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August 12, 2016

Environmental Services, Imperial
505 Quarry Park Blvd. SE. P.O. Box 2480, Station M
Calgary, AB T2C 5N1

Attention: Tobiah Newton, Project Manager

File Number N7L1-1836
Type of Operation CLASS B - INDUSTRIAL

Dear Mr. Newton,

An inspection of the Imperial Oil Resources Water Licence N7L1-1836 (expiry on March 30, 2020) was conducted on July 27, 2016. Specifically, the Water Licence was inspected to ensure that the terms and conditions were met. Enclosed is a copy of the Inspection Report (8 pages) for your review and records.

No violations/non-compliances were identified, however please take note of the concerns and observations detailed in the Inspection Report.

A copy of this report will be sent to the Inuvialuit Water Board for their review and public records. If you have any questions/concerns regarding the enclosed, please do not hesitate to contact me at (867) 678-6676.

Sincerely,

Philippe Thibert-Leduc
Water Resource Officer
Environment and Natural Resources
Inuvik Region

Cc: Stephen Charlie – Superintendent, GNWT ENR Inuvik Region
Mardy Semmler – Executive Director, Inuvialuit Water Board
Bijaya Adhikari – Science and Regulatory Coordinator, Inuvialuit Water Board



INDUSTRIAL WATER USE INSPECTION REPORT

Enclosure: Industrial Water Use Inspection Report (8 pages)

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INDUSTRIAL WATER USE INSPECTION REPORT

LICENCE #:	N7L1-1836	EXPIRY DATE:	March 31, 2020
LICENCEE:	Imperial Oil Resources	PREVIOUS INSPECTION:	July 31, 2013 (INAC)
COMPANY REP:	Tobiah Newton, Project Manager	INSPECTION DATE:	July 27, 2016

WATER SUPPLY

Source:	Unnamed surface water lake on site	Quantity Used:	N/A
Owner/Operator:	Imperial Oil Resources	Meter Reading:	N/A

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**

Intake Facilities	N/A	Storage Structures	N/A	Treatment Systems	N/A	Recycling	N/A
Flow Meas. Device	N/A	Conveyance Lines	N/A	Pumping Stations	N/A	Chem. Storage	N/A
Water Delivery Truck	N/A	Modifications	N/A				

Water Supply Comments:

- No concerns to report with regards to water use. The old water source was inspected and no issues could be observed around it (Figure 1). The access road towards the lake and the gravel pad on the south end of the lake are still in place and pose no threat to the water source. The substrate on the south side of the lake was natural looking and no environmental issues could be observed. There were many signs of wildlife using the water source and the area was well vegetated and appeared to be undisturbed.

WASTE DISPOSAL – SEWAGE

Disposal Method		Sewage Lagoon					
Mechanical	N	Camp Sump	N	Natural Water Body	N	Wetland Treatment	N
Continuous Discharge	N	Intermittent Discharge	N	Seasonal Discharge	Y	Land Spread	N
Accelerated Biological	N	Other	N/A				

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**
Y - Yes **N - No**

Discharge Quality	N/A	Decant Process & Structures	N/A	Discharge Measurement Device	N/A
Freeboard	N/A	Sludge Disposal Method	N/A		



INDUSTRIAL WATER USE INSPECTION REPORT

Periods Of Discharge	N/A	SNP Samples Collected	N/A
Effluent Discharge Rates	N/A		

Sewage Comments:

- The old DEW Line site sewage lagoon and the Imperial Oil Resource (Figure 2) lagoon appeared to be in acceptable condition (e.g. smell, coloration banks). The freeboard level stood well above the 1 meter limit as per the Water Licence. The sewage lagoon banks were fully vegetated and discharging naturally into nearby wetlands northwest of the lagoons and towards the Mackenzie River.
- There were no erosion, run-off or leakage concerns at the time of the inspection.
- It is understood that the sewage lagoon has not been used for some time.

WASTE DISPOSAL - SOLID WASTE

Disposal Method		Off-site disposal					
Open Dump	N/A	Landfill	N/A	Burn & Landfill	N/A	Underground	N/A
Offsite Removal	N/A	Other	N/A				
Owner / Operator	Imperial Oil Resources						

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**
Y - Yes **N - No**

Runoff Diversion	N/A	SNP Samples Collected	N/A
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Solid Waste Comments:

- Overall, the site was litter free except for some sparse metal debris in some cases, especially at Area F. This should be rectified when observed in the field during future work so that it does not pose a risk for wildlife in the future and prevent revegetation.
- There was a large amount of contaminated soil bags and earthpiles on site at the time of the inspection around the north side of Area F – South Regrade Area (Figure 3). The bags and soil appeared to be well contained and stored in a proper berm (Figure 4). No erosion and sediment control or run-off issues were identified with regards to the contaminated soil bags.

FUEL STORAGE

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**

Owner:	Imperial Oil Resources	Operator:	Imperial Oil	Condition of tanks:	N/A
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			Resources		
Berms & Liners	N/A	Water within Berm:	N/A	Evidence of Leaks:	N/A
Drainage Pipes	N/A	Pump Station and Catchment Berm	N/A	Runoff Diversion	N/A
Pipeline Condition	N/A				

Fuel Storage Comments:

- No concerns to report with regards to fuel storage.

SURVEILLANCE NETWORK PROGRAM

Samples Collected Licencee	Yes			
Samples Collected ENR	No			
Signs Posted: SNP	No	Warning	No	

Surveillance Network Program Comments:

- The last request to discharge standing water from borrow areas as a result of surface water runoff was submitted by the Licensee on August 28, 2015. The request was granted by the Inspector as the sampling results came back within Water Licence criteria and met discharge requirement.

GENERAL CONDITIONS/REPORTS/PLANS

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**

C & R Plan	N/I	Records & Reporting	N/I	Final Report	N/A
Geotechnical Inspection	N/A	Posting, Signage	N/I	Contingency Plan	N/I
Restorations Activities	A	Spills	A ^{1,2}	O&M Plan	N/A
Maintenance	N/A	Modifications	N/A	Annual Report	N/I

General Condition Comments:

- On July 27, 2016, ENR Water Resource Officer (Inspector) Philippe Thibert-Leduc inspected Tununuk Point to assess the proponent's compliance with Water Licence N7L1-1836 and associated terms and conditions. Specifically, Areas A (Landfill), B (Landfill), D (Tank Farm), F (Borrows/Airstrip) and H (Barge Dock) were inspected, as per the Bar-C Tununuk Point Site Plan provided by the Licensee.
- July 27, 2016 forