 133-Mile 126.5
	Location	Town of Flamborough)

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	

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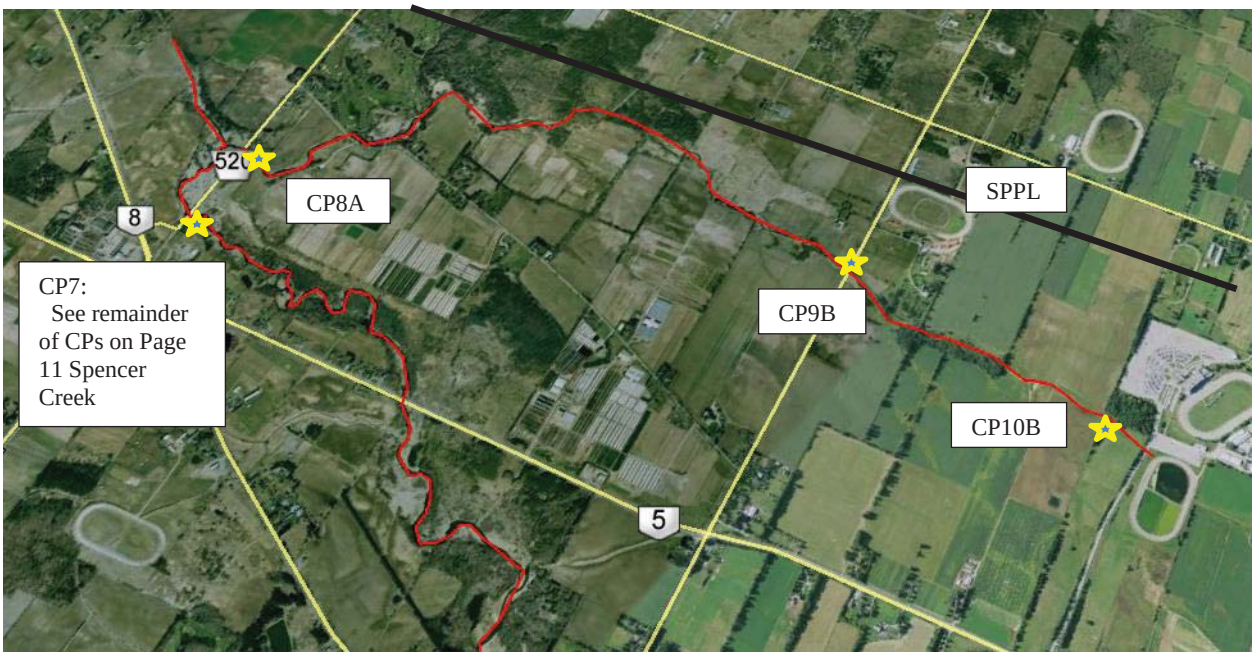
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.3m/s	Avg. Width: Avg. Depth: Max. Width:	5m .75m 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: 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.**



Spencer Creek Tributary A & B Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.6		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5		
	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, rivate 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 Disperants Skimmers
Distance to Containment Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus tributary A Watercourse Crossing #: Map 133-Mile 130.7 Location: Town of Flamborough

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	

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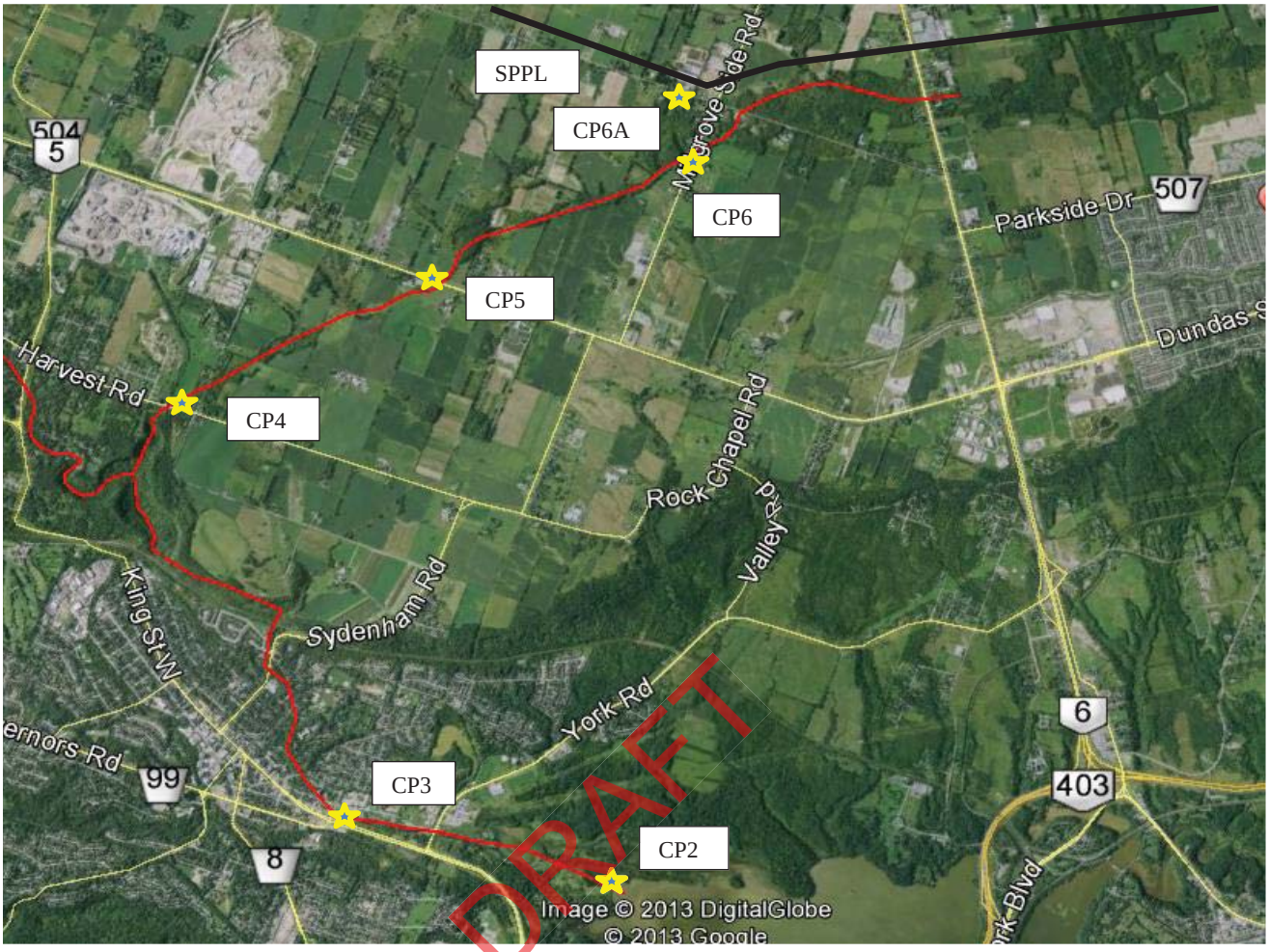
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.1m/s	Avg. Width: Avg. Depth: Max. Width:	2m .3m 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.



Logie's Creek Control Points

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Rock Chapel Creek / Borer's Creek
	Watercourse Crossing #	Map 133-Mile 130.8
	Location	Town of Flamborough

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	

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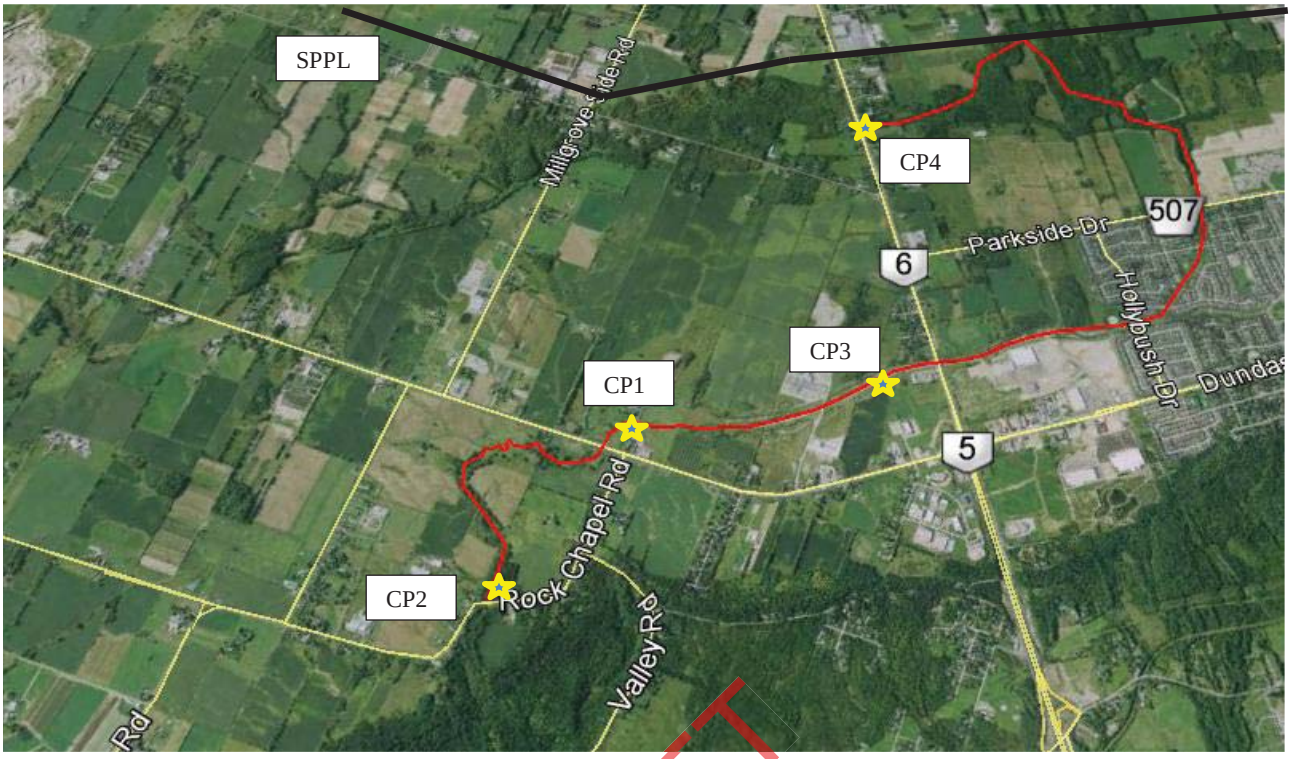
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Winter:	.5m/s	Avg. Width: Avg. Depth: Max. Width:	1m .2m 1.5m	Bed Material:	muck/silt

2. Potential environmental sensitivities:

Flows out of large wetland into smaller wetland on east side of Hwy 6.
Note: Go to CP1 first although it is before CP2 as large falls start 20m after CP1.



Rock Chapel & Borer`s Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Rock Chapel Creek / Borer's Creek Watercourse Crossing # Map 133 - Mile 130.8		
	Control Point		
	CP1	CP2	CP3
Access/ Location	CP1 is before CP2 because of Borer's Falls. 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 coarses.**	Access on west side of Rock Chapel Rd. Pull off road on east side of bridge with the creek approx. 4m to the west.	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.
Site	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.	Control at bridge. There is little anchorage except the bridge itself. Water is very fast. 2m/s, .5m deep, 3m wide. **Use extreme caution as there is a 30m waterfall 40m downstream.**	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.
Containment Method	Booms Skimmers Logs or planks to block spillgate	Booms Skimmers	Booms Foam Dispersants Skimmers
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Rock Chapel Creek / Borer's Creek Watercourse Crossing # Map 133 - Mile 130.8		
	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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Page for drawing of Map 137 named: SPPL 15

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing #: Map 137 - Mile 135.3
	Location: Burlington

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

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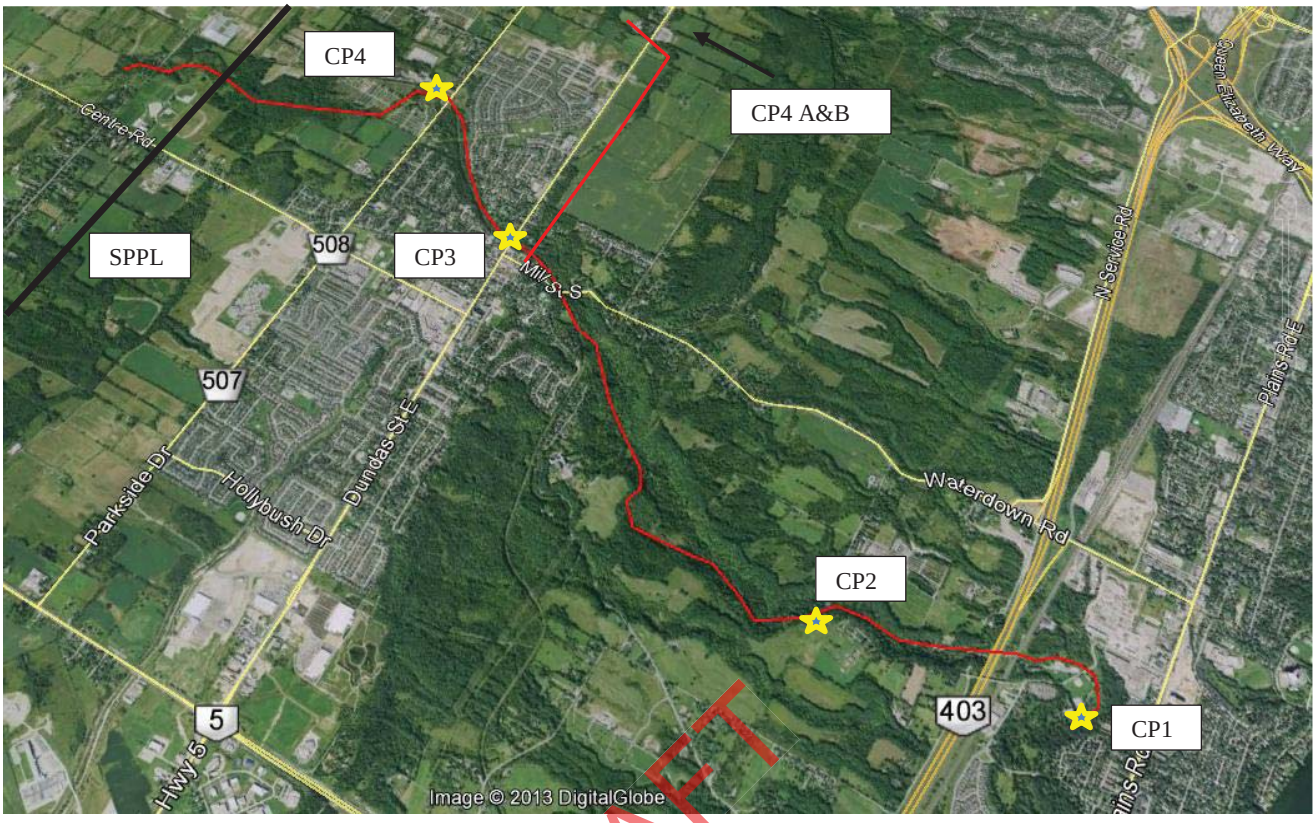
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**
Summer:	.5m/s	Avg. Width: Avg. Depth: Max. Width:	4m .2m	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 Acadamy south of Waterdown backs onto the creek.



Grindstone Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing # Map 137 - Mile 135.3	

	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 unchorage	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing # Map 137 - Mile 135.3	

	Control Point		
	CP4	CP5	CP6
Access/ Location	Access on north side of Parkside Dr. - can get vechicle 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		

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Grindstone Creek Tributaries Watercourse Crossing # Map 137 - Mile 137
	Location Burlington

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

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1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Summer:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	1m .1m 1.5m	Bed Material:	rock/rubble

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 Acadamy south of Waterdown backs onto the creek.

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Tributaries Watercourse Crossing # Map 137 - Mile 137		
	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Tributaries Watercourse Crossing # Map 137-Mile 137	

	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 ease 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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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name	Bronte Creek (Twelve Mile Creek)
	Watercourse Crossing #	Map 142-Mile 140

See Section 09-1606 Pipeline Spill Response Tactics-Bronte Creek for detailed plans

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Sixteen Mile Creek and East Sixteen Mile Creek Watercourse Crossing # Map 147-Mile 144

See Section 09-1607 Pipeline Spill Response Tactics- 16 Mile Creek for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Joshua's Creek Watercourse Crossing #: Map 163-Mile 148.2 Location: Oakville

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

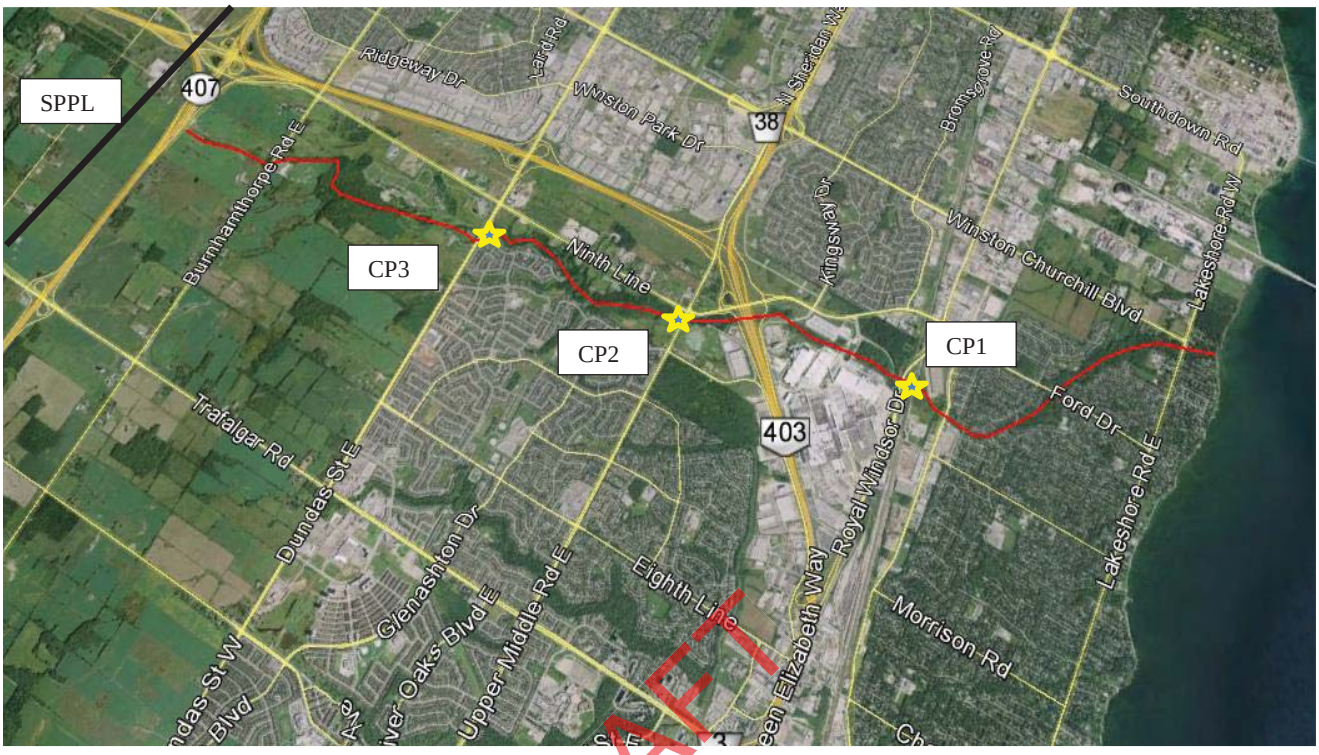
DRAFT

1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	2m .2m 3-4m	Bed Material:	silty stone

2. Potential environmental sensitivities:

Creek runs through farmlands. Bisects 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.



Joshua`s Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Joshua's Creek Watercourse Crossing # Map 163-Mile 148.2	

	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek (Tributary of Credit River) Watercourse Crossing #: Map 163-Mile 149.2 Location: Mississauga

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	

DRAFT

1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	1.5m .2m 10m	Bed Material:	Silt

2. Potential environmental sensitivities:

Highly urbanized area.

Major portion of creek is buried.



Loyalist Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek Watercourse Crossing # Map 163 - Mile 149.2	

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek Watercourse Crossing # Map 163 - Mile 149.2	

	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		

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Sawmill Creek Watercourse Crossing # Map 163 - Mile 150.8
	Location Mississauga

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	

DRAFT

1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	1m .02m 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.



Sawmill Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**		Watercourse Name: Sawmill Creek Watercourse Crossing # Map 163 - Mile 150.8

	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

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Sawmill Creek Watercourse Crossing # Map 163-Mile 150.8	

	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	

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Mullet Creek Watercourse Crossing # Map 163 - Mile 152.3
	Location Mississuaga

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	

DRAFT

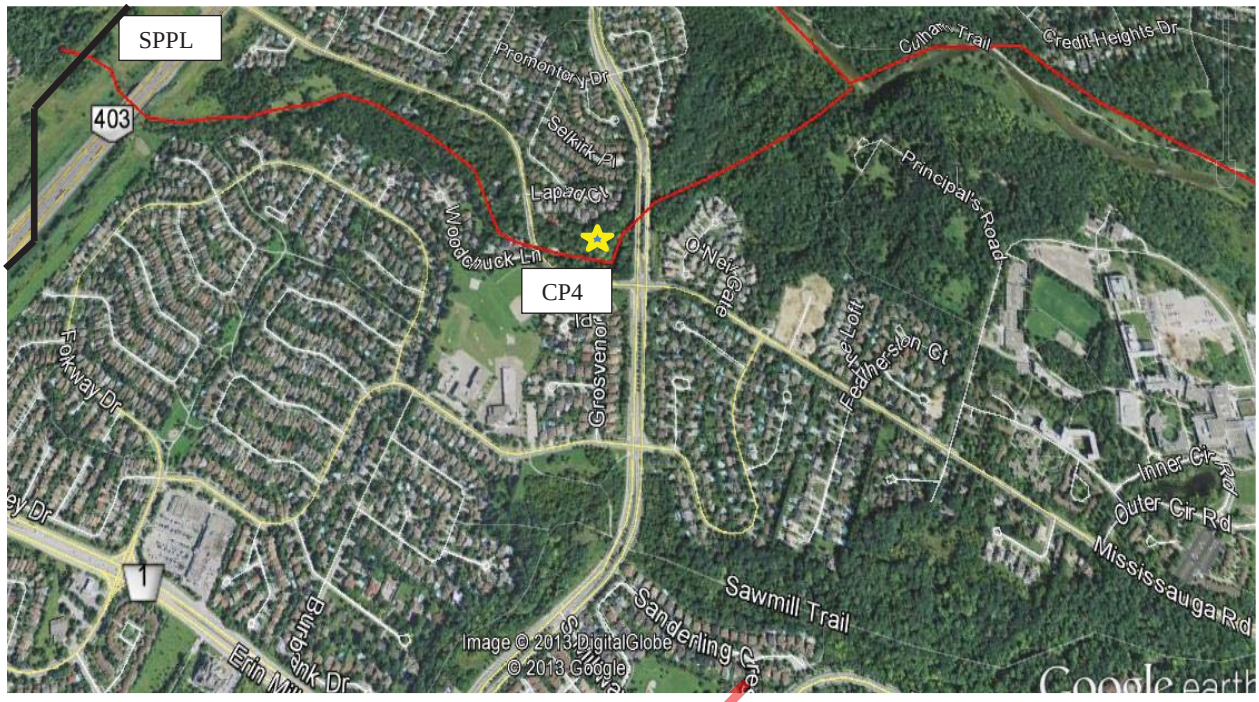
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	2m .2m 10m	Bed Material:	silt stone

2. Potential Environmental Sensitivities:

Urbanized. Mature ravine woodlands.

Joins Credit River in Promentory Woods.



Mullet Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mullet Creek Watercourse Crossing # Map 163 - Mile 152.3

	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

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Credit River
	Watercourse Crossing #	Map 163-Mile 152.5
	Location	Mississauga

See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Tributary to Credit River Watercourse Crossing # Map 163 - Mile 152.7
	Location Mississauga

See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans

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SPPL - A8.004

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155 Location: Mississauga

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	

DRAFT

1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	2m .02m 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.



Mary Fix Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155	

	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			

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155		
	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	- Absorbants - Vacuum pump		
Distance to Control Point			

DRAFT

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Cooksville Creek Watercourse Crossing # Map 163 - Mile 155.5

See Section 09-1608 Pipeline Spill Response Tactics-Cooksville Creek for detailed plans

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Cooksville Creek Tributary Watercourse Crossing # Map 163 - Mile 156

See Section 09-1608 Pipeline Spill Response Tactics-Cooksville Creek for detailed plan

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Little Etobicoke Creek Watercourse Crossing # Map 163 - Mile 157.5
	Location Etobicoke

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

DRAFT

1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	3m .5m 4m	Bed Material:	silt/gravel

2. Potential Environmental Sensitivities:

Flows through highly industrialized area

Flows through the small urban parks of Rathwood, Applewood Hills and Willow Creek.



Little Etobicoke Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Little Etobicoke Creek Watercourse Crossing # Map 163 - Mile 157.5	

	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		- south side - small barricade - 100m down before first bend - 3m wide - .5m deep	- small pool north side - 4m wide - .4m deep
Containment Method		- Absorbants - vacuum pump	- Absorbants - vacuum pump
Distance to Control Point		100m	20m

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Etobicoke Creek Watercourse Crossing # Map 163 - Mile 158.8
	Location Etobicoke

DRAFT

See Section 09-1604 High Water Action Plan & Pipeline Spill Response Tactics-Etobicoke Creek for detailed plans

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

DRAFT

SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name Mimico Creek Watercourse Crossing # Map 170-Mile 162.2

See Section 09-1609 Pipeline Spill Response Tactics- Mimico Creek for detailed plans

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Humber River / Emery Creek Watercourse Crossing # Map 170 - Mile 166
	Location Etobicoke

DRAFT

See Section 09-1605 High Water Action Plan & Pipeline Spill Response Tactics- Humber River for detailed plans

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169
	Location: Etobicoke

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

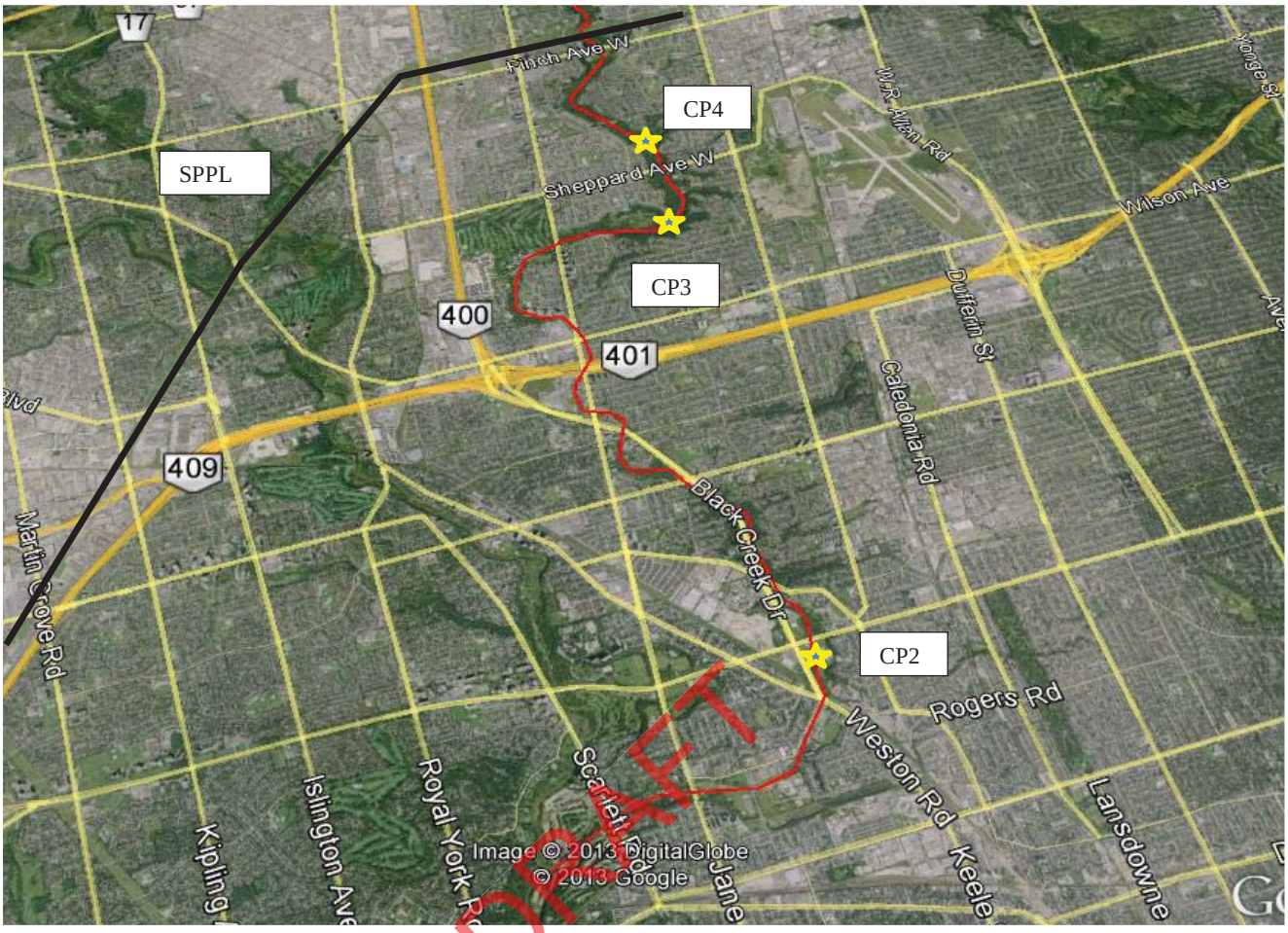
DRAFT

1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	4m .2m 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.
Bisects 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.



Black Creek Control Points

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169	

	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 Eglington 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

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169

	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		

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This page for drawing of Map 186 named: SPPL 24

DRAFT

Six Nations of the Grand River

ROC3517a (2 pages)

Imperial

July 26, 2019

Joanne Thomas, Consultation Supervisor
Six Nations of the Grand River
jthomas@sixnations.ca

Via email

Dear Joanne,

Re: Heat-Related Event and Proactive Steps to Address the Situation

This letter is to address a heat-related event that occurred during the Waterdown to Finch Stage 2 archaeology program on July 19, 2019 with your monitor and the recent issue on site regarding temperature and humidity readings and associated work expectations.

Imperial appreciates Six Nations' concerns, and wants to work with Six Nations to address them. Imperial takes these types of events very seriously.

Due to these concerns, Imperial has temporarily paused work on the Stage 2 archaeology program. Safety is our first priority. Work will recommence when an appropriate plan is in place to address the situation. Currently, we are working on initial ideas for the plan and will continue to engage Six Nations in a transparent manner as we develop solutions.

Our understanding of the July 19, 2019 heat event is that a monitor began to display heat-related symptoms. The monitor was moved to a shaded area and provided water. The affected monitor was taken to an emergency facility by another monitor. Concerns were raised about the reaction of Imperial's contractors to the event, and about ensuring steps are in place to prevent a future event. Also, concerns were raised about a respectful work environment.

To provide clarity, Imperial is the owner of the Waterdown to Finch Project. Given the size and the scope of the project, Imperial engages several contractors, who in turn engage several subcontractors, to assist with various parts of the project. Site contractors and subcontractors include UPI, ERM, TGH Safety, ASI, Past Recovery, and others. Given the number of parties involved, it is understandable that the concerns raised related to work supervision and authority, specifically as it relates to ensuring safe work on site in the heat, and Imperial is committed to further clarifying roles and responsibilities on site.

While we work to progress a plan, we highlight below certain principles that govern all site work, the existing safeguards in place, and the steps that may be taken to address the situation, and to ensure that it is not repeated.

1. Respectful Communication and Conduct: Imperial expects that all workers on site, regardless of their role or the circumstances, be courteous, respectful and mindful of their words and actions. *Going forward, if at any time you believe these expectations were not (or are not) being met, please advise Kelly Williams, Imperial Community Relations Officer, so that Imperial can ensure that events are investigated and appropriate action is taken.*

2. Working in Heat: The recent heat wave has created challenges. Imperial continues to work to proactively ensure that work is conducted in a safe, effective and efficient manner. All efforts will be made to mitigate the potential for heat illness in the field. In the event the humidex reaches a point where work cannot continue safely or has reached 42°C, all non-essential work will be stopped. Other steps are taken (i.e., slower pace of work, more frequent breaks, increased water

consumption) at humidex levels well below the stop work cut-off. This will be evaluated onsite in real-time conditions.

3. Support for Monitors: The health, safety and well-being of everyone on the site is a priority regardless of their role in the program. The expectation is that assistance and support will be provided to monitors (and everyone on site) in the event of a health and safety incident – including providing all necessary and available supports to ensure access to prompt and effective medical care.

4. Stop Work Orders: Everyone on site has the right to refuse work they think is unsafe. Furthermore, UPI, the prime contractor for the project and Imperial have the authority to stop work not related to safety. The subcontracting entities (ERM, Past Recovery and ASI) are to consult UPI or Imperial before stopping work for a reason *other than safety*. From a safety standpoint, ERM and TGH have the authority to stop all site work when related to safety.

A baseline expectation is that all contractors take steps to prevent safety incidents, including heat illness incidents. Furthermore, the expectation is that if an incident occurs, contractors and others assist in identifying and assessing next steps and ensure appropriate medical attention has been received, including transportation to an emergency facility, in the event of a health and safety event.

Imperial has reiterated these expectations to our contractors, including UPI, TGH Safety, ERM, Past Recovery and ASI, who have reaffirmed their commitment to ensuring a safe and respectful workplace. We will continue to engage our contractors to ensure these expectations are understood, and followed and the plan we are developing currently will help facilitate this.

Imperial is committed to a work environment that fosters mutual employee respect and positive working relationships. Conduct contrary to this is considered unacceptable in our workplace. It is Imperial's expectation that our contractors understand and respond in a way that is considerate and coordinated.

Imperial remains highly involved in the Waterdown to Finch Stage 2 archaeology field program to ensure project expectations are being met. As noted above, Imperial will continue to engage Six Nations in a transparent manner as we work to resolve these issues.

At any time, should you, or your monitors, have concerns related to the work environment, please bring these concerns to Kelly Williams, Imperial Community Relations Officer (kelly.williams@esso.ca or 519-328-8681).

Thank you for your time and attention.

Sincerely,



Martin Bates, Engineering Maintenance & Projects Manager
martin.bates@esso.ca

on behalf of

Ryan Klue
Waterdown to Finch Project Manager of Execution
587.476.3095
ryan.a.klue@exxonmobil.com

cc. Jessie Malone, Environment & Regulatory Advisor, jessie.malone@esso.ca
Kelly Williams, Community Relations Officer, kelly.williams@esso.ca

ROC3517b

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: July 26, 2019 2:28 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch-Imperial Oil Ltd-Correspondence
Attachments: Imperial WatFin Letter to Six Nations.pdf

From: Williams, Kelly /C
Sent: Friday, July 26, 2019 4:09 PM
To: 'Joanne Thomas' <jthomas@sixnations.ca>
Cc: 'rm1.miller@hotmail.com' <rm1.miller@hotmail.com>; 'Lonny Bomberry' <lonnybomberry@sixnations.ca>; Malone, Jessie M <jessie.m.malone@esso.ca>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Bates, Martin <martin.bates@esso.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Subject: Waterdown-Finch-Imperial Oil Ltd-Correspondence

Good afternoon Joanne,

Hope you are doing well.

I wanted to follow up on the recent events that have strained Imperial's relationship with your office and the monitors you have empowered to represent your Nation's interests during Imperial's field projects. Imperial has provided assurances and worked to reinforce direction to our onsite teams. However, at this time, Imperial recognizes that immediate action has to be taken. Imperial has made the decision to pause the Waterdown to Finch Stage 2 program to ensure an appropriate and effective resolution is found.

The attached correspondence from Imperial is the first step in this resolution. The project team understands the importance of providing clarity on how we can address these concerns and are working together to provide a plan for Six Nations of the Grand River First Nation to review. It will contain actionable items to facilitate the establishment of trust and confidence in Imperial and its contractors. I also want to take this opportunity to introduce Ryan Klue, who is copied in the correspondence, and will be joining the Waterdown to Finch Project to lead construction activities.

We have a long road before us on this project, and it is my hope that continuous communication and a willingness to listen to each other's point of view will make that road a lot smoother. Thank you for your continued efforts in making this possible.

Please let me know if you have any questions and I will be in touch with you next week.

Have a great powwow weekend!

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell
kelly.williams@esso.ca
Imperialoil.ca

ROC3518a (2 pages)

August 1, 2019

Joanne Thomas, Consultation Supervisor
Six Nations of the Grand River
jthomas@sixnations.ca

Via email

Dear Joanne,

Re: Waterdown to Finch Stage 2 archaeology program restart plan

This letter is to outline the plan for the Waterdown to Finch Stage 2 archaeology program restart. The plan aims to improve the work environment, clarify roles and support safe practices onsite.

Personnel

Imperial's prime contractor for the Project, UPI, is mobilizing three field staff to provide leadership during program activities. UPI will have a Construction Manager, Environmental Coordinator and Safety Manager on site starting the week of August 5 to take the lead on field work.

Roles and Responsibilities

- UPI Construction Manager will be introduced to the field team as the Single Point of Accountability (overall authority) in the field.
- UPI Environmental Coordinator and Safety Manager will report to the Construction Manager.
- UPI Environmental Coordinator will be the point of contact (POC) for all environmental subcontractors.
- UPI Safety Manager will be the POC for all Safety issues.
- Past Recovery and ASI Field Directors will continue to be the POC for all archaeology-specific items. Imperial prefers that these items be addressed in the field if at all possible.
- Imperial's Community Relations Officer, Kelly Williams, will continue to be the POC for archaeology-specific requests that exceed Ministry of Culture, Tourism and Sport Standards and Guidelines and the Field Directors' professional opinion. In such cases, field work will continue while Imperial and Six Nations discuss resolution of the issue.
- With respect to workplace issues outside of safety and archaeology, i.e., respectful workplace, if potential issues are not adequately addressed in the field, Kelly Williams will be the initial POC.
- ERM will continue to be responsible for field logistics.
- Monitors will continue to participate in and observe field work; ensure community perspectives and priorities are considered; and provide input regarding the project.
- TGH safety monitors are responsible for issuing work permits on behalf of Imperial Operations. They are responsible for implementing Imperial's safety policies and ensuring that they are being followed.

Training

- Prior to the Tuesday, August 6 restart, Imperial will provide an Indigenous Awareness briefing to the supervisor-level contractors, including the new Construction Manager, Environmental Coordinator and Safety Manager.
- Within the next month, Imperial will deliver a Project-specific Indigenous Awareness training course to all field contractors, including those participating in the environmental field work.
- UPI's Program Construction Manager will be in the field to provide project on-boarding to the new UPI personnel.

Communication

When field work is underway, there will be a 6am Daily Supervisors Meeting at a central location to be provided with the regular logistics communications. Monitors are invited to attend this meeting.

Safe Working in Heat
A process for resolution of heat-related issues has been developed to ensure the correct on-site person is involved. New instruments for measuring temperature, dew point and humidity are being purchased to ensure the accuracy and consistency of the readings. A procedure for resolution of issues has been developed to guide the process to the correct person.

For the summer months, the work day will start at 7am to take advantage of cooler temperatures earlier in the day.

As stated previously, Imperial is committed to a work environment that fosters mutual respect and positive working relationships. Conduct contrary to this is considered unacceptable in our workplace. It is Imperial's expectation that our contractors understand and respond in a way that is considerate and coordinated. Imperial remains highly involved in the Waterdown to Finch Stage 2 archaeology field program to ensure project expectations are being met. As noted above, Imperial will continue to engage your community in a transparent manner as we work to resolve these issues.

Please contact Kelly Williams, Imperial Community Relations Officer (kelly.williams@esso.ca or 519-328-8681) with any questions.

Thank you for your time and attention.

Sincerely,



Ryan Klue
Waterdown to Finch Project Manager of Execution
587.476.3095
ryan.a.klue@exxonmobil.com

cc. Jessie Malone, Environment & Regulatory Advisor, jessie.malone@esso.ca
Kelly Williams, Community Relations Officer, kelly.williams@esso.ca
Martin Bates, Engineering Maintenance & Project Manager, martin.bates@esso.ca

ROC3518b

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: August 1, 2019 6:10 PM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Curtis Campbell; Allidina, Zahra
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Re-start Plan
Attachments: 2019.08.01 Imperial WatFin Letter to Six Nations.pdf

---

From: Williams, Kelly /C
Sent: Thursday, August 1, 2019 8:07 PM
To: 'Joanne Thomas' <jthomas@sixnations.ca>
Cc: 'rm1.miller@hotmail.com' <rm1.miller@hotmail.com>; 'Lonny Bomberry' <lonnybomberry@sixnations.ca>; Klue, Ryan A <ryan.a.klue@exxonmobil.com>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>; Bates, Martin <martin.bates@esso.ca>; 'Jenna Down' <Jenna.Down@erm.com>
Subject: Waterdown-Finch Project-Imperial Oil Ltd-Stage 2 Program Re-start Plan

Dear Joanne,

As mentioned in the email from Jenna Down from ERM, the Stage 2 Archaeology Program will re-start on Tuesday, August 6. She will be in touch with you tomorrow regarding the logistics for your monitor. Attached is a letter from Ryan Klue, the construction project manager, that outlines the plan mentioned to you last week.

The letter is meant to provide Six Nations of the Grand River with reference information on a variety of field issues. Please let me know if you have any questions and have a great holiday weekend!

Best regards,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell

ROC3523a (2 pages)

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: September 5, 2019 9:45 AM
To: Projectmail - Wood E&I Calgary - Consultation
Cc: Murillo, Breanna K /C
Subject: FW: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9
Attachments: Issues Resolution and Communications_090419.pdf; Roles and Responsibilities 090519.pdf; Visio-Archy Field Program 090519.pdf

---

From: Williams, Kelly /C
Sent: Thursday, September 5, 2019 11:41 AM
To: 'Joanne Thomas' <jthomas@sixnations.ca>
Cc: Rose Miller <Rm1.Miller@hotmail.com>; Lonny Bomberry <lonnybomberry@sixnations.ca>; Majdalani, Elias <elias.majdalani@exxonmobil.com>; Malone, Jessie M <jessie.m.malone@esso.ca>; 'Crepeau, Patrick' <Patrick.Crepeau@hii-upi.com>; Benschop, Mark <Mark.Benschop@hii-upi.com>
Subject: Waterdown-Finch Project-Imperial Oil Ltd-Field Program Re-start-Sept 9

Dear Joanne,

The project team has been working very diligently, examining ways to improve the Waterdown-Finch Project archaeology field program, for the past few weeks. Roles and responsibilities have been reviewed and refined. Concrete ways to improve communication and resolve field issues have been created. We are all very much aware that the true test of these efforts will be defined by successful execution.

For your information and review I have attached the following documents for the Waterdown-Finch Project Archaeology Field Program.

1) Roles and Responsibilities
2) Organization Chart
3) Issues and Communication Protocol

Imperial is requesting that you appoint a Lead Monitor to be the main point of communication for Mark Benschop, the Field Coordinator. Please confirm the name of your Lead Monitor to me as soon as possible. Mark, Patrick Crepeau (Construction Coordinator) and myself will be your main contacts for resolving issues brought forward by your Lead Monitor when they can't be resolved in the field. **We are inviting all monitors to have lunch with the three of us on the first day of the re-start**. **We have reservations for noon at the Tin Cup Sports Grill.**

Tin Cup Sports Grill
1831 Walkers Line
Burlington, ON L7M 0H6

The date for the re-start of the fieldwork is Monday September 9th. I will be out in the field on this day and will be conducting more frequent field visits in the future. An email detailing the logistics will be sent to you and Rose by Mark Benschop. We have an important request regarding the first day. The property to be surveyed is private and the owner has asked that we send them the names of the entire crew who will be working on the parcel. ASI is assigned to parcel

ID WTFN0047, which is in Burlington. **If you could kindly send me the name of the monitor you will be deploying to this site on Monday, before the end of today it would be greatly appreciated.**

Imperial and the project team wish to thank you for your comments and feedback on the program. They were very helpful in guiding the review. If you have comments on these draft documents, please send to me as soon as possible. Contact me anytime you wish, and I follow-up with you via phone tomorrow to discuss any questions or comments you may have.

Sincerely,

Kelly Williams
Community Relations Officer
602 Christina Street
Sarnia, ON Canada N7T 7M5
519-328-8681 Cell

ROC3523b Attachment - Roles & Responsibilities (7 pages)

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DRAFT

1.0 ROLES AND RESPONSIBILITIES

1.1 General

The staff structure supporting the archaeological effort is based on a matrix organization. Each person is responsible to the project organizational hierarchy and to their respective organizations. The roles and responsibilities in this section and in the accompanying organizational charts define the project aspect of the matrix.

1.2 Acronyms

AFD	Archaeology Field Director (PR, ASI, and Other)
AFT	Archaeology Field Technicians (PR, ASI, and Other)
ALM	Archaeology Logistics Manager (ERM)
ASI	Archaeological Services Inc.
ATL	ERM Archaeology Technical Lead (ERM)
CCP	Community Consultation Personnel
CM	Construction Manager (UPI)
CRO	Community Relations Officer
CSID	Contractor Supervisor in Database (TGH or ERM)
ERCMP	Emergency Response and Care Management Plan
ERM	Environmental Resources Management (ERM)
FC	Field Coordinator (UPI)
FI	Field Inspector (ERM)
FL	Field Lead (ERM)
FSO	Field Safety Officer (ERM)
FSP	Field Safety Personnel
LC	Logistics Coordinator (ERM)
LM/FLR	Lead Monitors/Field Liaison Representatives
MTCS	Ministry of Tourism, Culture, and Sports
OA	Office Archaeologist (PR, ASI, and Other)
Other	Potential additional archaeology firm
PR	Past Recovery
PSM	Project Safety Manager (UPI)
ROW	Right-of-Way (CanACRE)
SSC	Sub-Surface Clearance (ERM)
UPI	UniversalPegasus International

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1.3 Logistics Staff

1.3.1 UPI Construction Manager (CM)

Responsible to progress and complete a safe, effective, and efficient archaeology field program to support the project. Single point of accountability (overall authority) in the field. Reports to the UPI Project Manager.

1.3.2 UPI Field Coordinator (FC)

All field crews report to the FC on a daily basis.

Responsible for executing the daily archeology logistics plan that has been approved by UPI CM. Reports to the UPI CM. Interfaces with LM/FLR, CRO, PSM, ALM, ATL, and MTCS License Holder.

1.3.3 ERM Archaeology Logistics Manager (ALM)

Responsible for managing the logistics for the field teams. Responsible for developing the logistics plans, 2-week look-ahead, base plan, reporting progress completion, and any contingencies. Interfaces daily with Stantec and CanACRE on these plans. Reports to the CM. Interfaces with FC, Field Leads, Stantec Survey Crew, CanACRE ROW Coordinator.

1.3.4 ERM Field Lead (FL)

Responsible for overseeing the progress at field level and ensuring field logistics are implemented. Reviews parcel limits with the SSC personnel to ensure the assessment does not encroach outside the defined parcel. Ensuring all field personnel are signed in at the beginning of the day, accounted for during timed breaks/lunch and signed out at the end of the day. Taking daily notes and ensuring information is relayed to the UPI FC and ERM office. Will be CSIDs after going through the Imperial training and approval process. Reports to FC. Interfaces with PSM, Permit Issuer, and ALM.

1.3.5 ERM Field Inspector (FI)

Responsible for completing pre-inspection on parcels prior to archaeology assessment. Inspection duties include identifying: parking capacity and location, vegetation concerns, SSC staking/flagging presence, survey staking, and adequate ploughing methodology. Reports to the ALM. Interfaces with the LC.

1.3.6 ERM Sub-Surface Clearance (SSC) Lead

Responsible for managing the public and private utility locates, overseeing of the SSC field personnel and following up with any sub-surface clearance

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related incidents, near misses or observations. Reports to the ALM. Interfaces with SSC Staff.

1.3.7 ERM Sub-Surface Clearance (SSC) Staff

Responsible for ensuring all public and private locates are completed prior to any intrusive work taking place in the field. This includes completing a visual check of the site to confirm all buried sub surface utilities are painted or staked in the field to identify all sub-surface utilities.

Any questions on site with regards to any signs of a utility will need to be addressed by the SSC Field Lead. They are ultimately accountable for all sub-surface clearances related matters. The SSC Staff also covers the role of FSO. Reports to FL. Interfaces with SSC Lead.

1.3.8 ERM Logistics Coordinator (LC)

Responsible to provide office support to the ALM in managing the logistics for the field teams including 2 week look ahead. Will work with the Field Inspector to ensure site access, parking locations, etc. meet the needs of the field crews. Reports to the ALM. Interfaces with Stantec Survey Crew and CanACRE ROW Coordinator.

1.3.9 CanACRE ROW Coordinator

Responsible for coordinating access for all of the archaeology work. Reports to the CM. Interfaces with ALM, LC.

1.3.10 Stantec Survey Crew

Responsible for staking the areas for archaeological assessment. Reports to the UPI CM. Interfaces with ALM, LC.

1.4 Archaeology Personnel

1.4.1 MTCS License Holder, Professional Archaeologist (Past Recovery)

The license holder for the project with the Ministry of Tourism, Culture, and Sports (MTCS) is responsible for:

Filing the report with the Ministry containing the full details of work done under the license and such other information as the Minister may require.

To ensure the work follows the “Standards and Guidelines for Consultant Archaeologists” issued by the MTCS.

1.4.2 ERM Archaeology Technical Lead (ATL)

Responsible for the archaeological technical aspect of the project including the deliverables of the archaeological field program such as communication of findings to UPI/Imperial, report deadlines and reviews. Have awareness

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of the project footprint and any adjustments from engineering. Reports to the ALM. Interfaces with FC, MTCS License Holder, OA's.

1.4.3 Office Archaeologist (OA) (PR, ASI, and Other)

Responsible for compiling archaeological reports for the MTCS license holder review, obtaining data regularly from the AFD, compiling data from the field to provide accurate progress data for the ERM ALM and ERM LC, and providing front end planning for the respective field crews. Interfaces with ALM and LC.

1.4.4 Archaeology Field Director (AFD) (PR, ASI, and Other)

Responsible for directing all archeological field work including determining archaeological potential and methodology. They are accountable for all archaeological field level decisions.

1.4.5 Archaeology Field Technicians (AFT) (PR, ASI, and Other)

Responsible for performing physical fieldwork, including screening, shoveling, backfilling test pits and walking ploughed fields. Each technician is responsible for examining soils for artifacts and soil profiles. Reports to AFD.

1.5 Field Safety Personnel (FSP)

It is everyone's responsibility to look out for the health and safety of the project team.

1.5.1 UPI Project Safety Manager (PSM)

Responsible for the overall safety program in the field including ensuring the work is progressing safely, developing safety plans as needed, continues to work on ERCMP, addresses any safety concerns in the field. Interfaces on a daily basis with TGH. Reports to the CM. Interfaces with all FSP.

1.5.2 ERM Field Safety Officer (FSO)

Responsible for ensuring IOL and ERM Health and Safety protocols are adhered to by all ERM subcontractors working on this project. The FSO is responsible to communicate any incidents or concerns to UPI PSM as well as UPI personnel to ensure everyone is aware of any health and safety incidents in the field. The FSO also covers the role of SSC Staff. Reports to the FL. Interfaces with FC and all FSP.

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1.5.3 Permit Issuer

Responsible for issuing the daily work permits to the crews. This role is being performed by TGH for Imperial Operations. Reports to Imperial Operations. Interfaces with CM, FC, and all FSP.

1.5.4 Contractor Supervisor in Database (CSID)

Responsible for ensuring Imperial HSE procedures are being implemented and providing safety oversight to the field crews. The CSID role is currently being performed by TGH. This role will transition to the ERM Field Leads after they go through the Imperial training and approval process. Interfaces with FC and all FSP.

1.6 Engagement Communities

1.6.1 Participating Communities

- Haudenosaunee Development Institute (HDI) / Haudenosaunee Confederacy Chiefs Council (HCCC)
- Huron-Wendat Nation (HWN)
- Mississaugas of the Credit First Nation (MCFN)
- Six Nations of the Grand River (SNFN)

1.6.2 Community Consultation Personnel (CCP)

Staff who have been delegated by their leadership to be the main contacts to represent the interests of their nation as Imperial undertakes the procedural aspects of the duty to consult as delegated to Imperial by the Ministry of Energy Northern Development and Mines. Staff also co-ordinate the field monitoring program for their community.

1.6.3 Monitors / Field Liaison Representatives

The activities of this role include:

To participate in and observe field work

To ensure community perspectives and priorities are considered in conducting assessments

Provides field communication to community offices

1.6.4 Lead Monitors / Field Liaison Representatives (LM/FLR)

Lead Monitor/Field Liaison Representative to be appointed by each community to liaise directly with UPI Field Coordinator (UPI FC)

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1.7 Imperial Consultation and Engagement Personnel

1.7.1 Imperial Community Relations Officer (CRO)

Manages consultation and engagement activities related to the Waterdown-Finch project with designated engagement communities by building and maintaining mutually beneficial relationships based on Imperial's principles and guidelines.

Supports the procedural aspects of the duty to consult with the engagement communities by coordinating comments and feedback regarding project information and programs, and ensuring a timely response from Imperial as the project proponent

Supports regulatory and permitting processes by facilitating community/project engagement ensuring that Imperial understands and responds to project impacts on traditional rights

Manages community engagements and acts as a facilitator and advisor for project's multi-disciplinary project team

In Relation to Archaeology Program

Responds to and advises on issues and concerns that cannot be resolved in the field and collaborates with communities and project team on resolutions

Performs regular field visits to build relationships with lead field monitors and to understand field dynamics to facilitate collaboration and issue resolution

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1.0 ISSUES RESOLUTION

1.1 Archaeology

Issues and concerns related to archaeology are to be addressed in the field as much as possible between the Archaeology Field Directors (AFDs) and the Lead Monitors/FLRs (LM/FLR) with facilitation by the Field Coordinator (FC).

If an issue or concern cannot be resolved in the field, the LM/FLR are to document the issue/concern and raise this with the Community Consultation Personnel (CCP). In turn they will share this issue/concern with the Imperial Community Relations Officer (CRO). In parallel, the AFD will document the issue/concern and provide this to the FC who will communicate this to the CRO. In such cases, field work will continue within the Ministry of Tourism, Culture, and Sport (MTCS) Standards and Guidelines (S&G) and the Field Directors' professional opinion.

1.2 Field Management Issues

Issues and concerns related to logistics and site management are to be brought forward by the Lead Monitors/FLRs (LM/FLR) to the Field Coordinator (FC). The FC will bring this issue to the Construction Manager (CM) and the Archaeology Logistics Manager (ALM).

If there is an inadequate or no response to the issue/concern, the LM/FLR are to document the issue/concern and raise this with the Community Consultation Personnel (CCP). In turn they will share this issue/concern with the Imperial Community Relations Officer (CRO). In parallel, the FC will document the issue/concern and will communicate this to the CRO.

2.0 RESPECTFUL WORKPLACE

Respectful workplace concerns are to be directed to the FC. The FC will work with the CM to address.

3.0 STOP WORK ORDERS

3.1 Safety Related

Imperial, UPI, ERM, and TGH have the responsibility and authority to stop all site work if dictated by Imperial HSE procedures.

Unsafe behaviors are to be reported immediately to the nearest Field Safety Personnel (FSP) and to be escalated immediately to the UPI Project Safety Manager (PSM) to determine an appropriate path forward. Work may continue if appropriate and in alignment with the site safety policies as determined by the PSM.

Everyone on site is covered by the Emergency Response and Care Management Plan (ERCMP).

3.2 Work Execution Related

UPI and Imperial have the authority to stop all site work if related to work execution.

The subcontracting entities are to consult with the FC before stopping work for a reason other than safety.

4.0 COMMUNICATION PROTOCOL FOR THE ARCHAEOLOGY PROGRAM

This communication protocol applies to the archaeology program and does not extend to other lines of discussion such as agreements.

The lines of communication are to be clearly established for the archaeology program. This protocol aims to reinforce our commitment to a mutually respectful and collaborative relationship, effective and timely communication and conflict management.

4.1 Daily Logistics Communications

Archaeology Logistics Manager (ALM) and Logistics Coordinator (LC) will develop the daily plan and submit to the CM and FC for review/approval. After approval, the FC then forward to Archaeology Teams, LM/FLR, and CCP.

4.2 Communication to/from Community Consultation Personnel

All communications to the Community Consultation Personnel (CCP) are to be performed by the CRO.

Any communication from the Communities not related to the Daily Logistics and received by someone other than the CRO is to be responded to with the statement “Your communication has been received and has been forwarded to the CRO for response.” The CRO is to be copied on the response.

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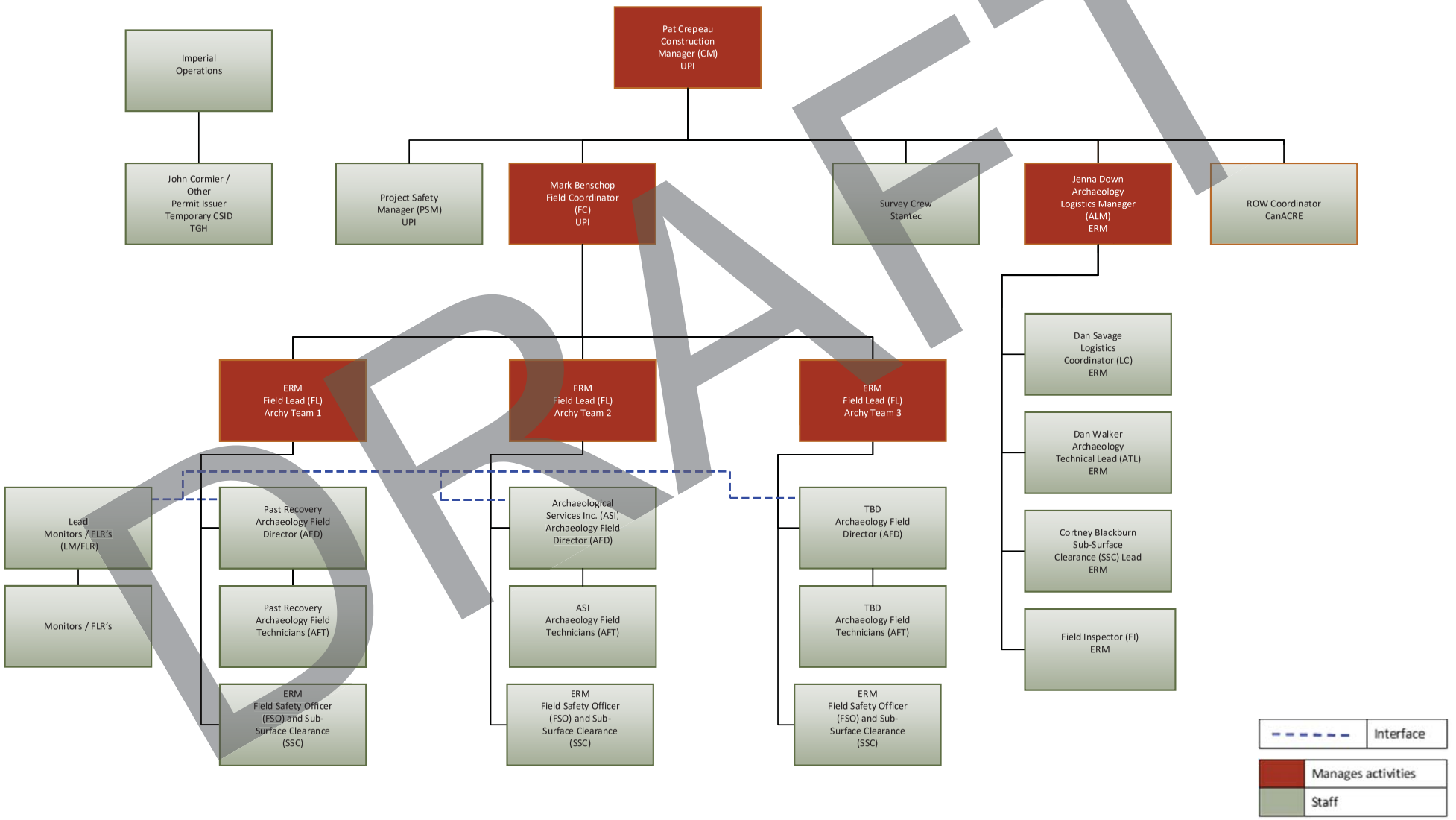
ROC3523d Attachment - Organization Chart (4 pages)

Imperial Oil
Waterdown to Finch Project
Organizational Chart

Overall Field Team



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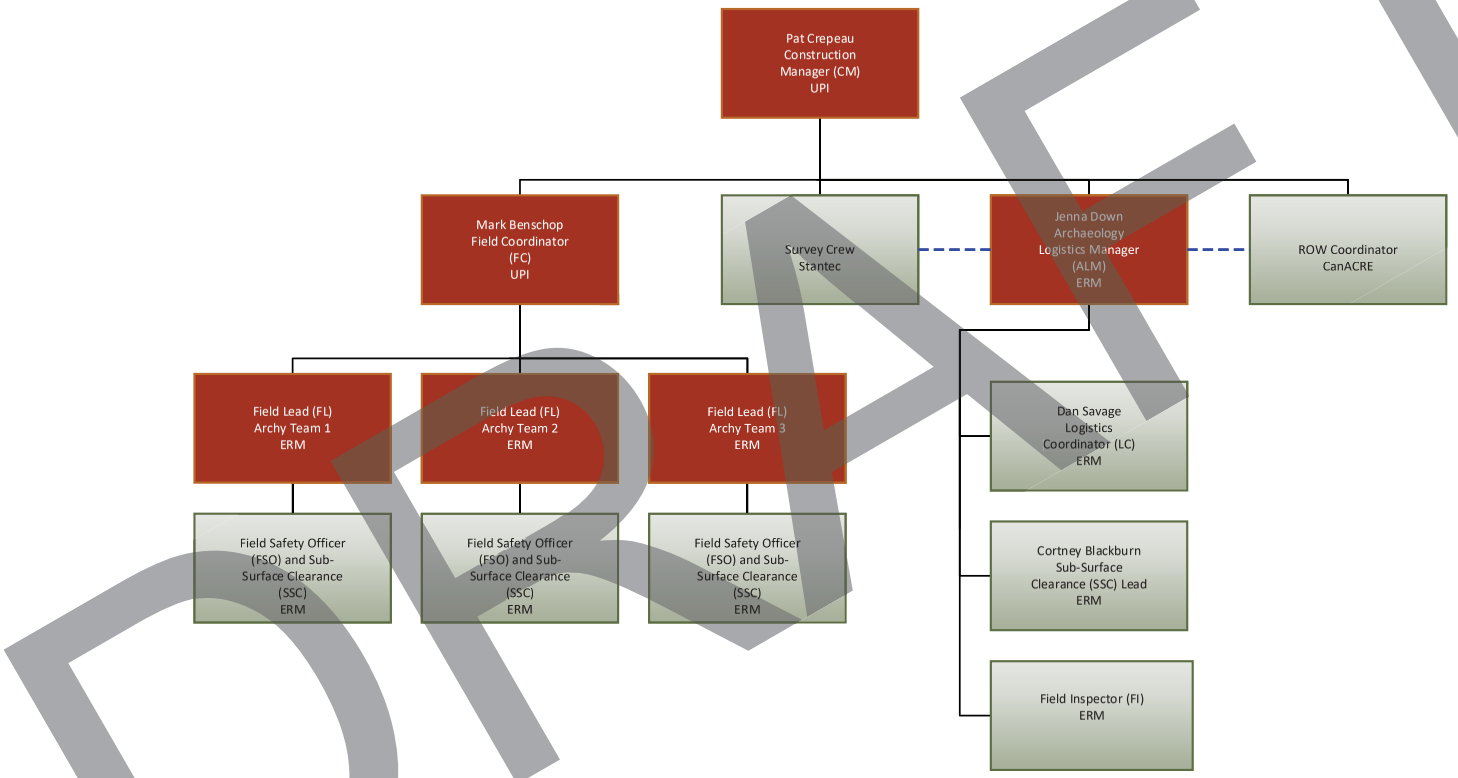
Imperial Oil
Waterdown to Finch Project
Organizational Chart

Field Logistics Team



DRAFT

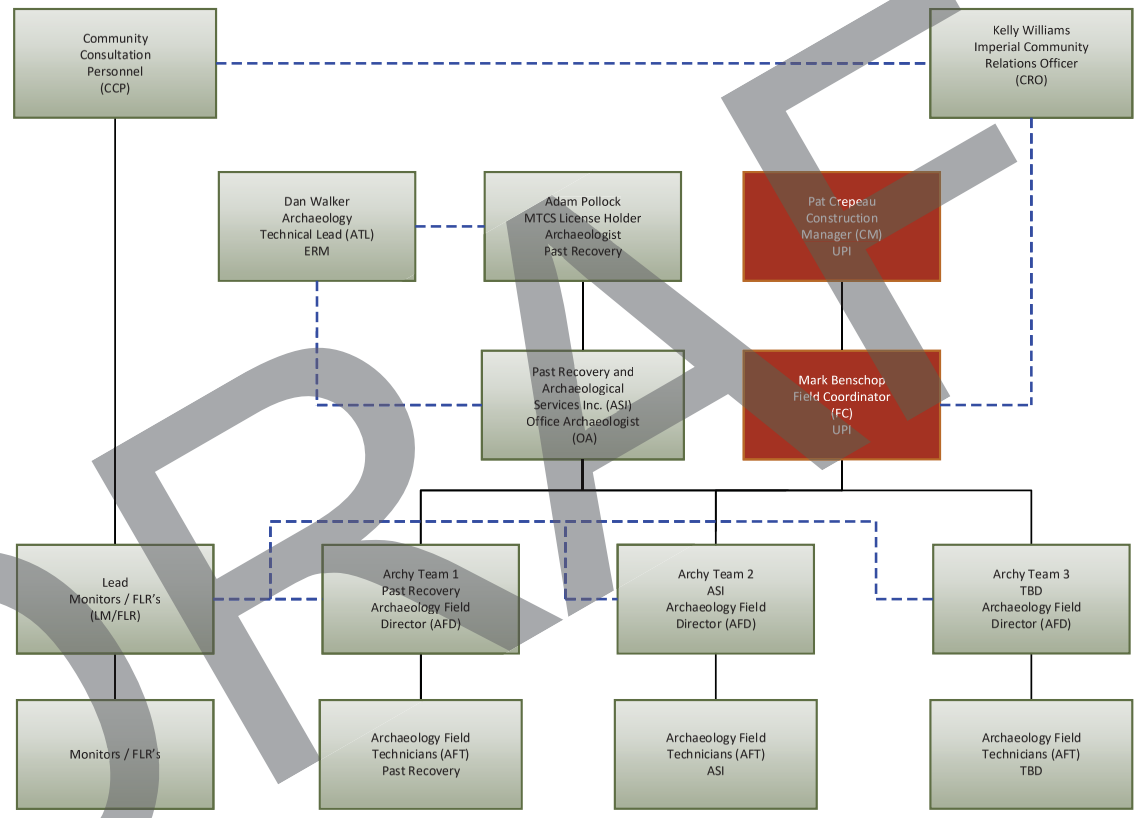
Interface

Manages activities

Staff

Imperial Oil
Waterdown to Finch Project
Organizational Chart

Archaeological Team



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Interface

Manages activities

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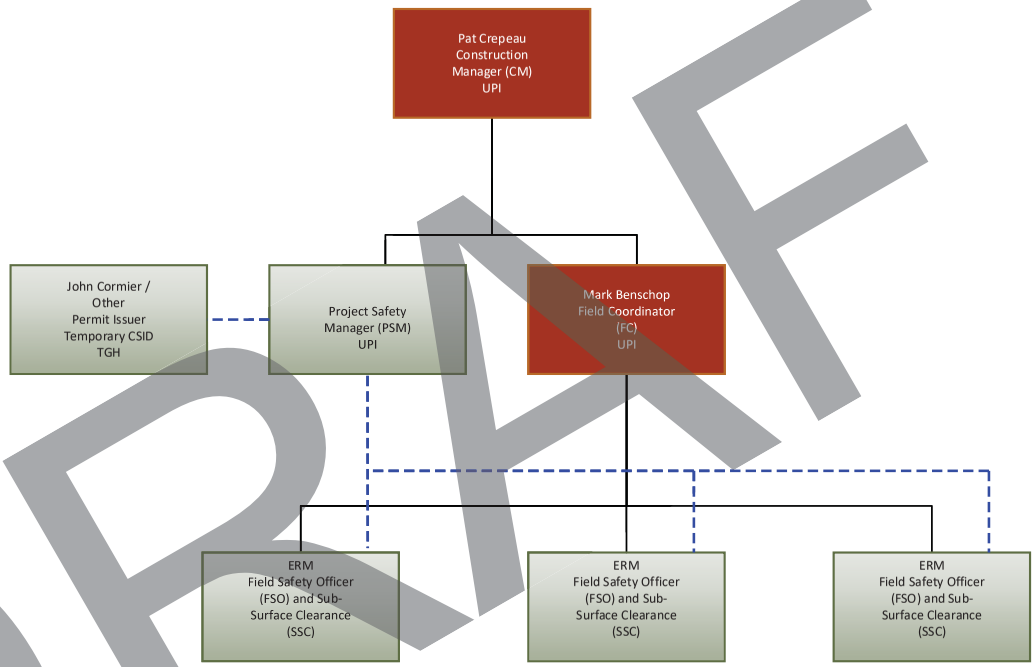
Organizational Chart

Field Safety Team



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Interface

Manages activities

Staff

ROC3577 (3 pages)

Imperial Waterdown to Finch Pipeline Replacement Project September 24, 2019 1:00pm	
Participants	
Six Nations • Joanne Thomas, Consultation and Archaeology Supervisor • Lonny Bomberry, Director Lands, Resources • Waylon Bomberry – Director Wildlife Resources • Rose Miller - Monitoring Program Coordinator • Donna LaForme – Office Administrator	*Imperial* • Kelly Williams, Community Relations Officer • Ryan Klue, Project Manager of Execution • Patrick Crepeau, Construction Manager, UPI • Mark Benschop, Environmental Coordinator, UPI • Breanna Murillo, Socioeconomic Advisor (phone) • Jake Huzel, Indigenous Business Development Advisor (phone)

Objective(s)	
• To discuss Project updates	
Topic	

Stage 2 archaeology program logistics	• Lead monitor having to go to other sites is an issue for Six Nations because need additional monitors and do not have that capacity; Six Nations monitors bring issues to their community office before they bring it up in the field
	  ○ Generally have two crews and two monitors from Six Nations, so lead monitor role not necessary and will proceed based on Six Nations process
	  ○ Imperial recognizes these limitations and will ensure that Six Nation monitors on either site is informed.
	• WatFin Issue re: email communication – Six Nations was not receiving Mark's emails, but this has been resolved
	• WatFin Issue re: Six Nations monitor understands the humidex policy for stopping work is 43 degrees – ***UPI to follow-up with monitors and clarify with monitors that the humidex policy for stopping work is 42 degrees and clarify the procedures with both crews in the field if necessary.***
	• Integrity Dig Issue re: Past Recovery WatFin find and Wood Dig 105 meeting with Wood (Cara), Six Nations and one other monitor.
	  ○ Integrity Dig Issue re: Clarification of conversation regarding artifact handling and identification.
	• ***WAT-FIN Project Team to follow-up re: June 7 site with medical waste and get back to Six Nations***
	• ***WAT-FIN Project Team was requested to provide a better graphical representation of progress on the Stage 2 Archaeology and a process for updating. Six Nations noted that they have the ability to plot maps and digital files would be suitable.***
	  ○ ***WAT-FIN Project Team will provide link to GIS mapping that is currently being tested by ERM, USB and hard copy of mapping to Six Nations when available***

Stage 2 reporting	• *Six Nations to confirm with WAT-FIN Project Team how they would like to receive the Stage 2 reporting, i.e., one larger report at the end of the program or smaller reports periodically*
Stage 3 planning	• *Six Nations to confirm with Imperial how they would like to be engaged re: Stage 3* • Six Nations was informed that Timmins Martell will likely be the Stage 3 consultant.
Emergency response	• *Six Nations to provide input on if, in what situations and how the community wants to be notified in the event of an incident or emergency for existing operations and during construction for the WatFin Project*
Project business opportunities	• Imperial would like to know more about Six Nations businesses • Imperial was provided with copies of the Six Nations business directory and requested a digital version, if possible • *Imperial to contact the Six Nations development corporation re: business and employment opportunities discussion*
Construction engagement	• Six Nations focuses on archaeology monitoring during construction (not on environmental) • Six Nations lays off monitors in winter (second week of December through spring), so if winter construction, Imperial would need to hire monitors directly • *Imperial to communicate areas of potential sensitivity to Six Nations for them to identify interest in participating, i.e., areas where matting will be laid, Lake Medad, Stage 3 areas etc. for construction*
Project concerns	• No additional concerns identified
Other	• Waterdown Terminal Project – Imperial confirmed that Parker Dickson from Stantec would be managing the archaeology assessments for the potential project at the Waterdown terminal. Six Nations has been invited to deploy a monitor if they wish. Dawn LaForme to follow up with agreement execution.

Follow-ups

Item #	Follow-up	Responsible	Status
1	*UPI to follow-up with monitors and clarify with monitors that the humidex policy for stopping work is 42 degrees and get back to Six Nations communicate the correct procedure to all field personnel.*	Mark	In progress
2	*WAT-FIN Project Team to follow-up re: June 7 site with medical waste and get back to Six Nations*	NA	Complete
3	*WAT-FIN Project Team was requested to provide a better graphical representation of progress on the Stage 2 Archaeology and a process for updating. Six Nations noted that they have the ability to plot maps and digital files would be suitable.*	Kelly	In progress
4	*WAT-FIN Project Team will provide link to GIS mapping that is currently being tested by ERM, USB and hard copy of mapping to Six Nations when available*	Kelly	In progress

5	*Six Nations to confirm with WAT-FIN Project Team how they would like to receive the Stage 2 reporting, i.e., one larger report at the end of the program or smaller reports periodically*	Joanne	In progress
6	*Six Nations to confirm with Imperial how they would like to be engaged re: Stage 3*	Joanne	In progress
7	*Six Nations to provide input on if, in what situations and how the community wants to be notified in the event of an incident or emergency for existing operations and during construction for the WatFin Project*	Joanne	In progress
8	*Imperial to contact the Six Nations development corporation re: business and employment opportunities discussion*	Jake	In progress
9	*Imperial to communicate areas of potential sensitivity to Six Nations for them to identify interest in participating, i.e., areas where matting will be laid, Lake Medad, Stage 3 areas etc. for construction*	Kelly/Ryan	In progress

ROC3589a

McArthur, Cheryl

From: Williams, Kelly /C <kelly.williams@esso.ca>
Sent: November 15, 2019 12:09 PM
To: Projectmail - Wood E&I Calgary - Consultation
Subject: FW: Waterdown-Finch Project-Imperial-Documents
Attachments: E.1_WFP_UPI_Chance_Find_Procedure .pdf; E.1_WFP_UPI_Spill_Plan.pdf; SPPL Emergency Response Plan_DRAFT.PDF

From: Williams, Kelly /C
Sent: Friday, November 15, 2019 2:05 PM
To: Joanne Thomas <jthomas@sixnations.ca>
Cc: 'Rose Miller' <rm1.miller@hotmail.com>; Dawn LaForme <dlaforme@sixnations.ca>; 'Lonny Bomberry' <lonnybomberry@sixnations.ca>; Murillo, Breanna K /C <breanna.k.murillo@exxonmobil.com>
Subject: Waterdown-Finch Project-Imperial-Documents

Good afternoon Joanne,

I hope you and your staff are safe after the early winter weather blast this past week. As discussed in our previous meetings, Imperial committed to providing these documents for review and comment. If Six Nations has designated a contact for incident notification, please forward to me at your convenience and I will ensure that that it is added to the documents. The documents attached:

Emergency Response Plan for the Sarnia Products Pipeline: Notification and engagement of Six Nations of the Grand in the event of an incident has been added to these documents. Note that the document is made up of two components.

- *Specific Contingency Plan (pages 1-7):* This section outlines the initial steps taken in the event of an incident. Please see page 3 (highlighted in blue) for the proposed addition. This document is the trigger for notification of Six Nations for an incident and would also initiate the process for a liaison from Six Nations to participate in the Incident Command System.
- *Asset-Specific Tactical Plans (pages 8-84)*: This section outlines specific tactical plans for sensitive areas along the pipeline. For each tactical plan, the required notifications are listed. Please see page 12 (highlighted in blue) for the proposed addition. Note that we have shown an update to only one tactical plan for initial review, but this addition will be made for each tactical plan (there are 22 in this document) once contact information is confirmed.

Chance Find Procedure and Spill Prevention and Response Plan: These documents are in initial draft format and will continue to be developed in collaboration with the construction contractor once selected, as they are intended to be implemented in the field during construction work.

If you have any questions, please contact me.

Best regards,

kelly

Kelly Williams
Community Relations Officer Waterdown-Finch Project
Imperial
E kelly.williams@esso.ca
C 519.328.8681

ROC3589b Attachment - Chance Find Protocol (9 pages)
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Waterdown to Finch Project

Chance Find Heritage Resources Contingency Plan

EM Document No.:
ONT-WF-SPPL-UP-RP-0009

UPI Doc Number:
24255-598-3RT-10016

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ACRONYMS AND ABBREVIATIONS

Chance Find Plan	Chance Find Heritage Resources Contingency Plan
EI	Environmental Inspector
EPC	Engineering, Procurement and Construction Management
IO	Infrastructure Ontario
MTCS	Ministry of Tourism, Culture and Sports
ROM	Royal Ontario Museum
TRCA	Toronto Region and Conservation Authority

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1. OVERVIEW AND PURPOSE

As part of the Waterdown to Finch Environmental Protection Plan (EPP), the Chance Find Heritage Resources Contingency Plan ("Chance Find Plan") has been developed to provide Imperial Oil Limited (Imperial) and its Contractor(s) with the appropriate response guidelines and procedures in the event unidentified heritage resources and sites are encountered during construction activities. Imperial has completed a number of environmental studies, including a comprehensive Stage 2 Archaeological Assessment of the Workspace, in preparation for development of this Project. Nevertheless, even thorough investigations do not fully remove the potential for impacts on as-yet unknown Heritage sites, including pre- and post-contact archaeological sites and paleontological sites. Therefore, though the potential for unknown Heritage Resources is low, the Chance Find Plan aims to avoid and/or reduce Project risks that may result due to such chance finds, and to ensure protection of heritage resources and sites. Examples of cultural heritage sites and paleontological resources include but are not limited to the following:

- Prehistoric artifacts such as projectile points/arrowheads, pottery sherds, shell, stone tools, cooked or modified animal bone, or chipped stone.
- Historic artifacts such as pottery sherds, window or bottle glass, nails, bricks and mortar, or cut stone.
- A cluster or concentration of prehistoric or historic artifacts.
- Features such as soil stains, trash pits, fire pits/hearths, post molds, earthen mounds.
- Architectural remains such as stone, brick, or concrete foundations, piers, concrete slabs, or other structural remains.
- Body fossils (fossilized remains of ancient organisms) and trace fossils (impressions made on a substrate by ancient organisms).

The Chance Find Plan will be implemented in the case of unanticipated discoveries of archaeological or paleontological sites during construction and will be implemented in conjunction with regulators and Indigenous communities. This document includes the regulatory framework and general guidelines for the protection of these resources and sites.

2. REGULATORY CRITERIA

Under the *Ontario Heritage Act* RSO 1990 c O.18 *Environmental Assessment Act*, or through the Class Environmental Assessment process lands require archaeological assessment in compliance with the 2011 Standards and Guidelines for Consultant Archaeologists (Ontario Ministry of Tourism, Culture and Sports ["MTCS"] 2011). Consideration must be made for the interests of other stakeholder groups and regulatory agencies where relevant, including the Toronto and Region Conservation Authority (TRCA), Infrastructure Ontario (IO), municipal by-laws, and Indigenous communities in accordance with the 2011 Draft Technical Bulletin: Engaging Aboriginal Communities in Archaeology (Ontario MTCS 2011).

3. ROLES AND RESPONSIBILITIES

3.1 Proponent

Imperial is the owner of the Project and aside from external regulatory reporting, will delegate the implementation of this Chance Find Procedure to the Engineering, Procurement and Construction Contractor ("EPC").

Imperial is responsible for all regulatory and external reporting associated with the Chance Find Procedure and in accordance with permits and authorizations.

3.2 Engineering, Procurement and Construction Contractor

The EPC is responsible for the development, design and supervision of the implementation of the Chance Find Plan. EPC responsibilities include:

- Leading the development of the Chance Find Plan.
- Selecting and designing Chance Find measures that are best suited for the site-specific environmental and heritage conditions.
- Reviewing and approving on-site design modifications.
- Developing and implementing contingency plans for addressing Chance Find controls that are not effectively or successfully implemented.
- Oversee inspection of Chance Find controls.

3.3 Contractor

The EPC will assign a construction Contractor who is responsible for following the Chance Find Plan activities and mitigation measures including:

- Installing the Chance Find Plan measures according to specifications.
- Inspecting, monitoring, and maintaining Chance Find Plan measures.
- Following chance find notifications and reporting requirements in accordance with specifications, permits, and authorizations.

3.4 Environmental Inspector

The EPC will assign an Environmental Inspector (“EI”) who will be responsible for inspection and monitoring of the activities and mitigation measures outlined in the Chance Find Plan.

- Understanding the Chance Find Plan and its implementation.
- Monitoring compliance with the provisions of the Chance Find Plan.
- Implementing contingency measures if the prescribed Chance Find Plans are not effective.
- Documenting all site inspections and corrective actions.

3.5 Project Archaeologist

Imperial will designate a Project Archaeologist that will oversee and provide technical direction for archaeology of the Project, including the implementation of the Chance Find Plan.

3.6 Employees and On-site Personnel

In addition to the EI and Project Archaeologist, employees and on-site personnel/contractors will receive site orientation and training, developed by the Project Archaeologist in consultation with the EPC, regarding compliance with the Project’s Chance Find Plan. All new employees will receive site orientation and training during their induction and the training will focus on the procedure in place for responding to newly identified sites and how to report these sites or observed site impacts. Training records will be kept and maintained. Copies of the Project’s Chance Find Plan will be kept on-site for reference and on file by Imperial.

4. PLANNING AND PREVENTION

Heritage assessments undertaken prior to construction are designed to identify and mitigate effects to Heritage Resources. However, even the most thorough investigations may not identify all Heritage Resources that may be impacted during project development. Therefore, though the potential for unknown Heritage Resources is low, the Chance Find Plan is designed to mitigate impacts to any additional cultural heritage sites that were not identified prior to construction. For purposes of the Chance Find Plan, cultural heritage sites include human remains interred by any means, as well as archaeological materials such as prehistoric or historic objects (artifacts), features, structural remains, and landscape modifications. Paleontological resources are the fossilized remains of plants and animals.

The following procedures will be implemented for the Project if unanticipated discoveries of archaeological or paleontological materials occur in the course of construction activities (Figure 4-1; Table 4-1).

Table 4-1: Chance Find Procedures

Activity / Feature	Procedure
Chance finds	If personnel suspect they have discovered archaeological materials, or paleontological materials they are to: 1. Stop any earthwork or construction activities, including movement of equipment, within 50 m of the find. 2. Leave the material in place and mark the area around the site using a 50 m buffer zone. 3. Contractor report the discovery to the EI immediately. 4. EI will contact the Project Archaeologist immediately. 5. The Project Archaeologist or designate will assess the find and If the find is determined to have cultural heritage value or interest (CHVI): a. the EI and Project Archaeologist will inform the MTCS and local Indigenous communities of the find. b. the Project Archaeologist and EI, in consultation with the MTCS and local Indigenous communities, will develop a mitigation plan in accordance with the 2011 Standards and Guidelines. c. Once the mitigation plan has been completed and approval is received from MTCS and indigenous communities work can continue. 6. If the find is determined not to have CHVI construction can continue.
Human remains	If human remains are found the Standards and Guidelines state that “The *Cemeteries Act*, R.S.O. 1990 c. C4 and the *Funeral, Burial, and Cremation Services Act* 2002, S.O. 2002, C.33 (when proclaimed in force) require anyone who uncovers a burial site containing human remains to cease fieldwork or construction activities and report the discovery to the appropriate authorities (police or coroner).” In a case where suspected human remains or unmarked burial are encountered the following steps will be taken:

Activity / Feature	Procedure
	1. Stop any earthwork or construction activities, including movement of equipment, within 50 m of the find. 2. Leave the material in place, mark and secure the area (50 m buffer zone) and assign personnel to monitor the area and prevent any unauthorized access. 3. Contractor report the discovery to the EI immediately. 4. EI will immediately contact the Project Archaeologist and the appropriate authorities (police). 5. Following confirmation that the remains are human: a. The police to manage the site if deemed criminal. b. The Project Archaeologist to manage the site if deemed non-criminal (e.g., unmarked grave of Euro-Canadian or Indigenous affiliation). 6. If deemed criminal, resume work in the area only upon completion of the site-specific mitigation plan and following clearances granted from the appropriate regulatory agencies (police). 7. If deemed non-criminal: a. the EI and Project Archaeologist will inform the MTCS and local Indigenous communities of the find. b. the Project Archaeologist and EI, in consultation with the MTCS and local Indigenous communities, will develop a mitigation plan. c. once the mitigation plan has been completed and approval is received from MTCS and indigenous communities work can continue. 8. If the site is deemed to be faunal (animal) remains, continue the assessment with no additional engagement from authorities.
Paleontological materials	In a case where suspected paleontological materials are encountered the following steps in addition to the steps above are to be taken: 1. Secure the area (50m buffer zone) and assign personnel to monitor the area and prevent unauthorized access. 2. The Project Archaeologist to report the discovery to the appropriate authorities (Royal Ontario Museum [“ROM”], Local Paleontological Society). 3. The Project Archaeologist or designate to prepare and implement a site-specific mitigation plan.

5. REFERENCES

Cemeteries Act, R.S.O. 1990 c. C4

Funeral, Burial, and Cremation Services Act, 2002. S.O. 2002, C.33

Ontario Ministry of Tourism and Culture, 2011. *Engaging Aboriginal Communities in Archaeology: A Draft Technical Bulletin for Consultant Archaeologists in Ontario.* Queen's Printer for Ontario: Toronto.

Ontario Ministry of Tourism and Culture, 2011. *Standards and Guidelines for Consultant Archaeologists*. Queen's Printer for Ontario: Toronto.

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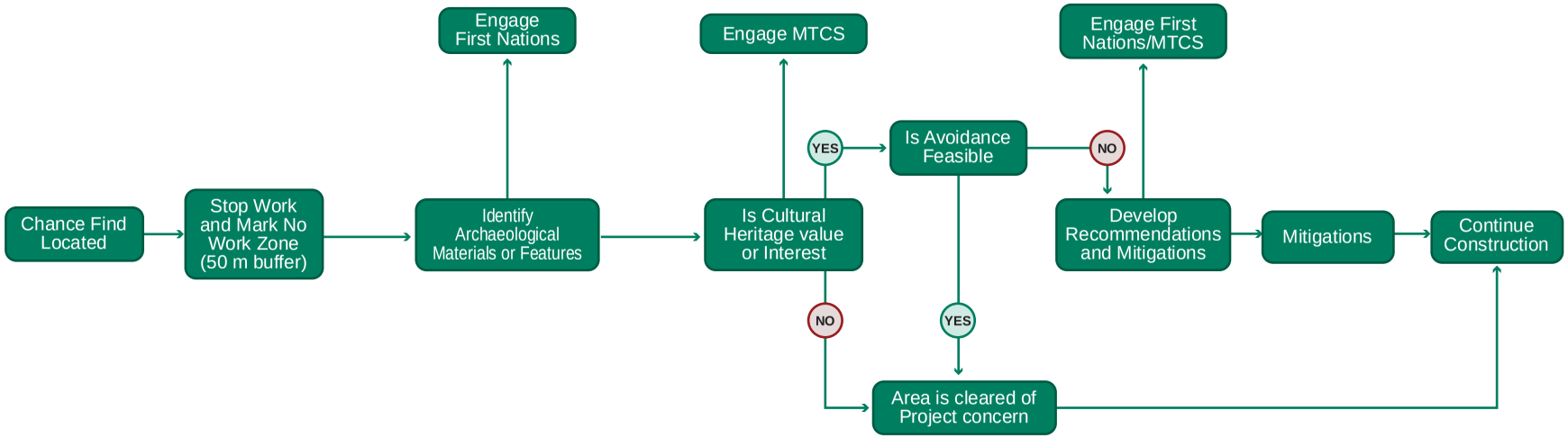

Figure 4-1: Chance Find Workflow

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ROC3589c Attachment - Spill Prevention and Response Plan (15 pages)

Waterdown to Finch Project

Spill Prevention and Response Plan

EM Document No.:
ONT-WF-SPPL-UP-RP-0006

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ACRONYMS AND ABBREVIATIONS

CEPA	*Canadian Environmental Protection Act*
EI	Environmental Inspector
EPA	Ontario *Environmental Protection Act*
EPP	Environmental Protection Plan
EPC	Engineering, Procurement and Construction Management Contractor
MECP	Ministry of Environment, Conservation and Parks
NFPA	National Fire Protection Association
HDB	Horizontal directional boring
HDD	Horizontal directional drilling
QP	Qualified Person
SAC	Spills Action Centre
SPPL	Sarnia products pipeline
UFC	Unified Facilities Criteria
UPI	Universal Pegasus International

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1. OVERVIEW AND PURPOSE

As part of the Waterdown to Finch Project Environmental Protection Plan ("EPP"), this Spill Prevention and Response Plan has been developed to provide best practices for the Contractor to implement during and construction activities. It provides guidance on spill prevention, contingency planning, and reporting practices for the timely and effective prevention and response to potential inadvertent, construction-related releases to land and surface water. This Spill Prevention and Response Plan delineates provisions for the inadvertent release of both non-hazardous and potentially hazardous material (e.g., certain lubricating oils, drilling wastes).

The guidelines included in this Spill Prevention and Response Plan will be followed to reduce the potential for a spill to land or surface water and thereby protect terrestrial, groundwater and surface water resources. Performance objectives for the management of potential substance release have been included in this Spill Prevention and Response Plan that consider the Project's risks and compliance obligations, including:

- Planning and prevention - preventing the inadvertent release of materials that may have a deleterious effect on the terrestrial and aquatic environments;
- Spill management - responding with appropriate measures in a timely manner to an inadvertent release; and
- Spill notification and reporting - providing timely notifications and reports to key project personnel and regulatory agents.

All employees, contractors and consultants will abide by all federal, provincial and local requirements for disposal and release reporting requirements for all products and waste materials that are potentially hazardous to human health and the environment.

Once in operation, the pipeline will be included in Imperial's current operational plans and procedures for the SPPL and is not within the scope of this plan. This includes Imperial's Emergency Response Plan that will be implemented in response to the unlikely event of a pipeline leak during operation.

2. REGULATORY CRITERIA

The interception and cleanup of spills must comply with provisions in the *Environmental Protection Act*, R.S.O. 1990 ("EPA"), specifically regulation 224/07 which outlines regulation for Spill Prevention and Contingency Plans and regulation 675/98 and 225/07 which outline the Classification and Exemption of Spills and Reporting of Discharges. Under Ontario Reg. 675/98, in the event of an inadvertent spill, the Spills Action Centre ("SAC") must be notified in a timely manner.

The Contaminated Materials and Management and Handling Plan will be implemented according to the requirements of the Ministry of Environment, Conservation and Parks ("MECP").

3. ROLES AND RESPONSIBILITIES

3.1 Proponent

Imperial Oil Limited is the owner of the Project and aside from external regulatory reporting, will delegate the implementation of this Spill Prevention and Response Plan to the Engineering, Procurement and Construction Contractor ("EPC").

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Imperial is responsible for all regulatory and external reporting associated with the Spill Prevention and Response plan and in accordance with permits and authorizations.

3.2 Engineering, Procurement and Construction Contractor

The EPC is responsible for the development, design and supervision of the implementation of the construction Spill Prevention and Response Plan, including:

- Leading the development of the Spill Prevention and Response Plan.
- Selecting and designing Spill Prevention and Response measures that are best suited for the site-specific environmental conditions.
- Reviewing and approving on-site design modifications.
- Developing and implementing contingency plans for addressing Spill Prevention and Response controls that are not effectively or successfully implemented.
- Overseeing inspection of Spill Prevention and Response controls.

3.3 Authorized Personnel

The Contractor will assign Authorized Personnel who will be designated to handle fuel, lubricants or other regulated substances. Authorized personnel will be familiar with the requirements of the Spill Prevention and Response Plan.

3.4 Contractor

The EPC will assign a construction Contractor who is responsible for following the Spill Prevention and Response Plan including:

- Installing the Spill Prevention and Response Plan measures according to specifications.
- Inspecting, monitoring, and maintaining Spill Prevention and Response Plan measures.
- Personnel shall notify the crew foreman or Environmental Inspector immediately of any spill of a petroleum product or hazardous liquid, regardless of volume.
- Following spill prevention, notifications and reporting to Imperial.

3.5 Environmental Inspector

The EPC will assign an Environmental Inspector (“EI”) who will be responsible for inspection and monitoring of the activities and mitigation measures outlined in the Spill Prevention and Response Plan including:

- Understanding the Spill Prevention and Response Plan and its implementation.
- Inspecting Spill Prevention and Response measures on a regular basis and after rainfall/snowmelt events.
- Monitoring compliance with the provisions of the Spill Prevention and Response Plan.
- Implementing contingency measures if the prescribed Spill Prevention and Response Plans are not effective.
- Confirm appropriate agency notifications are made (notification to be completed by Imperial), spill resources are allocated, and clean-up is accomplished in accordance with applicable agency requirements.
- Documenting all site inspections and corrective actions.

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3.6 Subcontractor(s)

If the Contractor or EI determines that a spill is beyond the scope of on-site equipment and personnel, the Contractor will assign an emergency response Subcontractor to contain and/or clean up the spill.

The Contractor or Subcontractor will retain a Qualified Person ("QP"), as defined in Ontario Regulation 153/04 (as amended) and licensed to practice in the Province of Ontario, to review, direct and manage all activities related to soil management (contaminated, non-contaminated, excess soil etc.) and soil importation activities during the construction activities of the Project.

The Subcontractor will assist the Contractor and EI to monitor containment procedures to ensure that the actions are consistent with the requirements of this Spill Prevention and Response Plan.

4. PLANNING AND PREVENTION

This section summarizes minimum standards for handling and storing regulated substances and cleaning up spills. Potential sources of construction-related spills include machinery and equipment failure, fuel handling, transfer accidents and storage tank leaks. The Contractor will be responsible for implementing, at a minimum, the following planning and prevention measures (Table 4-1).

Table 4-1: Spill Planning and Prevention Measures

Activity/ Feature	General Spill Prevention Measures
Training	1. Train Contractors and all involved on-site staff on the Spill Prevention and Response Plan, implementation, prevention, use of emergency kit and reporting for both hazardous materials and spill response. 2. Include specific instructions regarding applicable notifications and appropriate response actions to be taken in the event of a release in on-site staff training. 3. Contractor employees will be briefed on procedures to respond to a pipeline spill (e.g. damage to a third party adjacent in-service pipeline) during mandatory safety and environment training to be provided by the EPC.
Planning	4. Temporary workspaces to be assessed prior to use to identify suitable locations for long term vehicle parking, refueling stations, and areas for mechanical work and signage provided to illustrate where these activities are to take place. 5. Spill prevention equipment (spill kits, drip pans, etc.) to be strategically located at each site.
Spill kits and materials	6. Maintain spill kits to contain a sufficient quantity of absorbent and barrier materials to adequately contain and recover foreseeable spills. These kits may include, but are not limited to absorbent pads, straw bales, absorbent clay, sawdust, floor-drying agents, spill containment barriers, plastic sheeting, skimmer pumps, and holding tanks. This equipment will be located near fuel storage areas and other locations as necessary to be readily available. 7. Maintain, clearly label and have easily visible the appropriate release containment (spill kits) and recovery equipment and materials at all work sites. 8. Contractor to train all staff with the locations of the spill control equipment and materials and have readily accessible during construction activity. 9. Carry materials adequate to control foreseeable spills in all fueling vehicles, and where necessary, service vehicles. Such material may include but not be limited to absorbent pads, commercial absorbent material, plastic bags with ties, and shovels.

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Activity/ Feature	General Spill Prevention Measures
Transport, Storage and Handling of Fuels/ Hazardous Liquids	10. Only employ Authorized Personnel to transport, store, and handle fuels / hazardous liquids. 11. Travel of fuel trucks transporting fuel to on-site construction equipment occur only on access roads approved by the EI. 12. Maintain all equipment in proper running order to prevent leaking or spilling of potentially hazardous or toxic products. This includes hydraulic fluid, diesel, gasoline and other petroleum products. 13. Store all hazardous materials, chemicals, fuels and lubricating oils more than 30 m from any wetlands, streams and waterbodies. 14. Do not park equipment overnight (including but not limited to light plants, generators, pumps, and machinery) within 30 m of a wetland or waterbody unless secondary containment provisions have been implemented and approved by the EI in advance. 15. Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water (e.g., at a distance of greater than 30 m from top of bank). 16. Store fuel in contractor yards only or as approved by the EI. 17. Equip all fuel nozzles with functional automatic shut-offs 18. Maintain signage at and adjacent to fuel storage areas indicating “Fuel Storage Area – No smoking within 15 meters.” 19. Maintain fire extinguishers in suitable locations according to regulatory requirements and specifications. 20. Keep tools and materials on-site to stop leaks. Such equipment may include, but not be limited to, plugs of various sizes, 3M tank patches, a hammer, assorted sizes of metal screws with rubber washers, a screwdriver, and plastic tape. 21. Store fuels, lubricants, waste oil, and any other regulated substances in aboveground tanks only. 22. Conform to all applicable industry codes for storage tanks and containers (e.g., Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations under the *Canadian Environmental Protection Act* [“CEPA”]). 23. Utilize a suitable secondary containment structure at each fuel storage site. Line these structures with suitable plastic sheeting; provide a minimum containment volume equal to 150 percent of the volume of the largest storage vessel. 24. Do not have drains in the secondary containment areas. Precipitation may be drawn off as necessary. Discharge any accumulated water if no spillage has occurred in the secondary containment structure. Pump any accumulated waste into drum storage for disposal if spillage has occurred in the structure. 25. Make all efforts to dispense fuel during the daylight hours. 26. Station personnel at both ends of the hose during fueling unless both ends are visible and are readily accessible by one person.
Directional Drilling/ Boring	27. Implement Inadvertent Returns during HDD Plan that includes measures to stop work, contain the drilling fluid/mud and prevent its further migration into the watercourse, and notify all applicable authorities. Prioritize clean-up activities relative to the risk of potential harm and dispose of drilling mud in a manner that prevents re-entry into the watercourse. Do not implement clean-up measures that result in greater damage to the banks and watercourse than from leaving the drilling mud in place.

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Activity/ Feature	General Spill Prevention Measures
Watercourses/ Wetlands	28. Contractor to store hazardous materials, chemicals, fuel and lubricating oils, and perform refuelling, maintenance, and lubricating activities more than 30 m from wetlands, streams, and waterbodies (including drainage ditches), and water supply wells. 29. While the setback for refueling, storage, and maintenance near wetlands and waterbodies is compulsory 30 m it may be unavoidable in certain instances due to site specific conditions or unique construction requirements (e.g., continuously operating pumps or equipment on barges). If this activity occurs within wetlands or near streams for refueling of continuously operating pumps, use secondary containment for these unique requirements. 30. Line secondary containment structures with suitable plastic sheeting, provide a containment volume of at least 150 percent of the storage vessel, and allow for at least one foot of freeboard. 31. Provide adequate lighting for these locations and activities.
Inspection and Monitoring	32. EI to monitor the Contractor's compliance with the Spill Prevention and Response Plan. 33. Notify the appropriate Spill Coordinator if an accidental spill arises, regardless of the size. 34. Notify key project personnel and regulatory agencies, per the Spill Notification and Reporting Procedures described in Table 3.

5. SPILL MANAGEMENT

The following response and management procedures will be followed immediately upon learning of any fuel, oil, hazardous material, sediment release, drilling mud or other regulated substance spill, or upon learning of conditions that will lead to an imminent spill (Table 5-1). Spills are defined as the release of a pollutant into the natural environment, from or out of a structure, vehicle or other container that is abnormal in quality or quantity in light of all of the circumstances.

Table 5-1: Spill Response and Management Procedures

Activity/ Feature	General Response and Management Measures
Immediate Spill Response	1. When a spill has occurred, the Contractor will immediately: a. Assess the safety hazards of the situation and remove sources of ignition, if safe to do so. b. Identify the product, stop the source and physically contain the spill as soon as safe to do so. c. Engage emergency services if required. d. Notify Imperial Oil Limited and the EI of the incident. e. Mobilize on-site personnel, equipment, and materials for containment and/or cleanup commensurate with the extent of the spill. f. Engage and assist the Emergency Response Subcontractor as needed and monitor containment procedures to ensure that the actions are consistent with the requirements of this Spill Prevention and Response Plan. g. Coordinate with Imperial to determine the need to evacuate spill sites to safeguard human health; and h. Delineate the release and containment area to avoid further disturbance in the area. 2. EI will complete the Spill Report Form (Appendix A) 3. Imperial Oil Limited will notify the applicable stakeholders

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Activity/ Feature	General Response and Management Measures
Spill Response – Fuel Truck	In addition to the Immediate Spill Response above, the Contractor will: 4. Pump the tanker dry (into appropriate containers or another tanker). 5. Remove the tanker from the site. 6. Recover the spilled product. 7. Clean-up the contaminated area with absorbent materials. 8. Dispose of sorbent pads, heavily contaminated soil and vegetation at an approved facility.
Spill Response - Adjacent to or into a Waterbody	In addition to the Immediate Spill Response above, the Contractor will: 9. Deploy booms, skimmers, sorbents, etc., if feasible, to contain and recover the spilled material from the waterbody. 10. Clean-up the contaminated area, including downstream shorelines. 11. Dispose of contaminated soil and vegetation at an approved facility.
Pipeline spill	12. Notify Imperial's Emergency Pipeline Control at 1-800-372-9597 (24-hours/day) as well as the Imperial Environmental Lead in the event of a suspected Imperial pipeline spill (or from an adjacent pipeline). Imperial Operations to implement the Operational Emergency Response Plan.
Cleanup, storage and disposal of contaminated materials	13. Determine clean-up options and appropriate methods to recover and dispose of potentially contaminated soil or vegetation at an approved facility. 14. Recover the released materials from the defined containment area using equipment suitable to the nature and extent of the release. 15. Cleanup the release and contaminated areas. Consultation with a qualified remediation specialist and/or Company Representative may be required. 16. Store and cover excavated soils on site with plastic sheeting in a bermed area to prevent and contain runoff if temporary storage is necessary. 17. Dispose of contaminated materials, and contaminated soils and vegetation at an approved facility in accordance with applicable provincial and federal regulations. 18. Use only licensed carriers to transport contaminated material from the site to a disposal facility. 19. For the storage and disposal of contaminated materials refer to the Waste Management Plan.

6. SPILL NOTIFICATION AND REPORTING

The following notification and reporting procedures will be taken immediately upon learning of any fuel, oil, hazardous material, sediment release, drilling mud or other regulated substance spill (Table 6-1).

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Table 6-1: Spill Notification and Reporting Procedures

Activity / Features	General Notification and Reporting Procedures
Internal notification	1. Contractor to notify Imperial and EI immediately of any spill of a petroleum product or hazardous liquid, regardless of volume. 2. Imperial to notify applicable stakeholders as required.
Internal reporting	3. Contractor to ensure all cleanup activities required by a jurisdictional agency are satisfactorily met and provide documentation to Imperial demonstrating this compliance. a. EI to complete a Spill Report Form (refer to Appendix A) within 24-hours of the occurrence of a spill, regardless of the size of the spill. Include a record of the report in the Project files per Ontario Regulation 675/98: b. Imperial to keep this record for two years after the spill for all Class V, VII, VIII, IX and XI spills. c. Imperial to keep this record for five years after the spill for all Class X (non-reportable) spills. 4. Contractor to complete any required follow up written reports, associated laboratory analysis, and other documentation as requested by the EI on a site specific basis.
External notifications	5. Imperial to report spills and discharges, per the Ontario EPA, to the MECP through the SAC at 1-800-268-6060. 6. Imperial to notify the appropriate federal, provincial and local agencies, Indigenous communities as well as additional parties or agencies. 7. Imperial to report the spill to the municipality in which the spill occurred. 8. Imperial to notify the landowner of the property on which the spill occurred. 9. All spills, regardless of volume, that enter directly or indirectly into a sanitary or storm sewer or rural ditch must be reported to the City of Hamilton, City of Toronto, City of Burlington, City of Mississauga, the Region of Halton, Region of Peel, Town of Milton and the Town of Oakville. Phone numbers for all stakeholders are in Appendix B. Exemptions for municipal notifications will be reviewed on a case by case basis.

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7. REFERENCES

Government of Ontario. 1990 (updated 2019). Environmental Protection Act, R.S.O 1990, c. E. 19 Available online at https://www.ontario.ca/laws/statute/90e19. Accessed May 2019.

OEB (Ontario Energy Board). 2016. *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario*. 7th Edition, 2016.

MOE (Ministry of Environment). 2007.Guideline for Implementing Spill Prevention and Contingency Plans Regulatory Requirements (O.Reg.224/07). Available at https://archive.org/details/std01079161.ome/page/n7. Accessed May 2019.

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APPENDIX A SPILL REPORT FORM

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Spill Report Form

(The Contractor must complete this for any spill, regardless of size, and submit the form to the Imperial Representative within 24 hours of the occurrence)

Date of Spill: _____ Date of Spill Discovery: _____

Time of Spill: _____ Time of Spill Discovery: _____

Name and Title of Discoverer: _____

Type of material spilled and manufacturer's name: _____

Legal Description of spill location to the quarter section: _____

Directions from nearest community: _____

Estimated volume of spill: _____

Estimated duration of the release of the pollutant: _____

Weather conditions: _____

Topography and surface conditions of spill site: _____

Spill medium (pavement, sandy soil, water, etc.): _____

Proximity of spill to surface waters: _____

Did the spill reach a waterbody? _____ Yes _____ No

If so, was a sheen present? _____ Yes _____ No

Describe the causes and circumstances resulting in the spill: _____

Describe the extent of observed contamination, both horizontal and vertical (i.e., spill-stained soil in a 5-foot radius to a depth of 1 inch): _____

_____

Describe immediate spill control and/or cleanup methods used and implementation schedule:

_____

_____

Describe the method used to dispose of the pollutant and any part of the environment that was affected by the spill: _____

Current status of cleanup actions: _____

Any adverse effects observed as a result of the spill: _____

Name and Company for the following:

Construction Superintendent: _____

Spill Coordinator: _____

Imperial Representative: _____

Person Who Reported the Spill: _____

Environmental Inspector: _____

Form completed by: _____ Date: _____

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APPENDIX B SPILL REPORTING CONTACTS

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Table B-1: Spill Reporting Contacts

Agency	Notification Period	24-hour Reporting Hotline	Regulation/Code	Comments
Provincial Contacts				
Ministry of Environment, Conservation and Parks via Spills Action Centre	Immediately	1-800-268-6060	Ontario Reg 2675/98	Will include Technical Standards and Safety Authority notification, if applicable.
Municipal Contacts				
City of Hamilton	Contractor to confirm	1-905-540-5188	Ontario Reg 2675/98	Spill Reporting Hotline
City of Toronto	Contractor to confirm	1-416-325-3000 311 (within Toronto)	Ontario Reg 2675/98	Spill Reporting Hotline
City of Burlington	Contractor to confirm	1-905-333-6166	Ontario Reg 2675/98	City of Burlington Roads, Parks and Forestry Department
City of Mississauga	Contractor to confirm	1-905-615-3000	Ontario Reg 2675/98	24 hour dispatch
Region of Peel	Contractor to confirm	1-905-791-7800	Ontario Reg 2675/98	Spill Response Hotline
Town of Milton	Contractor to confirm	1-905-878-7252 311 (within Milton)	Ontario Reg 2675/98	Town of Milton
Town of Oakville	Contractor to confirm	1-905-845-6601 311 (within Oakville)	Ontario Reg 2675/98	Town of Oakville
Indigenous Community Contacts				
Haudenosaunee Development Institute	TBD	TBD		Haudenosaunee Confederacy Chiefs Council
Huron-Wendat Nation	TBD	TBD		
Mississaugas of the Credit First Nation	TBD	TBD		
Six Nations of the Grand River	TBD	TBD		
Conservation Authority Contacts				
Toronto Region Conservation Authority	Contractor to confirm	1-416-661-6600		Toronto Region Conservation Authority
Hamilton Region Conservation Authority	Contractor to confirm	1-905-825-6000		Hamilton Region Conservation Authority
Halton Region Conservation Authority	Contractor to confirm	1-905-825-6000		Spill Response Hotline
Credit Valley Conservation Authority	Contractor to confirm	1-905-670-1615		Credit Valley Conservation Authority

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TITLE **Imperial Facility - Emergency Response Plan**
SECTION 08: Specific Contingency Plans
SUBJECT 15: Spill - Low Vapour Pressure 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 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.

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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.

Incident : _____ Facility: _____ Date : _____

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	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 all 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	Isolate the leaking pipeline section by ensuring the appropriate main valves are closed, if safe to do so.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	6	Assess the situation using the "Disciplined Approach": a) Evaluate the extent of the spill b) Determine the need to stop all/or other operations including shutting down other pipelines in the same corridor, if applicable. c) 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) d) Determine the need to call the Facility ER Team (ERP-09-04: Appendices: Facility Specific «Contacts Lists») e) Evaluate the need for Municipal ER support. If required, call local Police, Fire Services and Public Works (ERP-09-04) f) Notify First Nations so they are able to stand up representatives to attend to protection of critical sites and provide guidance to responders. (ERP-09-04 to be updated with regional First Nations contact information) g) Decide on the action plan. Get Support, if required and Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»).		
	7	Evaluate effectiveness of the safety perimeter, using air-monitoring equipment (Lower Explosion Limit), if applicable		
	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.		
	11	Call the local Police for traffic and safety perimeter control and the Fire Dept. Services for vapour dispersion or suppression and fire prevention, if spilled product migrated off the right of way or if otherwise warranted and not already done. See ERP-09-04		

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Continue following steps if the spill has migrated to public or third party premises. If not, go directly to step #17.

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	12	Establish a Unified Command structure with Public Authorities as per ERP-01-05, ERP-02-01 and ERP-04-02, if not already done.		
	13	Notify IOL Public Affairs (ERP-06-02: Emergency Response Contacts and Resources: Other Imperial Emergency Response Resources).		
	14	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; a) Did spill/leak go into any city sewer systems (sanitary, rainwater or sanitary)? b) 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») c) Are vapours present in nearby businesses/residences? d) Did the spilled material reach the water table? e) Any drinking water wells within 1 km of the spill source? f) What response resources do you have? g) Decide on the action plan.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	15	Did hydrocarbon go into a city sewer system? If yes: a) Contact City Public Works (ERP-09-04 or dial "0") b) Obtain sewer plot plan from the City Public Works c) Determine safety perimeters using monitoring device (i.e. like LEL meters) in co-operation with City Public Works d) Have installed appropriate number of chimneys or explosion-proof fans at street manholes to discharge the vapours e) Verify if gasoline vapours are present in nearby residences and if so, request Police /Fire Dept to evacuate those residents f) Identify / Ensure no sources of ignition g) Block sewers downstream. Recover product with a vacuum truck and have sewer systems flushed starting upstream. If distillate, use the same steps even though there are much lesser risks associated with this type of product.		
	16	Did petroleum product reach the water table? If yes: a) Provide alternate source of drinking water to affected residents b) Involve a company Environmental Specialist c) Determine the perimeter by taking water samples and getting them analyzed using the services of a professional firm d) Transfer the follow-up activities with help from the Imperial (CFO) Business Management involved.		
	17	Is hydrocarbon present in a ditch, stream or river? If yes: a) Remove all sources of ignition b) If crude, check for H_2S c) Disperse the vapours with water fog d) Ask the Fire Dept Services to spray a blanket of hydrocarbon compatible foam, if hydrocarbon trapped and is felt appropriate e) Recover product with a vacuum truck. If distillate: a) Remove all sources of ignition b) Contain using a dam, boom or other means c) Recover with a vacuum truck.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	18	Identify any potential downwind exposures (i.e. flammable vapour cloud, liquid product movement, etc.). If necessary, utilize Police for any further remaining evacuations.		
	19	Refer to ERP-04-03: General Response Procedures: Response Principles and Key Tactics of this Plan for general product behaviors and response tactics.		
	20	Advise Fire Services to spray foam (hydrocarbon compatible foam such as AFFF or AFFF/ATC for alcohol type concentrate). If needed.		
	21	Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»), if not already done.		
	22	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 Other useful numbers can be found in ERP-06-03, or, in ERP-09-04 for Local Authorities: Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____		
	23	Determine the potential for additional releases, if safe to do so.		
	24	Use absorbents and/or other methods to contain the spilled product at the spill area(s).		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	25	Re-evaluate safety perimeter, using air monitoring equipment (such as LEL) and permit vehicle traffic only if appropriate.		
	26	Recover visible product in affected area(s), using appropriate transfer equipment or vacuum truck and use established safe operating procedures.		
	27	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.		
	28	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).		
	29	Decontaminate equipment and clothing, if applicable.		
	30	Resume normal operations when situation is re-assessed and only when all potential risks have been eliminated.		
	31	Conduct debriefing with Responders and on-site personnel prior to demobilization and document, per PDM 1-15-04.		

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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

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147	Oakville	140 - 147
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WATER CROSSINGS	MILE POST
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Page for drawing of Key Map 140 named: SPPL 12

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Barlow Creek Tributary of Fairchild Creek
	Watercourse Crossing #	Map 133-Mile 121.5
	Location	Troy (Town of Flamborough)

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	
First Nations:	Haudenosaunee Development Institute Contact: TBD Phone: TBD	Huron Wendat Nation Contact: TBD Phone: TBD
	Mississaugas of the Credit First Nation Contact: TBD Phone: TBD	Six Nations of the Grand River Contact: TBD Phone: TBD

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1. Watercourse characteristics at pipeline crossing:

Estimated velocity	**Dimensions**		**Other**
Fall	Avg. Width: Avg. Depth: Max. Width:	3m .02m 6m	Bed Material: Limestone / silt

2. Potential environmental sensitivities:

Agricultural area.

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek A tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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 Dsipersants Skimmers	Foam Booms Skimmers Dispersants	Booms Foams Dispersants
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing #: Map 133-Mile 122.7 Location: Town of Flamborough

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	

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1. Watercourse characteristics at pipeline crossing:

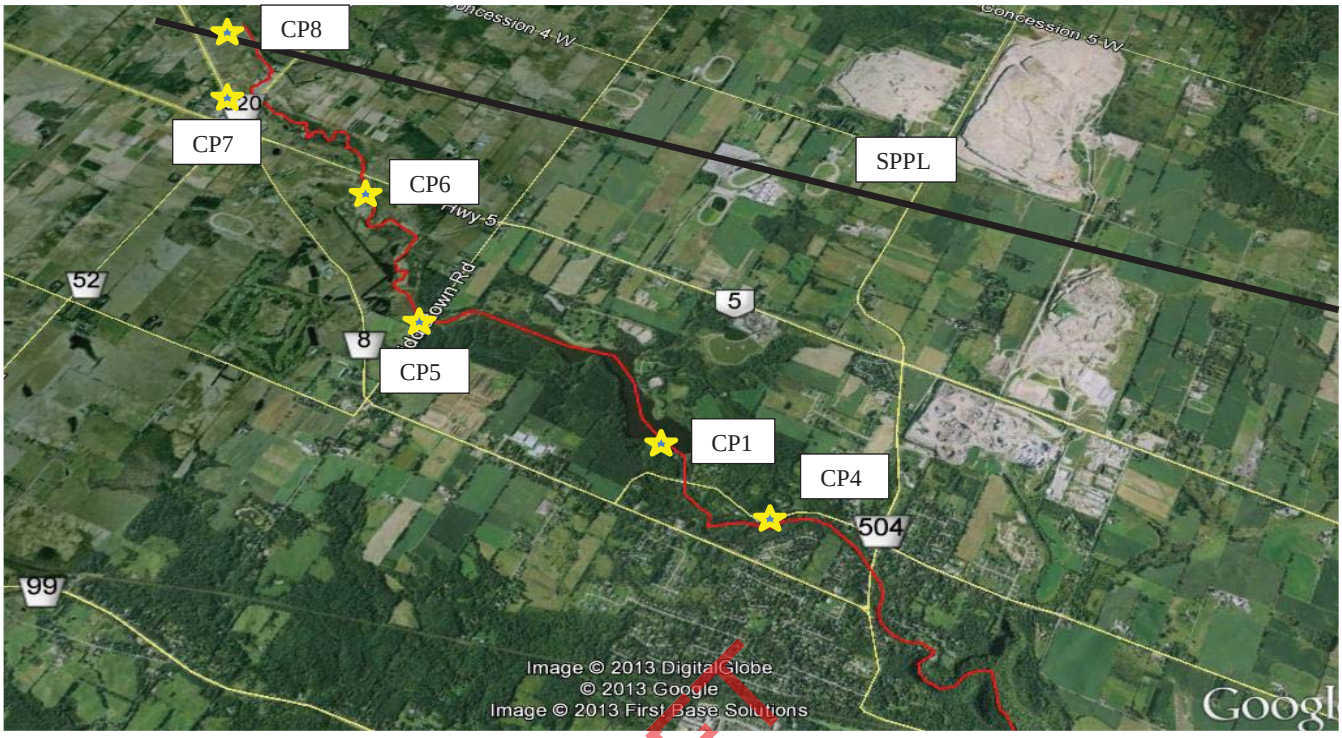
Estimated velocity		**Dimensions**		**Other**	
Fall:	1m/s	Avg. Width: Avg. Depth: Max. Width:	10m 1m 35m	Bed Material:	rock/rubble/ silt/sand

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.



Spencer Creek Control Points

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8
Harvest Rd
Rock Chapel Rd
Sydenham Rd
Creighton Rd
King St W
99
Olivet St
Osler Dr
CP3
Olympic Dr
York Rd
Coates Dr
CP2
Old Ancaster Rd
Image © 2013 DigitalGlobe
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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7	

	Control Point		
	CP1	CP2	CP3
Access/ Location	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. **Should try and stop oil before entering into Christies Conservation area, (swimming and picnic areas).** **Gate across driveway could be locked.**	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	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 **Boom 1000' to direct oil to one side of dam.**	Heavy booms Skimmers Dispersants	Heavy Booms Skimmers Dispersants
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7		
	Control Point		
	CP7	CP8	CP9
Access/ Location	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).**	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.	
Site	Control point is 15m east of bridge at meander running north. Good anchorage on both sides. 12m wide, 1m deep, .2m/s.	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.	
Containment Method	Skimmers Foam booms Dispersants	Skimmers Foam booms Dispersants	
Distance to Containment Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Spencer Creek Tributary A and B
	Watercourse Crossing #	Map 133-Mile 126.5
	Location	Town of Flamborough)

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	

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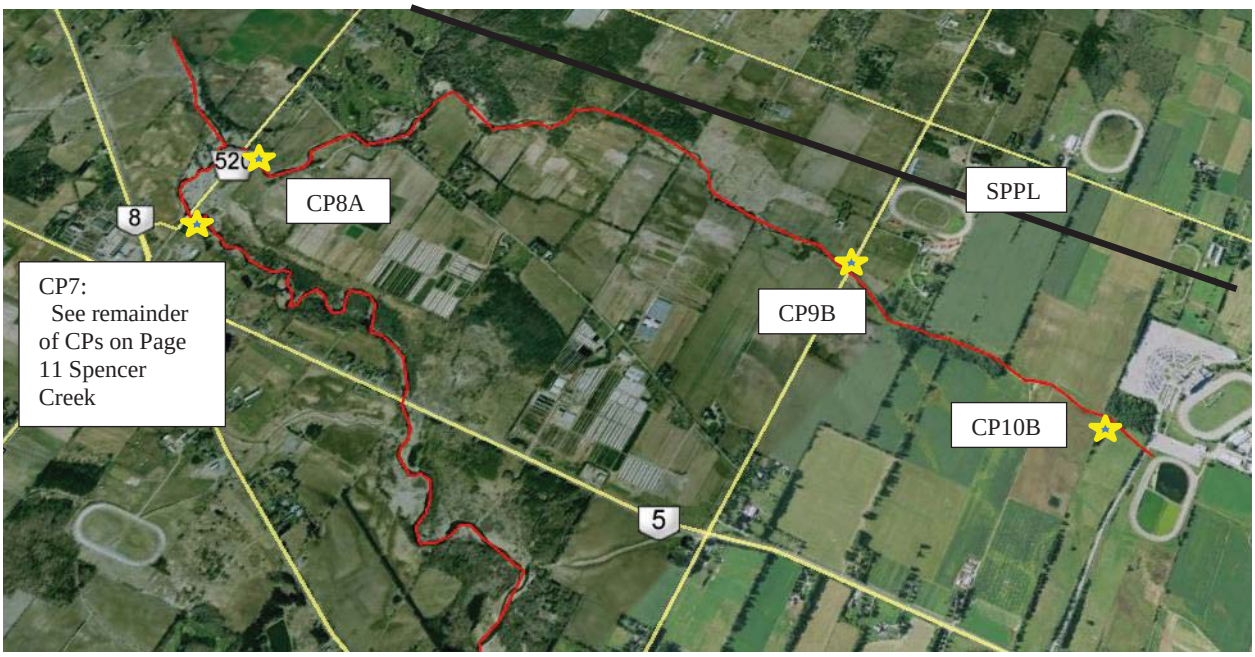
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.3m/s	Avg. Width: Avg. Depth: Max. Width:	5m .75m 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: 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.**



Spencer Creek Tributary A & B Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.6		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5		
	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, rivate 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 Disperants Skimmers
Distance to Containment Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus tributary A Watercourse Crossing #: Map 133-Mile 130.7 Location: Town of Flamborough

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	

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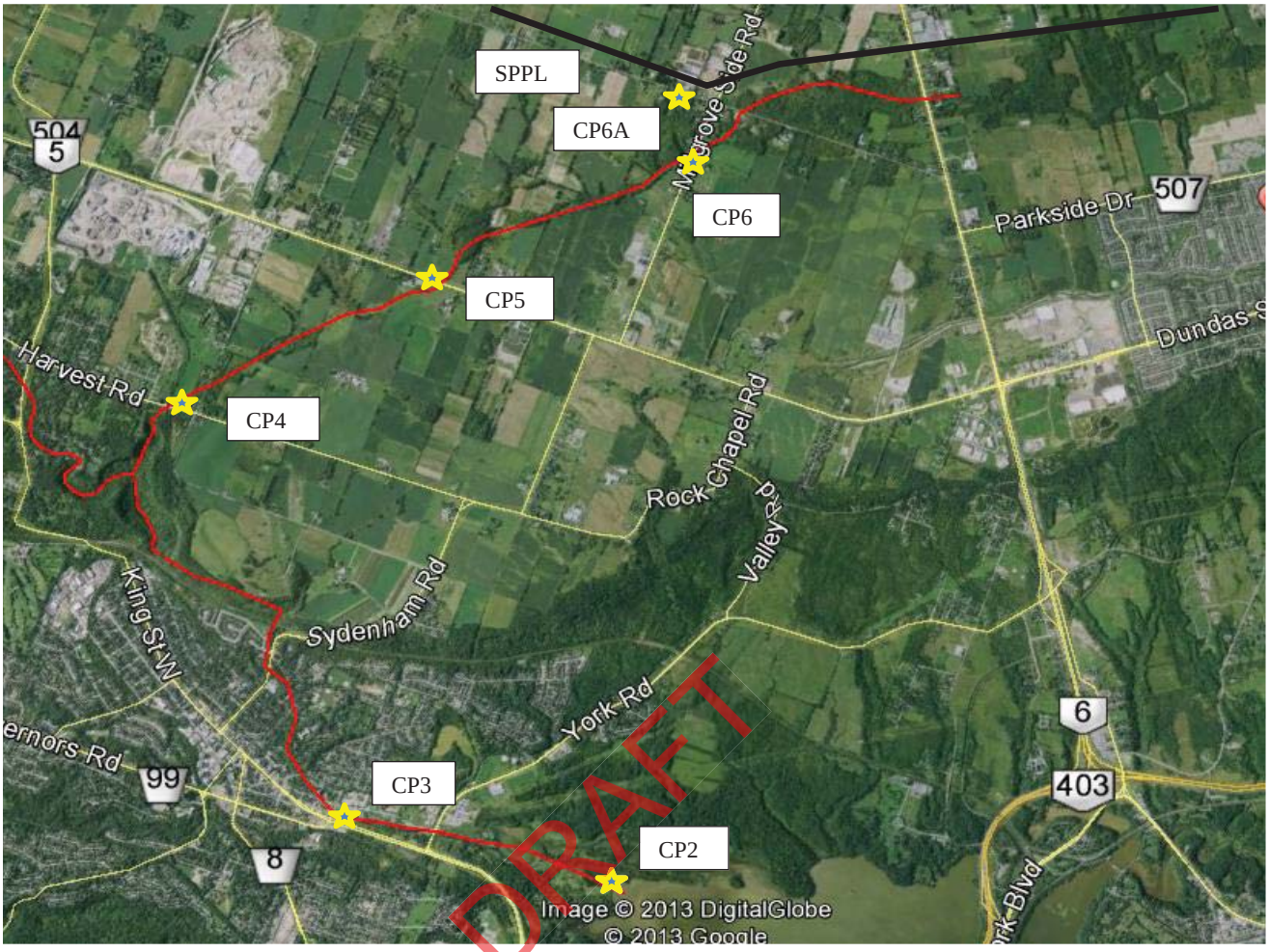
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.1m/s	Avg. Width: Avg. Depth: Max. Width:	2m .3m 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.



Logie's Creek Control Points

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Rock Chapel Creek / Borer's Creek
	Watercourse Crossing #	Map 133-Mile 130.8
	Location	Town of Flamborough

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	

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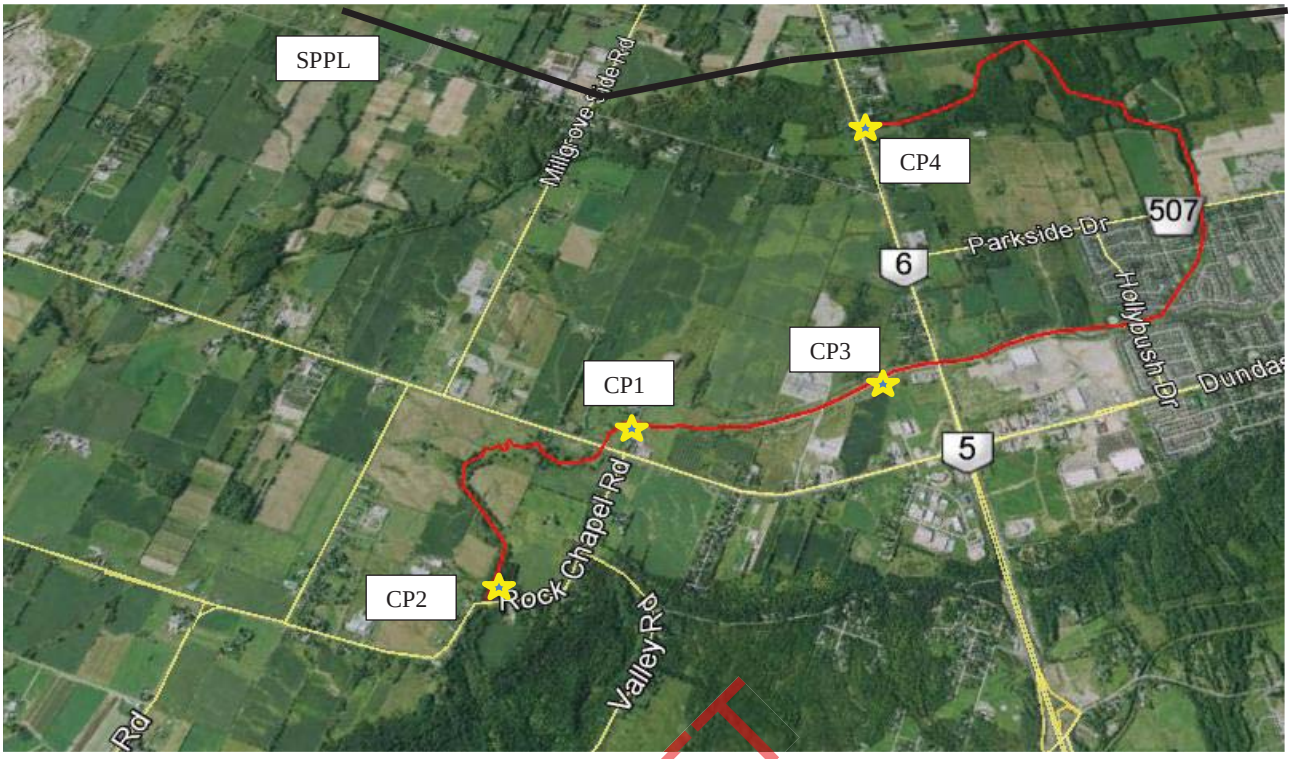
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Winter:	.5m/s	Avg. Width: Avg. Depth: Max. Width:	1m .2m 1.5m	Bed Material:	muck/silt

2. Potential environmental sensitivities:

Flows out of large wetland into smaller wetland on east side of Hwy 6.
Note: Go to CP1 first although it is before CP2 as large falls start 20m after CP1.



Rock Chapel & Borer`s Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Rock Chapel Creek / Borer's Creek Watercourse Crossing # Map 133 - Mile 130.8		
	Control Point		
	CP1	CP2	CP3
Access/ Location	CP1 is before CP2 because of Borer's Falls. 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 coarses.**	Access on west side of Rock Chapel Rd. Pull off road on east side of bridge with the creek approx. 4m to the west.	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.
Site	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.	Control at bridge. There is little anchorage except the bridge itself. Water is very fast. 2m/s, .5m deep, 3m wide. **Use extreme caution as there is a 30m waterfall 40m downstream.**	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.
Containment Method	Booms Skimmers Logs or planks to block spillgate	Booms Skimmers	Booms Foam Dispersants Skimmers
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Rock Chapel Creek / Borer's Creek Watercourse Crossing # Map 133 - Mile 130.8		
	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing #: Map 137 - Mile 135.3
	Location: Burlington

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

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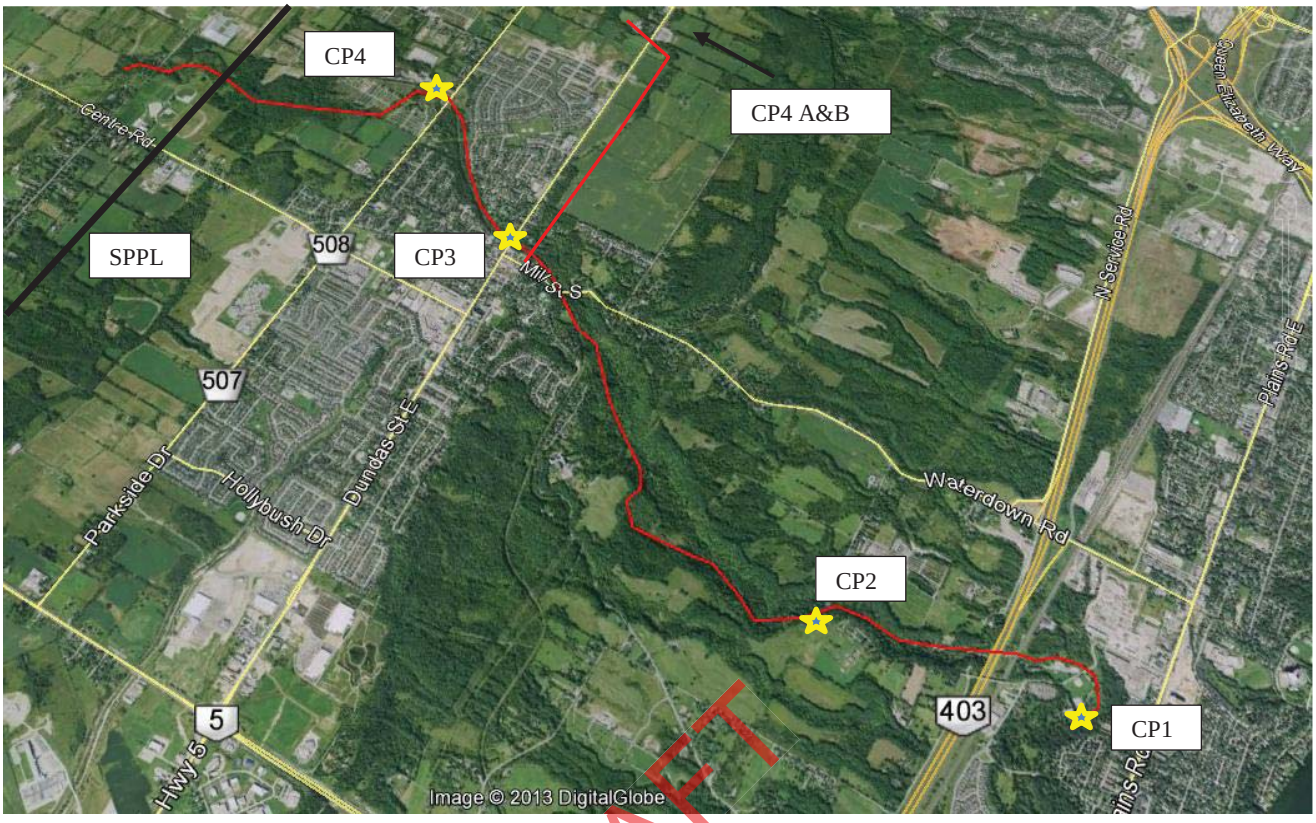
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**
Summer:	.5m/s	Avg. Width: Avg. Depth: Max. Width:	4m .2m	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 Acadamy south of Waterdown backs onto the creek.



Grindstone Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing # Map 137 - Mile 135.3	

	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 unchorage	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing # Map 137 - Mile 135.3	

	Control Point		
	CP4	CP5	CP6
Access/ Location	Access on north side of Parkside Dr. - can get vechicle 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		

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Grindstone Creek Tributaries Watercourse Crossing # Map 137 - Mile 137
	Location Burlington

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

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1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Summer:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	1m .1m 1.5m	Bed Material:	rock/rubble

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 Acadamy south of Waterdown backs onto the creek.

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Tributaries Watercourse Crossing # Map 137 - Mile 137		
	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Tributaries Watercourse Crossing # Map 137-Mile 137	

	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 ease 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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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name	Bronte Creek (Twelve Mile Creek)
	Watercourse Crossing #	Map 142-Mile 140

See Section 09-1606 Pipeline Spill Response Tactics-Bronte Creek for detailed plans

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Sixteen Mile Creek and East Sixteen Mile Creek Watercourse Crossing # Map 147-Mile 144

See Section 09-1607 Pipeline Spill Response Tactics- 16 Mile Creek for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Joshua's Creek Watercourse Crossing #: Map 163-Mile 148.2 Location: Oakville

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

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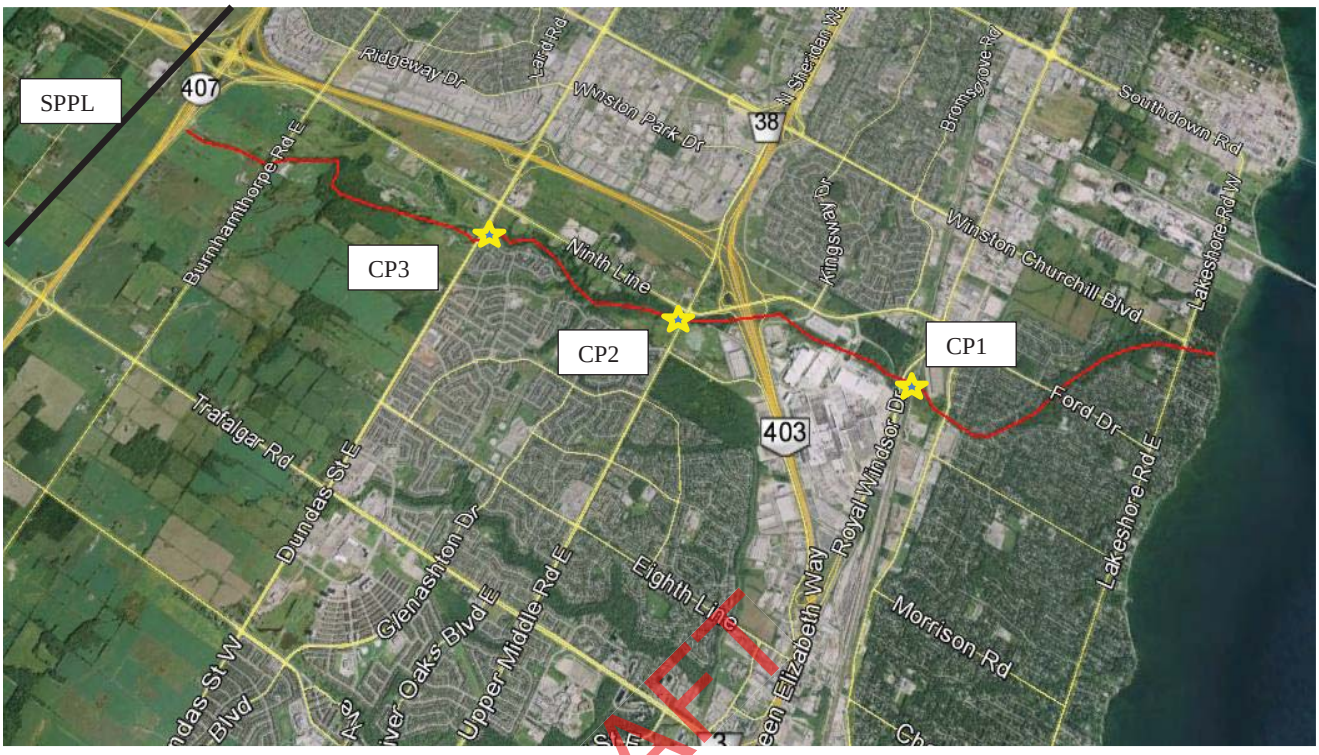
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	2m .2m 3-4m	Bed Material:	silty stone

2. Potential environmental sensitivities:

Creek runs through farmlands. Bisects 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.



Joshua`s Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Joshua's Creek Watercourse Crossing # Map 163-Mile 148.2	

	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek (Tributary of Credit River) Watercourse Crossing #: Map 163-Mile 149.2 Location: Mississauga

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	

DRAFT

1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	1.5m .2m 10m	Bed Material:	Silt

2. Potential environmental sensitivities:

Highly urbanized area.

Major portion of creek is buried.



Loyalist Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek Watercourse Crossing # Map 163 - Mile 149.2	

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek Watercourse Crossing # Map 163 - Mile 149.2	

	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		

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Sawmill Creek Watercourse Crossing # Map 163 - Mile 150.8
	Location Mississauga

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	

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1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	1m .02m 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.



Sawmill Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**		Watercourse Name: Sawmill Creek Watercourse Crossing # Map 163 - Mile 150.8

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Sawmill Creek Watercourse Crossing # Map 163-Mile 150.8	

	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	

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Mullet Creek Watercourse Crossing # Map 163 - Mile 152.3
	Location Mississuaga

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	

DRAFT

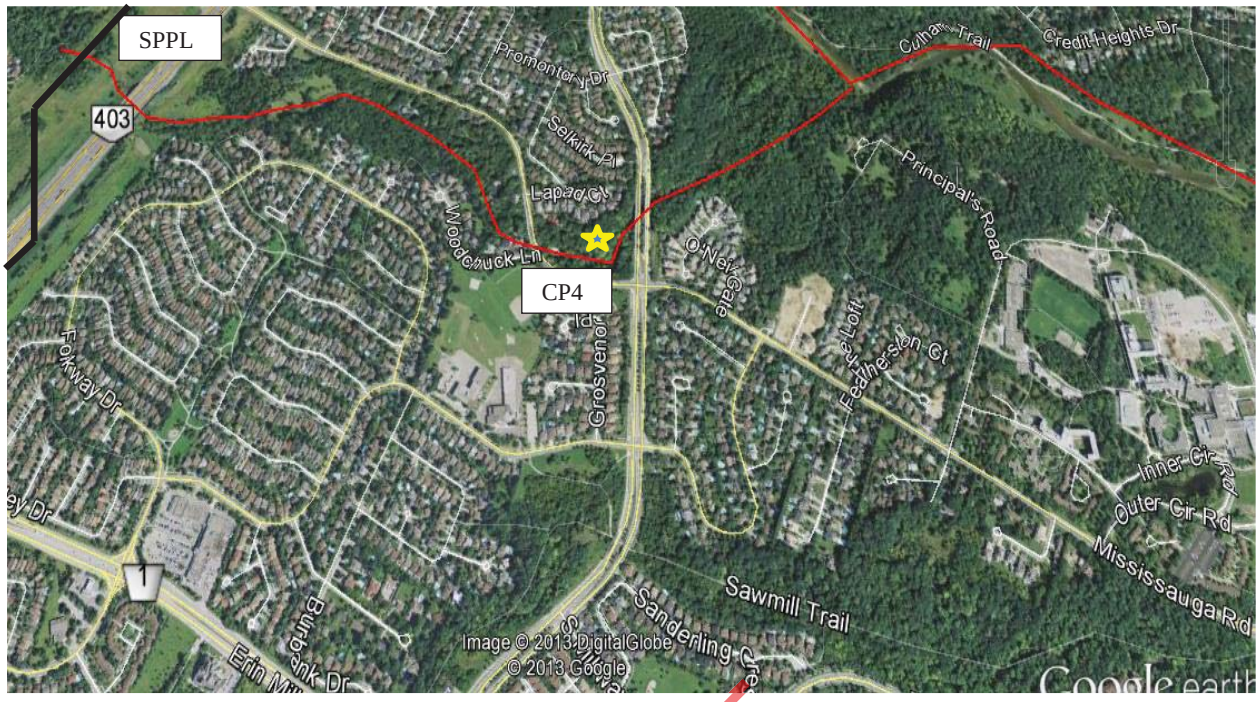
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	2m .2m 10m	Bed Material:	silt stone

2. Potential Environmental Sensitivities:

Urbanized. Mature ravine woodlands.

Joins Credit River in Promentory Woods.



Mullet Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mullet Creek Watercourse Crossing # Map 163 - Mile 152.3

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Credit River
	Watercourse Crossing #	Map 163-Mile 152.5
	Location	Mississauga

See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Tributary to Credit River Watercourse Crossing # Map 163 - Mile 152.7
	Location Mississauga

See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155 Location: Mississauga

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	

DRAFT

1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	2m .02m 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.



Mary Fix Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155	

	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			

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155		
	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	- Absorbants - Vacuum pump		
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Cooksville Creek Watercourse Crossing # Map 163 - Mile 155.5

See Section 09-1608 Pipeline Spill Response Tactics-Cooksville Creek for detailed plans

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Cooksville Creek Tributary Watercourse Crossing # Map 163 - Mile 156

See Section 09-1608 Pipeline Spill Response Tactics-Cooksville Creek for detailed plan

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Little Etobicoke Creek Watercourse Crossing # Map 163 - Mile 157.5
	Location Etobicoke

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

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1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	3m .5m 4m	Bed Material:	silt/gravel

2. Potential Environmental Sensitivities:

Flows through highly industrialized area

Flows through the small urban parks of Rathwood, Applewood Hills and Willow Creek.



Little Etobicoke Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Little Etobicoke Creek Watercourse Crossing # Map 163 - Mile 157.5	

	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		- south side - small barricade - 100m down before first bend - 3m wide - .5m deep	- small pool north side - 4m wide - .4m deep
Containment Method		- Absorbants - vacuum pump	- Absorbants - vacuum pump
Distance to Control Point		100m	20m

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Etobicoke Creek Watercourse Crossing # Map 163 - Mile 158.8
	Location Etobicoke

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See Section 09-1604 High Water Action Plan & Pipeline Spill Response Tactics-Etobicoke Creek for detailed plans

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This page for drawing of Map 170A named: SPPL 19

This page for drawing of Map 170B named: SPPL 20

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name Mimico Creek Watercourse Crossing # Map 170-Mile 162.2

See Section 09-1609 Pipeline Spill Response Tactics- Mimico Creek for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Humber River / Emery Creek Watercourse Crossing # Map 170 - Mile 166
	Location Etobicoke

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See Section 09-1605 High Water Action Plan & Pipeline Spill Response Tactics- Humber River for detailed plans

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169
	Location: Etobicoke

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

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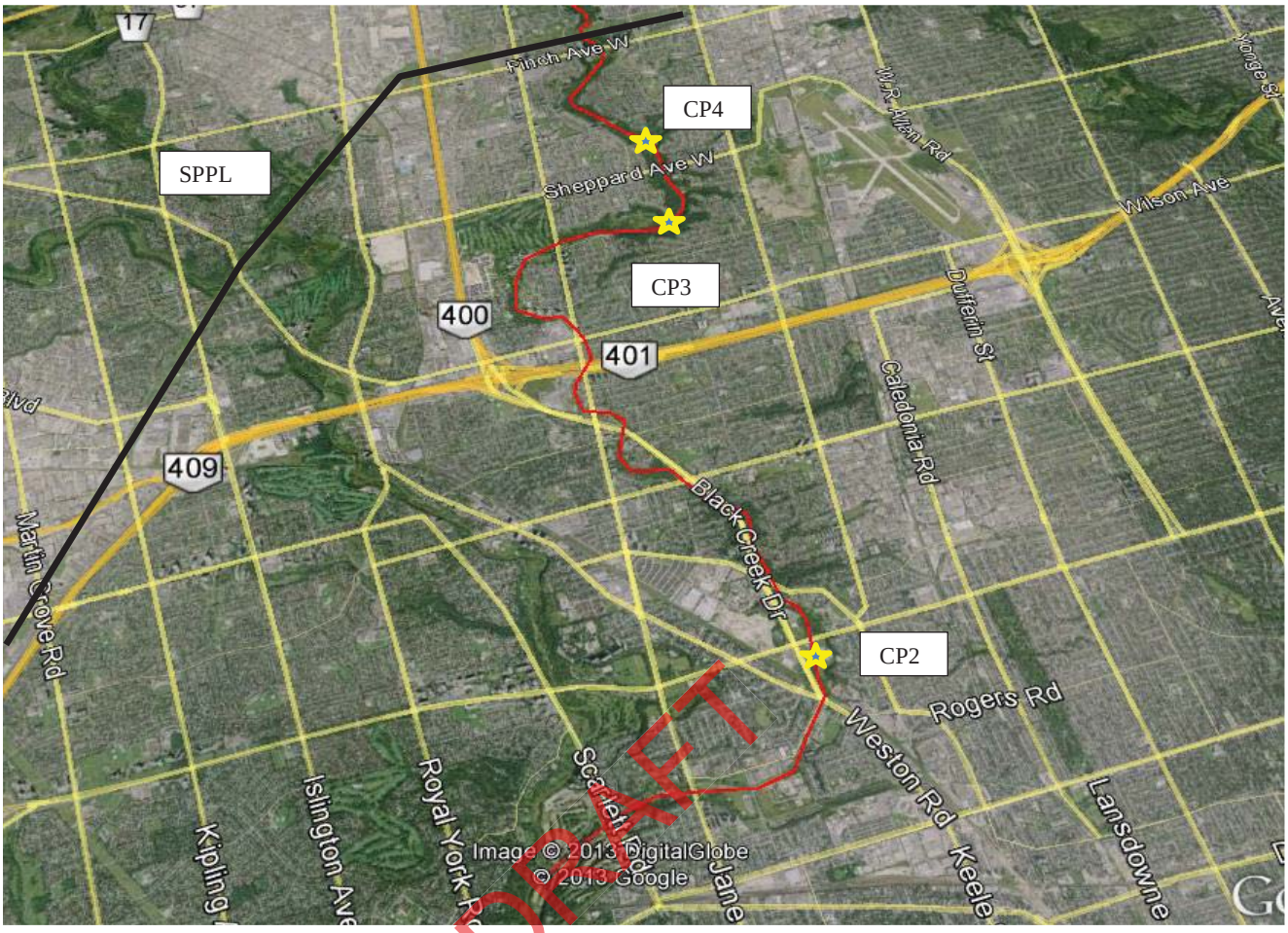
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	4m .2m 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.
Bisects 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.



Black Creek Control Points

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169	

	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 Eglington 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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169

	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		

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ROC3535c Attachment - Spill Prevention and Response Plan with Comments

Waterdown to Finch Project

Spill Prevention and Response Plan

Imperial

Esso Mobil

EM Document No.:
ONT-WF-SPPL-UP-RP-0006

UPI Doc Number:
24255-598-3RT-10013

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ACRONYMS AND ABBREVIATIONS

CEPA	*Canadian Environmental Protection Act*
EI	Environmental Inspector
EPA	Ontario *Environmental Protection Act*
EPP	Environmental Protection Plan
EPC	Engineering, Procurement and Construction Management Contractor
MECP	Ministry of Environment, Conservation and Parks
NFPA	National Fire Protection Association
HDB	Horizontal directional boring
HDD	Horizontal directional drilling
QP	Qualified Person
SAC	Spills Action Centre
SPPL	Sarnia products pipeline
UFC	Unified Facilities Criteria
UPI	Universal Pegasus International

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1. OVERVIEW AND PURPOSE

As part of the Waterdown to Finch Project Environmental Protection Plan ("EPP"), this Spill Prevention and Response Plan has been developed to provide best practices for the Contractor to implement during and construction activities. It provides guidance on spill prevention, contingency planning, and reporting practices for the timely and effective prevention and response to potential inadvertent, construction-related releases to land and surface water. This Spill Prevention and Response Plan delineates provisions for the inadvertent release of both non-hazardous and potentially hazardous material (e.g., certain lubricating oils, drilling wastes).

The guidelines included in this Spill Prevention and Response Plan will be followed to reduce the potential for a spill to land or surface water and thereby protect terrestrial, groundwater and surface water resources. Performance objectives for the management of potential substance release have been included in this Spill Prevention and Response Plan that consider the Project's risks and compliance obligations, including:

- Planning and prevention - preventing the inadvertent release of materials that may have a deleterious effect on the terrestrial and aquatic environments;
- Spill management - responding with appropriate measures in a timely manner to an inadvertent release; and
- Spill notification and reporting - providing timely notifications and reports to key project personnel and regulatory agents.

All employees, contractors and consultants will abide by all federal, provincial and local requirements for disposal and release reporting requirements for all products and waste materials that are potentially hazardous to human health and the environment.

Once in operation, the pipeline will be included in Imperial's current operational plans and procedures for the SPPL and is not within the scope of this plan. This includes Imperial's Emergency Response Plan that will be implemented in response to the unlikely event of a pipeline leak during operation.

2. REGULATORY CRITERIA

The interception and cleanup of spills must comply with provisions in the *Environmental Protection Act*, R.S.O. 1990 ("EPA"), specifically regulation 224/07 which outlines regulation for Spill Prevention and Contingency Plans and regulation 675/98 and 225/07 which outline the Classification and Exemption of Spills and Reporting of Discharges. Under Ontario Reg. 675/98, in the event of an inadvertent spill, the Spills Action Centre ("SAC") must be notified in a timely manner.

The Contaminated Materials and Management and Handling Plan will be implemented according to the requirements of the Ministry of Environment, Conservation and Parks ("MECP").

3. ROLES AND RESPONSIBILITIES

3.1 Proponent

Imperial Oil Limited is the owner of the Project and aside from external regulatory reporting, will delegate the implementation of this Spill Prevention and Response Plan to the Engineering, Procurement and Construction Contractor ("EPC").

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Imperial is responsible for all regulatory and external reporting associated with the Spill Prevention and Response plan and in accordance with permits and authorizations.

3.2 Engineering, Procurement and Construction Contractor

The EPC is responsible for the development, design and supervision of the implementation of the construction Spill Prevention and Response Plan, including:

- Leading the development of the Spill Prevention and Response Plan.
- Selecting and designing Spill Prevention and Response measures that are best suited for the site-specific environmental conditions.
- Reviewing and approving on-site design modifications.
- Developing and implementing contingency plans for addressing Spill Prevention and Response controls that are not effectively or successfully implemented.
- Overseeing inspection of Spill Prevention and Response controls.

3.3 Authorized Personnel

The Contractor will assign Authorized Personnel who will be designated to handle fuel, lubricants or other regulated substances. Authorized personnel will be familiar with the requirements of the Spill Prevention and Response Plan.

3.4 Contractor

The EPC will assign a construction Contractor who is responsible for following the Spill Prevention and Response Plan including:

- Installing the Spill Prevention and Response Plan measures according to specifications.
- Inspecting, monitoring, and maintaining Spill Prevention and Response Plan measures.
- Personnel shall notify the crew foreman or Environmental Inspector immediately of any spill of a petroleum product or hazardous liquid, regardless of volume.
- Following spill prevention, notifications and reporting to Imperial.

3.5 Environmental Inspector

The EPC will assign an Environmental Inspector (“EI”) who will be responsible for inspection and monitoring of the activities and mitigation measures outlined in the Spill Prevention and Response Plan including:

- Understanding the Spill Prevention and Response Plan and its implementation.
- Inspecting Spill Prevention and Response measures on a regular basis and after rainfall/snowmelt events.
- Monitoring compliance with the provisions of the Spill Prevention and Response Plan.
- Implementing contingency measures if the prescribed Spill Prevention and Response Plans are not effective.
- Confirm appropriate agency notifications are made (notification to be completed by Imperial), spill resources are allocated, and clean-up is accomplished in accordance with applicable agency requirements.
- Documenting all site inspections and corrective actions.

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3.6 Subcontractor(s)

If the Contractor or EI determines that a spill is beyond the scope of on-site equipment and personnel, the Contractor will assign an emergency response Subcontractor to contain and/or clean up the spill.

The Contractor or Subcontractor will retain a Qualified Person ("QP"), as defined in Ontario Regulation 153/04 (as amended) and licensed to practice in the Province of Ontario, to review, direct and manage all activities related to soil management (contaminated, non-contaminated, excess soil etc.) and soil importation activities during the construction activities of the Project.

The Subcontractor will assist the Contractor and EI to monitor containment procedures to ensure that the actions are consistent with the requirements of this Spill Prevention and Response Plan.

4. PLANNING AND PREVENTION

This section summarizes minimum standards for handling and storing regulated substances and cleaning up spills. Potential sources of construction-related spills include machinery and equipment failure, fuel handling, transfer accidents and storage tank leaks. The Contractor will be responsible for implementing, at a minimum, the following planning and prevention measures (Table 4-1).

Table 4-1: Spill Planning and Prevention Measures

Activity/ Feature	General Spill Prevention Measures
Training	1. Train Contractors and all involved on-site staff on the Spill Prevention and Response Plan, implementation, prevention, use of emergency kit and reporting for both hazardous materials and spill response. 2. Include specific instructions regarding applicable notifications and appropriate response actions to be taken in the event of a release in on-site staff training. 3. Contractor employees will be briefed on procedures to respond to a pipeline spill (e.g. damage to a third party adjacent in-service pipeline) during mandatory safety and environment training to be provided by the EPC.
Planning	4. Temporary workspaces to be assessed prior to use to identify suitable locations for long term vehicle parking, refueling stations, and areas for mechanical work and signage provided to illustrate where these activities are to take place. 5. Spill prevention equipment (spill kits, drip pans, etc.) to be strategically located at each site.
Spill kits and materials	6. Maintain spill kits to contain a sufficient quantity of absorbent and barrier materials to adequately contain and recover foreseeable spills. These kits may include, but are not limited to absorbent pads, straw bales, absorbent clay, sawdust, floor-drying agents, spill containment barriers, plastic sheeting, skimmer pumps, and holding tanks. This equipment will be located near fuel storage areas and other locations as necessary to be readily available. 7. Maintain, clearly label and have easily visible the appropriate release containment (spill kits) and recovery equipment and materials at all work sites. 8. Contractor to train all staff with the locations of the spill control equipment and materials and have readily accessible during construction activity. 9. Carry materials adequate to control foreseeable spills in all fueling vehicles, and where necessary, service vehicles. Such material may include but not be limited to absorbent pads, commercial absorbent material, plastic bags with ties, and shovels.

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Activity/ Feature	General Spill Prevention Measures
Transport, Storage and Handling of Fuels/ Hazardous Liquids	10. Only employ Authorized Personnel to transport, store, and handle fuels / hazardous liquids. 11. Travel of fuel trucks transporting fuel to on-site construction equipment occur only on access roads approved by the EI. 12. Maintain all equipment in proper running order to prevent leaking or spilling of potentially hazardous or toxic products. This includes hydraulic fluid, diesel, gasoline and other petroleum products. 13. Store all hazardous materials, chemicals, fuels and lubricating oils more than 30 m from any wetlands, streams and waterbodies. 14. Do not park equipment overnight (including but not limited to light plants, generators, pumps, and machinery) within 30 m of a wetland or waterbody unless secondary containment provisions have been implemented and approved by the EI in advance. 15. Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water (e.g., at a distance of greater than 30 m from top of bank). 16. Store fuel in contractor yards only or as approved by the EI. 17. Equip all fuel nozzles with functional automatic shut-offs 18. Maintain signage at and adjacent to fuel storage areas indicating “Fuel Storage Area – No smoking within 15 meters.” 19. Maintain fire extinguishers in suitable locations according to regulatory requirements and specifications. 20. Keep tools and materials on-site to stop leaks. Such equipment may include, but not be limited to, plugs of various sizes, 3M tank patches, a hammer, assorted sizes of metal screws with rubber washers, a screwdriver, and plastic tape. 21. Store fuels, lubricants, waste oil, and any other regulated substances in aboveground tanks only. 22. Conform to all applicable industry codes for storage tanks and containers (e.g., Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations under the *Canadian Environmental Protection Act* [“CEPA”]). 23. Utilize a suitable secondary containment structure at each fuel storage site. Line these structures with suitable plastic sheeting; provide a minimum containment volume equal to 150 percent of the volume of the largest storage vessel. 24. Do not have drains in the secondary containment areas. Precipitation may be drawn off as necessary. Discharge any accumulated water if no spillage has occurred in the secondary containment structure. Pump any accumulated waste into drum storage for disposal if spillage has occurred in the structure. 25. Make all efforts to dispense fuel during the daylight hours. 26. Station personnel at both ends of the hose during fueling unless both ends are visible and are readily accessible by one person.
Directional Drilling/ Boring	27. Implement Inadvertent Returns during HDD Plan that includes measures to stop work, contain the drilling fluid/mud and prevent its further migration into the watercourse, and notify all applicable authorities. Prioritize clean-up activities relative to the risk of potential harm and dispose of drilling mud in a manner that prevents re-entry into the watercourse. Do not implement clean-up measures that result in greater damage to the banks and watercourse than from leaving the drilling mud in place.

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Activity/ Feature	General Spill Prevention Measures
Watercourses/ Wetlands	28. Contractor to store hazardous materials, chemicals, fuel and lubricating oils, and perform refuelling, maintenance, and lubricating activities more than 30 m from wetlands, streams, and waterbodies (including drainage ditches), and water supply wells. 29. While the setback for refueling, storage, and maintenance near wetlands and waterbodies is compulsory 30 m it may be unavoidable in certain instances due to site specific conditions or unique construction requirements (e.g., continuously operating pumps or equipment on barges). If this activity occurs within wetlands or near streams for refueling of continuously operating pumps, use secondary containment for these unique requirements. 30. Line secondary containment structures with suitable plastic sheeting, provide a containment volume of at least 150 percent of the storage vessel, and allow for at least one foot of freeboard. 31. Provide adequate lighting for these locations and activities.
Inspection and Monitoring	32. EI to monitor the Contractor's compliance with the Spill Prevention and Response Plan. 33. Notify the appropriate Spill Coordinator if an accidental spill arises, regardless of the size. 34. Notify key project personnel and regulatory agencies, per the Spill Notification and Reporting Procedures described in Table 3.

5. SPILL MANAGEMENT

The following response and management procedures will be followed immediately upon learning of any fuel, oil, hazardous material, sediment release, drilling mud or other regulated substance spill, or upon learning of conditions that will lead to an imminent spill (Table 5-1). Spills are defined as the release of a pollutant into the natural environment, from or out of a structure, vehicle or other container that is abnormal in quality or quantity in light of all of the circumstances.

Table 5-1: Spill Response and Management Procedures

Activity/ Feature	General Response and Management Measures
Immediate Spill Response	1. When a spill has occurred, the Contractor will immediately: a. Assess the safety hazards of the situation and remove sources of ignition, if safe to do so. b. Identify the product, stop the source and physically contain the spill as soon as safe to do so. c. Engage emergency services if required. d. Notify Imperial Oil Limited and the EI of the incident. e. Mobilize on-site personnel, equipment, and materials for containment and/or cleanup commensurate with the extent of the spill. f. Engage and assist the Emergency Response Subcontractor as needed and monitor containment procedures to ensure that the actions are consistent with the requirements of this Spill Prevention and Response Plan. g. Coordinate with Imperial to determine the need to evacuate spill sites to safeguard human health; and h. Delineate the release and containment area to avoid further disturbance in the area. 2. EI will complete the Spill Report Form (Appendix A) 3. Imperial Oil Limited will notify the applicable stakeholders

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Activity/ Feature	General Response and Management Measures
Spill Response – Fuel Truck	In addition to the Immediate Spill Response above, the Contractor will: 4. Pump the tanker dry (into appropriate containers or another tanker). 5. Remove the tanker from the site. 6. Recover the spilled product. 7. Clean-up the contaminated area with absorbent materials. 8. Dispose of sorbent pads, heavily contaminated soil and vegetation at an approved facility.
Spill Response - Adjacent to or into a Waterbody	In addition to the Immediate Spill Response above, the Contractor will: 9. Deploy booms, skimmers, sorbents, etc., if feasible, to contain and recover the spilled material from the waterbody. 10. Clean-up the contaminated area, including downstream shorelines. 11. Dispose of contaminated soil and vegetation at an approved facility.
Pipeline spill	12. Notify Imperial's Emergency Pipeline Control at 1-800-372-9597 (24-hours/day) as well as the Imperial Environmental Lead in the event of a suspected Imperial pipeline spill (or from an adjacent pipeline). Imperial Operations to implement the Operational Emergency Response Plan.
Cleanup, storage and disposal of contaminated materials	13. Determine clean-up options and appropriate methods to recover and dispose of potentially contaminated soil or vegetation at an approved facility. 14. Recover the released materials from the defined containment area using equipment suitable to the nature and extent of the release. 15. Cleanup the release and contaminated areas. Consultation with a qualified remediation specialist and/or Company Representative may be required. 16. Store and cover excavated soils on site with plastic sheeting in a bermed area to prevent and contain runoff if temporary storage is necessary. 17. Dispose of contaminated materials, and contaminated soils and vegetation at an approved facility in accordance with applicable provincial and federal regulations. 18. Use only licensed carriers to transport contaminated material from the site to a disposal facility. 19. For the storage and disposal of contaminated materials refer to the Waste Management Plan.

6. SPILL NOTIFICATION AND REPORTING

The following notification and reporting procedures will be taken immediately upon learning of any fuel, oil, hazardous material, sediment release, drilling mud or other regulated substance spill (Table 6-1).

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Table 6-1: Spill Notification and Reporting Procedures

Activity / Features	General Notification and Reporting Procedures
Internal notification	1. Contractor to notify Imperial and EI immediately of any spill of a petroleum product or hazardous liquid, regardless of volume. 2. Imperial to notify applicable stakeholders as required.
Internal reporting	3. Contractor to ensure all cleanup activities required by a jurisdictional agency are satisfactorily met and provide documentation to Imperial demonstrating this compliance. a. EI to complete a Spill Report Form (refer to Appendix A) within 24-hours of the occurrence of a spill, regardless of the size of the spill. Include a record of the report in the Project files per Ontario Regulation 675/98: b. Imperial to keep this record for two years after the spill for all Class V, VII, VIII, IX and XI spills. c. Imperial to keep this record for five years after the spill for all Class X (non-reportable) spills. 4. Contractor to complete any required follow up written reports, associated laboratory analysis, and other documentation as requested by the EI on a site specific basis.
External notifications	5. Imperial to report spills and discharges, per the Ontario EPA, to the MECP through the SAC at 1-800-268-6060. 6. Imperial to notify the appropriate federal, provincial and local agencies, Indigenous communities as well as additional parties or agencies. 7. Imperial to report the spill to the municipality in which the spill occurred. 8. Imperial to notify the landowner of the property on which the spill occurred. 9. All spills, regardless of volume, that enter directly or indirectly into a sanitary or storm sewer or rural ditch must be reported to the City of Hamilton, City of Toronto, City of Burlington, City of Mississauga, the Region of Halton, Region of Peel, Town of Milton and the Town of Oakville. Phone numbers for all stakeholders are in Appendix B. Exemptions for municipal notifications will be reviewed on a case by case basis.

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7. REFERENCES

Government of Ontario. 1990 (updated 2019). Environmental Protection Act, R.S.O 1990, c. E. 19 Available online at https://www.ontario.ca/laws/statute/90e19. Accessed May 2019.

OEB (Ontario Energy Board). 2016. *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario*. 7th Edition, 2016.

MOE (Ministry of Environment). 2007.Guideline for Implementing Spill Prevention and Contingency Plans Regulatory Requirements (O.Reg.224/07). Available at https://archive.org/details/std01079161.ome/page/n7. Accessed May 2019.

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APPENDIX A SPILL REPORT FORM

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Spill Report Form

(The Contractor must complete this for any spill, regardless of size, and submit the form to the Imperial Representative within 24 hours of the occurrence)

Date of Spill: _____ Date of Spill Discovery: _____

Time of Spill: _____ Time of Spill Discovery: _____

Name and Title of Discoverer: _____

Type of material spilled and manufacturer's name: _____

Legal Description of spill location to the quarter section: _____

Directions from nearest community: _____

Estimated volume of spill: _____

Estimated duration of the release of the pollutant: _____

Weather conditions: _____

Topography and surface conditions of spill site: _____

Spill medium (pavement, sandy soil, water, etc.): _____

Proximity of spill to surface waters: _____

Did the spill reach a waterbody? _____ Yes _____ No

If so, was a sheen present? _____ Yes _____ No

Describe the causes and circumstances resulting in the spill: _____

Describe the extent of observed contamination, both horizontal and vertical (i.e., spill-stained soil in a 5-foot radius to a depth of 1 inch): _____

_____

Describe immediate spill control and/or cleanup methods used and implementation schedule:

_____

_____

Describe the method used to dispose of the pollutant and any part of the environment that was affected by the spill: _____

Current status of cleanup actions: _____

Any adverse effects observed as a result of the spill: _____

Name and Company for the following:

Construction Superintendent: _____

Spill Coordinator: _____

Imperial Representative: _____

Person Who Reported the Spill: _____

Environmental Inspector: _____

Form completed by: _____ Date: _____

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APPENDIX B SPILL REPORTING CONTACTS

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Table B-1: Spill Reporting Contacts

Agency	Notification Period	24-hour Reporting Hotline	Regulation/Code	Comments
Provincial Contacts				
Ministry of Environment, Conservation and Parks via Spills Action Centre	Immediately	1-800-268-6060	Ontario Reg 2675/98	Will include Technical Standards and Safety Authority notification, if applicable.
Municipal Contacts				
City of Hamilton	Contractor to confirm	1-905-540-5188	Ontario Reg 2675/98	Spill Reporting Hotline
City of Toronto	Contractor to confirm	1-416-325-3000 311 (within Toronto)	Ontario Reg 2675/98	Spill Reporting Hotline
City of Burlington	Contractor to confirm	1-905-333-6166	Ontario Reg 2675/98	City of Burlington Roads, Parks and Forestry Department
City of Mississauga	Contractor to confirm	1-905-615-3000	Ontario Reg 2675/98	24 hour dispatch
Region of Peel	Contractor to confirm	1-905-791-7800	Ontario Reg 2675/98	Spill Response Hotline
Town of Milton	Contractor to confirm	1-905-878-7252 311 (within Milton)	Ontario Reg 2675/98	Town of Milton
Town of Oakville	Contractor to confirm	1-905-845-6601 311 (within Oakville)	Ontario Reg 2675/98	Town of Oakville
Indigenous Community Contacts				
Haudenosaunee Development Institute	TBD	TBD		Haudenosaunee Confederacy Chiefs Council
Huron-Wendat Nation	TBD	TBD		
Mississaugas of the Credit First Nation	TBD	TBD		
Six Nations of the Grand River	TBD	TBD		
Conservation Authority Contacts				
Toronto Region Conservation Authority	Contractor to confirm	1-416-661-6600		Toronto Region Conservation Authority
Hamilton Region Conservation Authority	Contractor to confirm	1-905-825-6000		Hamilton Region Conservation Authority
Halton Region Conservation Authority	Contractor to confirm	1-905-825-6000		Spill Response Hotline
Credit Valley Conservation Authority	Contractor to confirm	1-905-670-1615		Credit Valley Conservation Authority

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TITLE **Imperial Facility - Emergency Response Plan**
SECTION 08: Specific Contingency Plans
SUBJECT 15: Spill - Low Vapour Pressure 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 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.

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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.

Incident : _____ Facility: _____ Date : _____

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	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 all 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	Isolate the leaking pipeline section by ensuring the appropriate main valves are closed, if safe to do so.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	6	Assess the situation using the "Disciplined Approach": a) Evaluate the extent of the spill b) Determine the need to stop all/or other operations including shutting down other pipelines in the same corridor, if applicable. c) 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) d) Determine the need to call the Facility ER Team (ERP-09-04: Appendices: Facility Specific «Contacts Lists») e) Evaluate the need for Municipal ER support. If required, call local Police, Fire Services and Public Works (ERP-09-04) f) Notify First Nations so they are able to stand up representatives to attend to protection of critical sites and provide guidance to responders. (ERP-09-04 to be updated with regional First Nations contact information) g) Decide on the action plan. Get Support, if required and Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»).		
	7	Evaluate effectiveness of the safety perimeter, using air-monitoring equipment (Lower Explosion Limit), if applicable		
	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.		
	11	Call the local Police for traffic and safety perimeter control and the Fire Dept. Services for vapour dispersion or suppression and fire prevention, if spilled product migrated off the right of way or if otherwise warranted and not already done. See ERP-09-04		

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Continue following steps if the spill has migrated to public or third party premises. If not, go directly to step #17.

STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	12	Establish a Unified Command structure with Public Authorities as per ERP-01-05, ERP-02-01 and ERP-04-02, if not already done.		
	13	Notify IOL Public Affairs (ERP-06-02: Emergency Response Contacts and Resources: Other Imperial Emergency Response Resources).		
	14	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; a) Did spill/leak go into any city sewer systems (sanitary, rainwater or sanitary)? b) 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») c) Are vapours present in nearby businesses/residences? d) Did the spilled material reach the water table? e) Any drinking water wells within 1 km of the spill source? f) What response resources do you have? g) Decide on the action plan.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	15	Did hydrocarbon go into a city sewer system? If yes: a) Contact City Public Works (ERP-09-04 or dial "0") b) Obtain sewer plot plan from the City Public Works c) Determine safety perimeters using monitoring device (i.e. like LEL meters) in co-operation with City Public Works d) Have installed appropriate number of chimneys or explosion-proof fans at street manholes to discharge the vapours e) Verify if gasoline vapours are present in nearby residences and if so, request Police /Fire Dept to evacuate those residents f) Identify / Ensure no sources of ignition g) Block sewers downstream. Recover product with a vacuum truck and have sewer systems flushed starting upstream. If distillate, use the same steps even though there are much lesser risks associated with this type of product.		
	16	Did petroleum product reach the water table? If yes: a) Provide alternate source of drinking water to affected residents b) Involve a company Environmental Specialist c) Determine the perimeter by taking water samples and getting them analyzed using the services of a professional firm d) Transfer the follow-up activities with help from the Imperial (CFO) Business Management involved.		
	17	Is hydrocarbon present in a ditch, stream or river? If yes: a) Remove all sources of ignition b) If crude, check for H_2S c) Disperse the vapours with water fog d) Ask the Fire Dept Services to spray a blanket of hydrocarbon compatible foam, if hydrocarbon trapped and is felt appropriate e) Recover product with a vacuum truck. If distillate: a) Remove all sources of ignition b) Contain using a dam, boom or other means c) Recover with a vacuum truck.		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	18	Identify any potential downwind exposures (i.e. flammable vapour cloud, liquid product movement, etc.). If necessary, utilize Police for any further remaining evacuations.		
	19	Refer to ERP-04-03: General Response Procedures: Response Principles and Key Tactics of this Plan for general product behaviors and response tactics.		
	20	Advise Fire Services to spray foam (hydrocarbon compatible foam such as AFFF or AFFF/ATC for alcohol type concentrate). If needed.		
	21	Notify Imperial (CFO) Business Management (ERP: «Business Management Contacts List»), if not already done.		
	22	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 Other useful numbers can be found in ERP-06-03, or, in ERP-09-04 for Local Authorities: Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____ Government Agency:_____ Person contacted:_____		
	23	Determine the potential for additional releases, if safe to do so.		
	24	Use absorbents and/or other methods to contain the spilled product at the spill area(s).		

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STATUS ✓ OR N/A		ACTIVITY	INITIALS	TIME COMPLETED
	25	Re-evaluate safety perimeter, using air monitoring equipment (such as LEL) and permit vehicle traffic only if appropriate.		
	26	Recover visible product in affected area(s), using appropriate transfer equipment or vacuum truck and use established safe operating procedures.		
	27	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.		
	28	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).		
	29	Decontaminate equipment and clothing, if applicable.		
	30	Resume normal operations when situation is re-assessed and only when all potential risks have been eliminated.		
	31	Conduct debriefing with Responders and on-site personnel prior to demobilization and document, per PDM 1-15-04.		

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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

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170	Etobicoke	162 - 170

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WATER CROSSINGS	MILE POST
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Page for drawing of Key Map 140 named: SPPL 12

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Barlow Creek Tributary of Fairchild Creek
	Watercourse Crossing #	Map 133-Mile 121.5
	Location	Troy (Town of Flamborough)

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	
First Nations:	Haudenosaunee Development Institute Contact: TBD Phone: TBD	Huron Wendat Nation Contact: TBD Phone: TBD
	Mississaugas of the Credit First Nation Contact: TBD Phone: TBD	Six Nations of the Grand River Contact: TBD Phone: TBD

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1. Watercourse characteristics at pipeline crossing:

Estimated velocity	**Dimensions**		**Other**
Fall	Avg. Width: Avg. Depth: Max. Width:	3m .02m 6m	Bed Material: Limestone / silt

2. Potential environmental sensitivities:

Agricultural area.

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek A tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Barlow Creek a tributary of Fairchild Creek Watercourse Crossing # Map 133 - Mile 121.5		
	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 Dsipersants Skimmers	Foam Booms Skimmers Dispersants	Booms Foams Dispersants
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing #: Map 133-Mile 122.7 Location: Town of Flamborough

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	

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1. Watercourse characteristics at pipeline crossing:

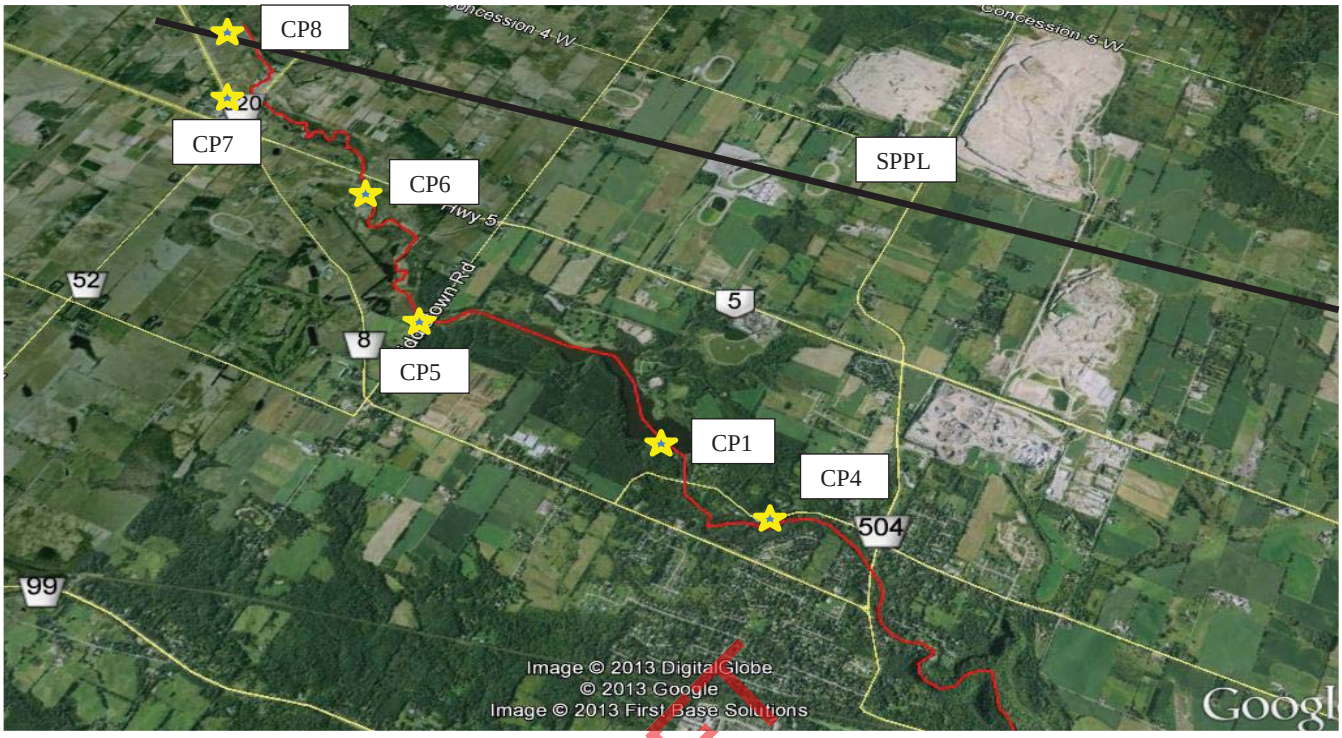
Estimated velocity		**Dimensions**		**Other**	
Fall:	1m/s	Avg. Width: Avg. Depth: Max. Width:	10m 1m 35m	Bed Material:	rock/rubble/ silt/sand

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.



Spencer Creek Control Points

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8
Harvest Rd
Rock Chapel Rd
Sydenham Rd
Creighton Rd
King St W
99
Olivet St
Osler Dr
CP3
Olympic Dr
York Rd
Coates Dr
CP2
Old Ancaster Rd
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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7	

	Control Point		
	CP1	CP2	CP3
Access/ Location	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. **Should try and stop oil before entering into Christies Conservation area, (swimming and picnic areas).** **Gate across driveway could be locked.**	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	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 **Boom 1000' to direct oil to one side of dam.**	Heavy booms Skimmers Dispersants	Heavy Booms Skimmers Dispersants
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Watercourse Crossing # Map 133 - Mile 122.7		
	Control Point		
	CP7	CP8	CP9
Access/ Location	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).**	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.	
Site	Control point is 15m east of bridge at meander running north. Good anchorage on both sides. 12m wide, 1m deep, .2m/s.	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.	
Containment Method	Skimmers Foam booms Dispersants	Skimmers Foam booms Dispersants	
Distance to Containment Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Spencer Creek Tributary A and B
	Watercourse Crossing #	Map 133-Mile 126.5
	Location	Town of Flamborough)

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	

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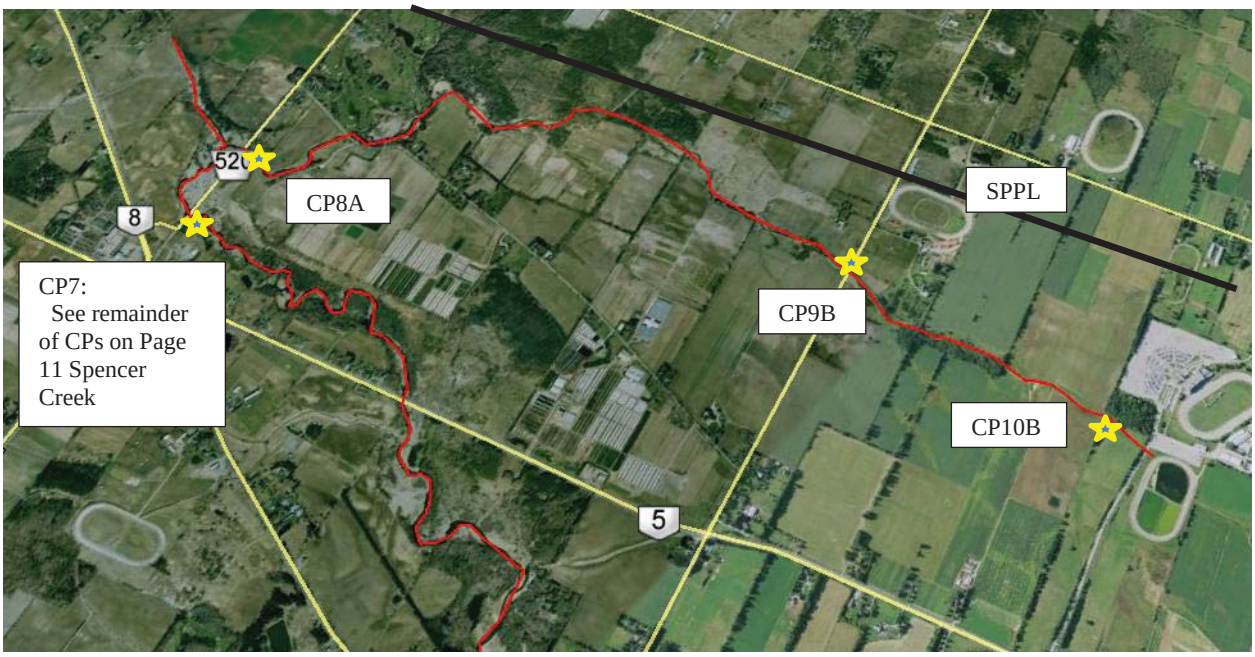
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.3m/s	Avg. Width: Avg. Depth: Max. Width:	5m .75m 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: 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.**



Spencer Creek Tributary A & B Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.6		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5		
	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, rivate 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 Disperants Skimmers
Distance to Containment Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Spencer Creek Tributary A and B Watercourse Crossing # Map 133 - Mile 126.5	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus tributary A Watercourse Crossing #: Map 133-Mile 130.7 Location: Town of Flamborough

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	

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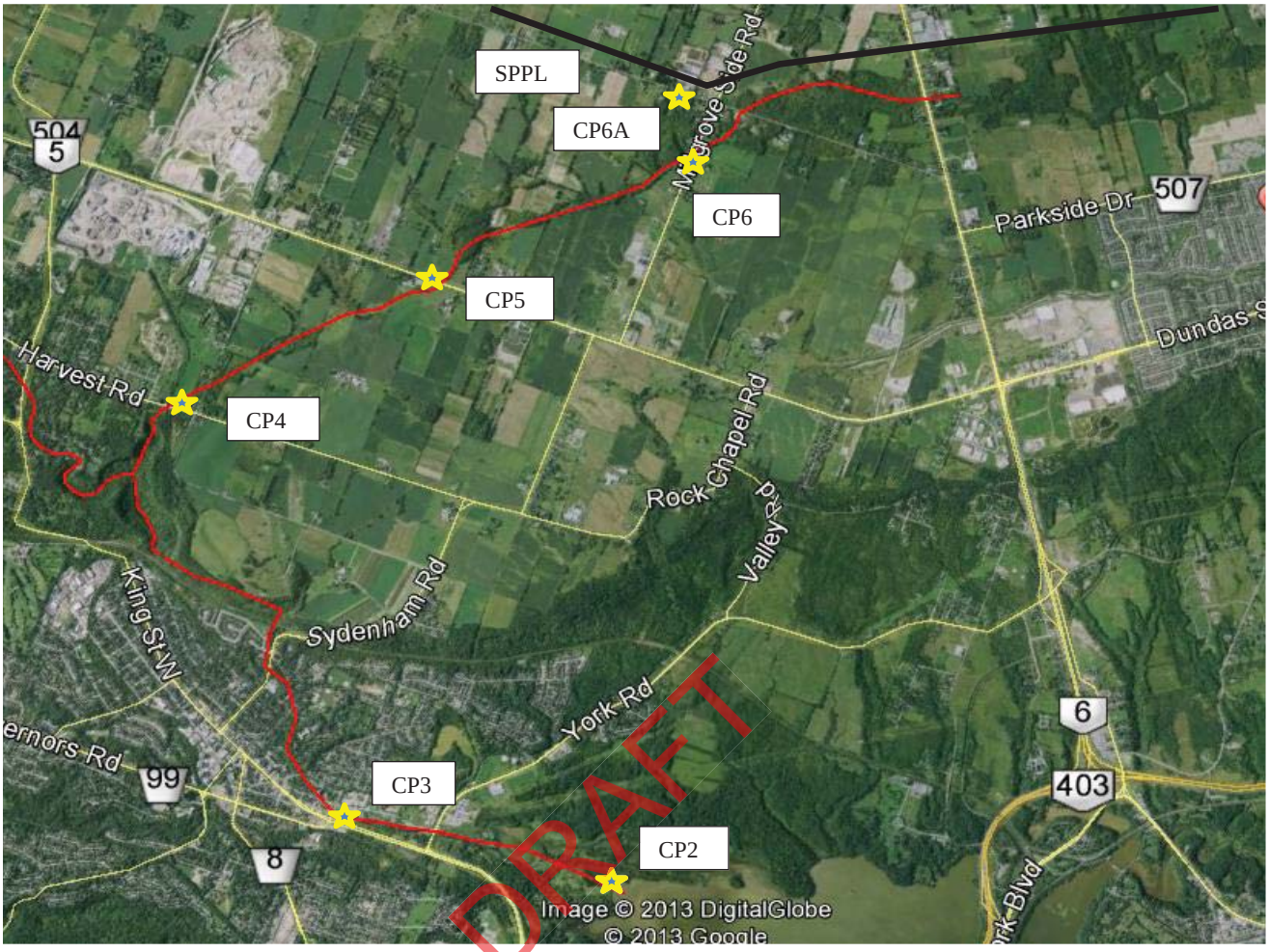
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.1m/s	Avg. Width: Avg. Depth: Max. Width:	2m .3m 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.



Logie's Creek Control Points

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Logie's Creek plus Tributary A Watercourse Crossing # Map 133 - Mile 130.7		
	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Rock Chapel Creek / Borer's Creek
	Watercourse Crossing #	Map 133-Mile 130.8
	Location	Town of Flamborough

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	

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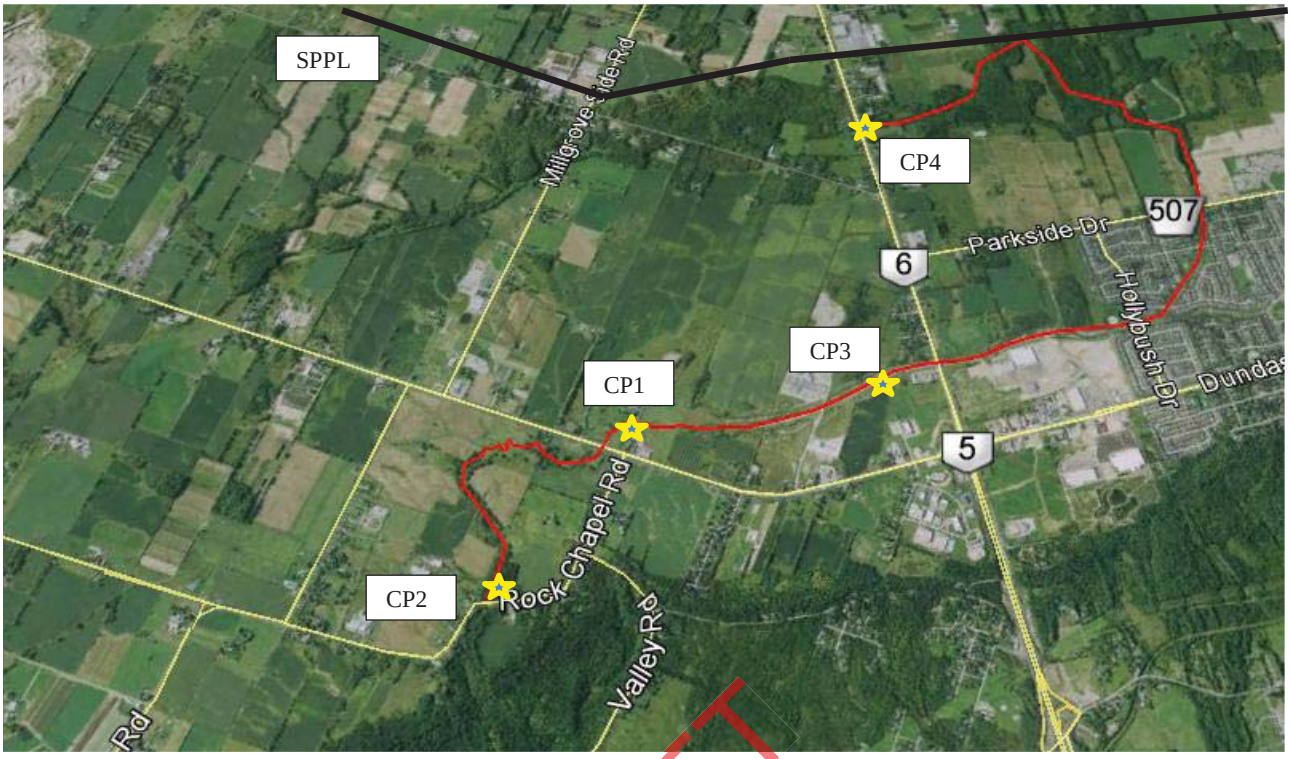
1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Winter:	.5m/s	Avg. Width: Avg. Depth: Max. Width:	1m .2m 1.5m	Bed Material:	muck/silt

2. Potential environmental sensitivities:

Flows out of large wetland into smaller wetland on east side of Hwy 6.
Note: Go to CP1 first although it is before CP2 as large falls start 20m after CP1.



Rock Chapel & Borer`s Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Rock Chapel Creek / Borer's Creek Watercourse Crossing # Map 133 - Mile 130.8		
	Control Point		
	CP1	CP2	CP3
Access/ Location	CP1 is before CP2 because of Borer's Falls. 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 coarses.**	Access on west side of Rock Chapel Rd. Pull off road on east side of bridge with the creek approx. 4m to the west.	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.
Site	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.	Control at bridge. There is little anchorage except the bridge itself. Water is very fast. 2m/s, .5m deep, 3m wide. **Use extreme caution as there is a 30m waterfall 40m downstream.**	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.
Containment Method	Booms Skimmers Logs or planks to block spillgate	Booms Skimmers	Booms Foam Dispersants Skimmers
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Rock Chapel Creek / Borer's Creek Watercourse Crossing # Map 133 - Mile 130.8		
	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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Page for drawing of Map 137 named: SPPL 15

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing #: Map 137 - Mile 135.3
	Location: Burlington

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

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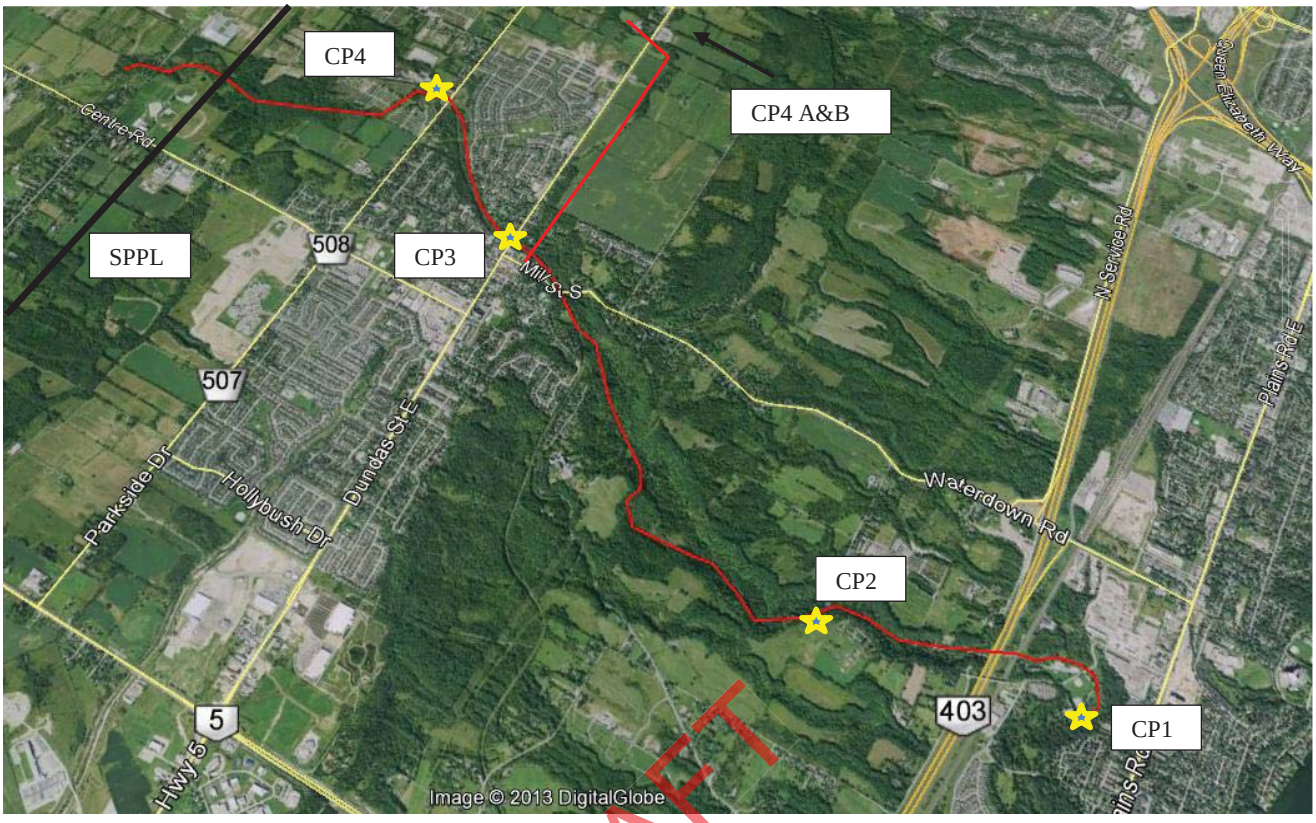
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**
Summer:	.5m/s	Avg. Width: Avg. Depth: Max. Width:	4m .2m	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 Acadamy south of Waterdown backs onto the creek.



Grindstone Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing # Map 137 - Mile 135.3	

	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 unchorage	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Watercourse Crossing # Map 137 - Mile 135.3	

	Control Point		
	CP4	CP5	CP6
Access/ Location	Access on north side of Parkside Dr. - can get vechicle 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		

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Grindstone Creek Tributaries Watercourse Crossing # Map 137 - Mile 137
	Location Burlington

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

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1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Summer:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	1m .1m 1.5m	Bed Material:	rock/rubble

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 Acadamy south of Waterdown backs onto the creek.

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Tributaries Watercourse Crossing # Map 137 - Mile 137		
	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Grindstone Creek Tributaries Watercourse Crossing # Map 137-Mile 137	

	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 ease 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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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name	Bronte Creek (Twelve Mile Creek)
	Watercourse Crossing #	Map 142-Mile 140

See Section 09-1606 Pipeline Spill Response Tactics-Bronte Creek for detailed plans

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Sixteen Mile Creek and East Sixteen Mile Creek Watercourse Crossing # Map 147-Mile 144

See Section 09-1607 Pipeline Spill Response Tactics- 16 Mile Creek for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Joshua's Creek Watercourse Crossing #: Map 163-Mile 148.2 Location: Oakville

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

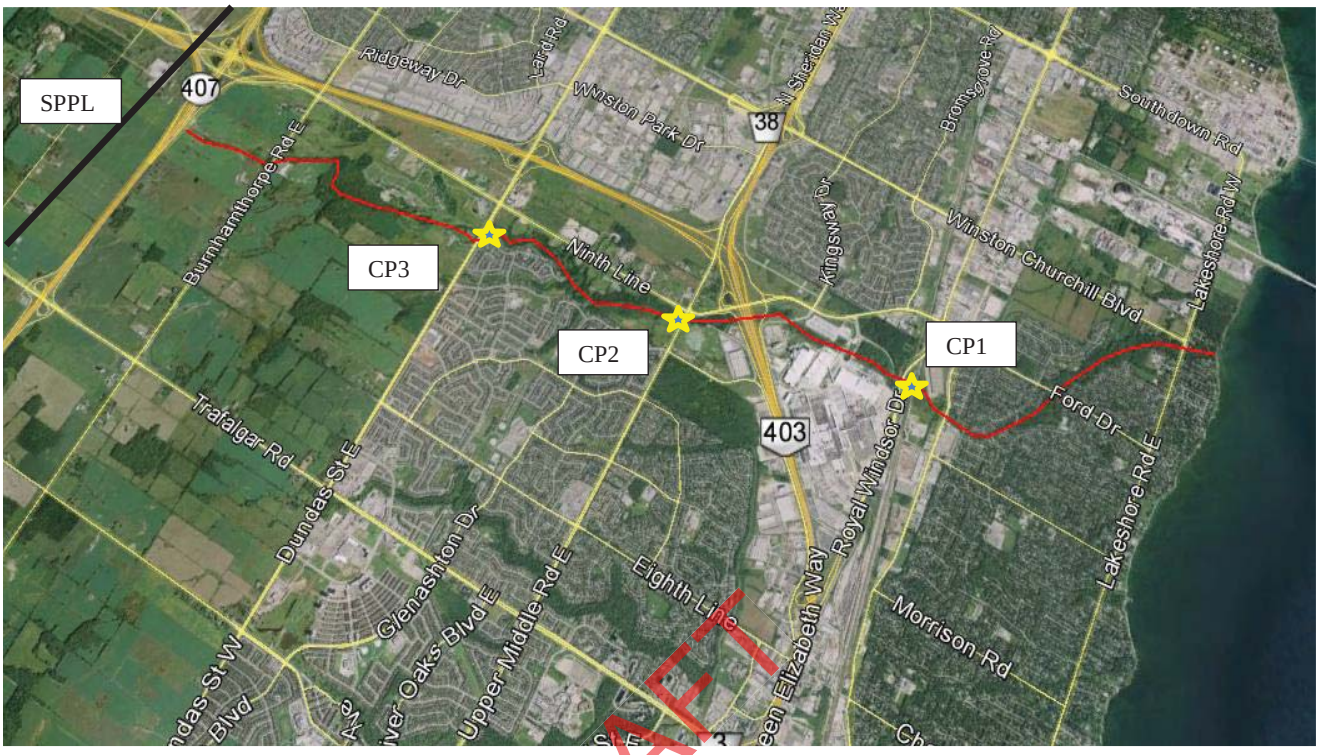
DRAFT

1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	2m .2m 3-4m	Bed Material:	silty stone

2. Potential environmental sensitivities:

Creek runs through farmlands. Bisects 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.



Joshua`s Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Joshua's Creek Watercourse Crossing # Map 163-Mile 148.2	

	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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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek (Tributary of Credit River) Watercourse Crossing #: Map 163-Mile 149.2 Location: Mississauga

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	

DRAFT

1. Watercourse characteristics at pipeline crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	1.5m .2m 10m	Bed Material:	Silt

2. Potential environmental sensitivities:

Highly urbanized area.

Major portion of creek is buried.



Loyalist Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek Watercourse Crossing # Map 163 - Mile 149.2	

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Loyalist Creek Watercourse Crossing # Map 163 - Mile 149.2	

	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		

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Sawmill Creek Watercourse Crossing # Map 163 - Mile 150.8
	Location Mississauga

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	

DRAFT

1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	1m .02m 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.



Sawmill Creek Control Points

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**		Watercourse Name: Sawmill Creek Watercourse Crossing # Map 163 - Mile 150.8

	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

DRAFT

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Sawmill Creek Watercourse Crossing # Map 163-Mile 150.8	

	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	

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Mullet Creek Watercourse Crossing # Map 163 - Mile 152.3
	Location Mississuaga

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	

DRAFT

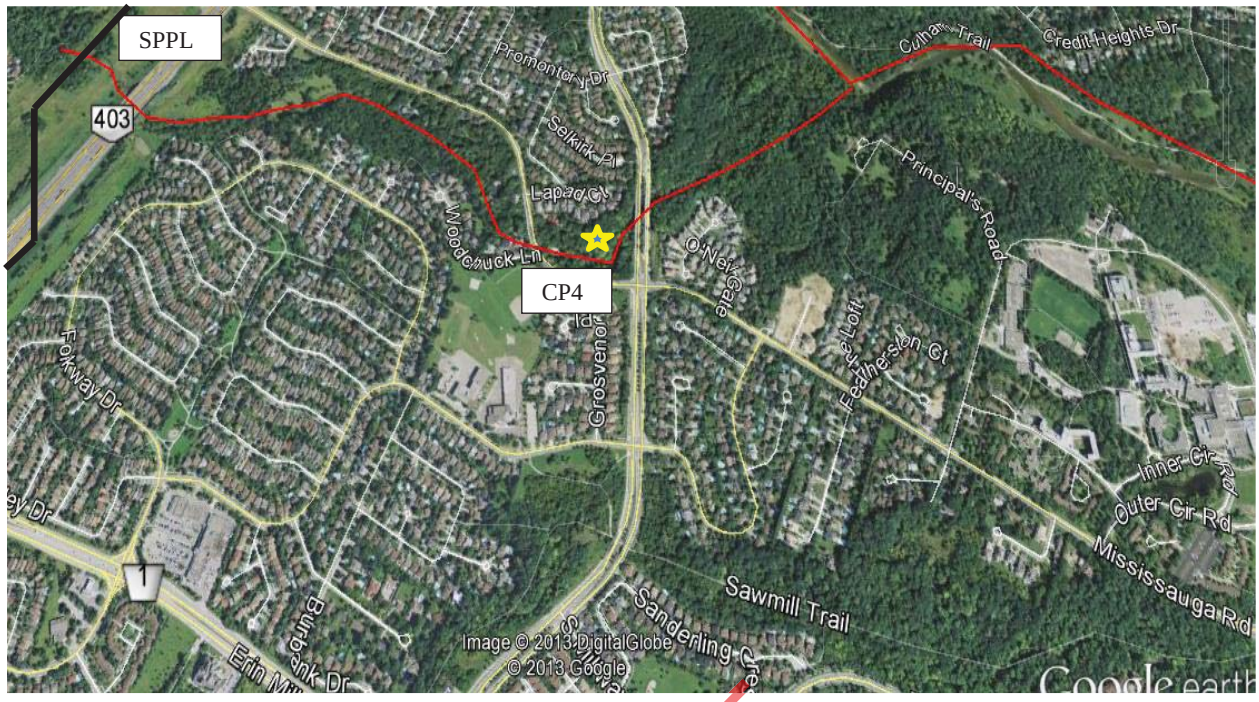
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	2m .2m 10m	Bed Material:	silt stone

2. Potential Environmental Sensitivities:

Urbanized. Mature ravine woodlands.

Joins Credit River in Promentory Woods.



Mullet Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mullet Creek Watercourse Crossing # Map 163 - Mile 152.3

	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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name	Credit River
	Watercourse Crossing #	Map 163-Mile 152.5
	Location	Mississauga

See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Tributary to Credit River Watercourse Crossing # Map 163 - Mile 152.7
	Location Mississauga

See Section 09-1603 High Water Action Plan & Pipeline Spill Response Tactics-Credit River for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155 Location: Mississauga

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	

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1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.02m/s	Avg. Width: Avg. Depth: Max. Width:	2m .02m 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.



Mary Fix Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155	

	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			

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Mary Fix Creek Watercourse Crossing #: Map 163 - Mile 155		
	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	- Absorbants - Vacuum pump		
Distance to Control Point			

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Cooksville Creek Watercourse Crossing # Map 163 - Mile 155.5

See Section 09-1608 Pipeline Spill Response Tactics-Cooksville Creek for detailed plans

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name: Cooksville Creek Tributary Watercourse Crossing # Map 163 - Mile 156

See Section 09-1608 Pipeline Spill Response Tactics-Cooksville Creek for detailed plan

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Little Etobicoke Creek Watercourse Crossing # Map 163 - Mile 157.5
	Location Etobicoke

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

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1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	3m .5m 4m	Bed Material:	silt/gravel

2. Potential Environmental Sensitivities:

Flows through highly industrialized area

Flows through the small urban parks of Rathwood, Applewood Hills and Willow Creek.



Little Etobicoke Creek Control Points

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Little Etobicoke Creek Watercourse Crossing # Map 163 - Mile 157.5	

	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		- south side - small barricade - 100m down before first bend - 3m wide - .5m deep	- small pool north side - 4m wide - .4m deep
Containment Method		- Absorbants - vacuum pump	- Absorbants - vacuum pump
Distance to Control Point		100m	20m

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Etobicoke Creek Watercourse Crossing # Map 163 - Mile 158.8
	Location Etobicoke

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See Section 09-1604 High Water Action Plan & Pipeline Spill Response Tactics-Etobicoke Creek for detailed plans

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This page for drawing of Map 170A named: SPPL 19

This page for drawing of Map 170B named: SPPL 20

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SARNIA PRODUCTS PIPELINE Pipeline Spill Response Tactics	Watercourse Name Mimico Creek Watercourse Crossing # Map 170-Mile 162.2

See Section 09-1609 Pipeline Spill Response Tactics- Mimico Creek for detailed plans

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name Humber River / Emery Creek Watercourse Crossing # Map 170 - Mile 166
	Location Etobicoke

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See Section 09-1605 High Water Action Plan & Pipeline Spill Response Tactics- Humber River for detailed plans

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169
	Location: Etobicoke

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

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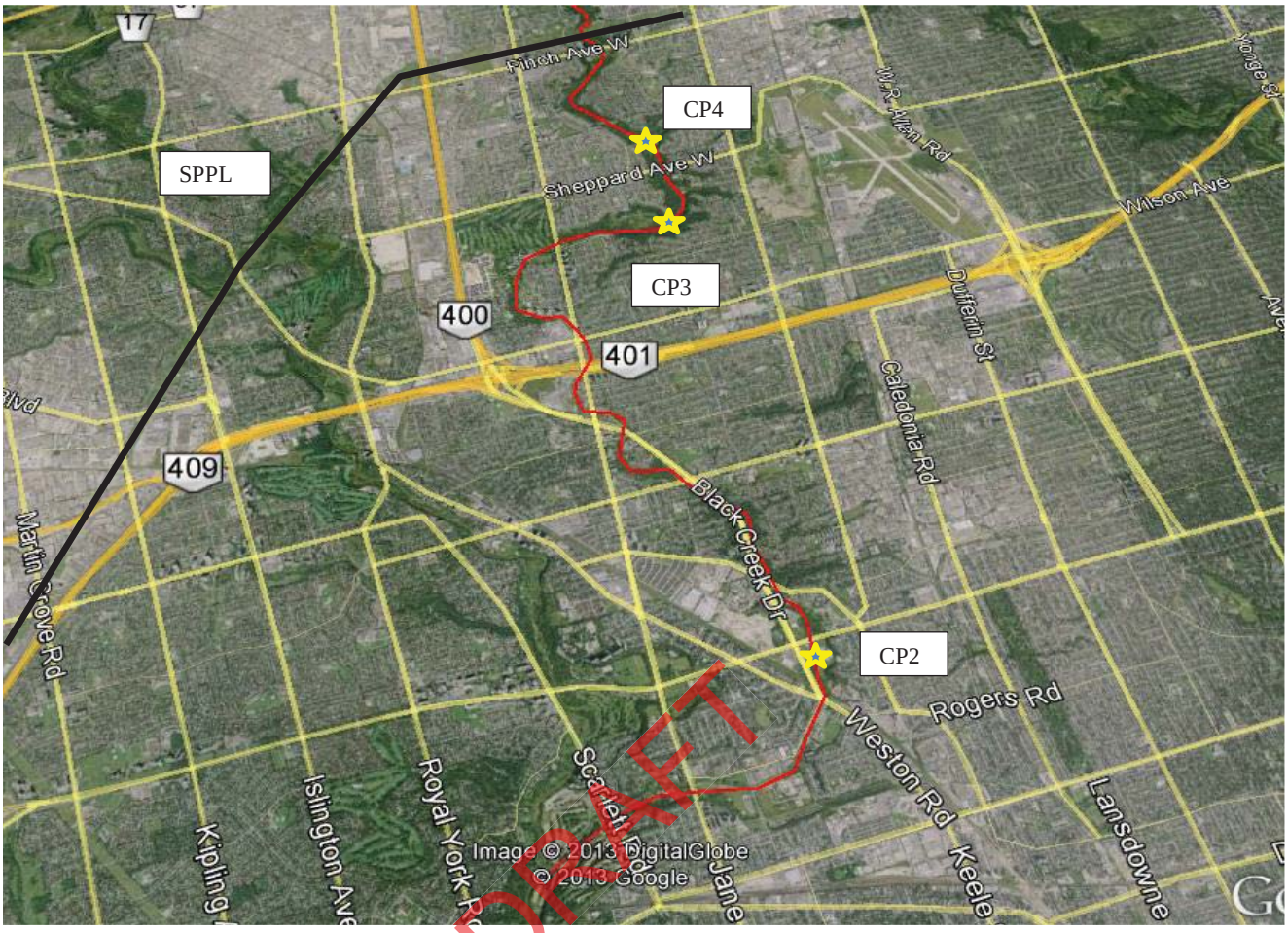
1. Watercourse Characteristics At Pipeline Crossing:

Estimated velocity		**Dimensions**		**Other**	
Fall:	.2m/s	Avg. Width: Avg. Depth: Max. Width:	4m .2m 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.
Bisects 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.



Black Creek Control Points

SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169	

	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 Eglington 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

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SARNIA PRODUCTS PIPELINE **Pipeline Spill Response Tactics**	Watercourse Name: Black Creek Watercourse Crossing #: Map 170 - Mile 169

	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		

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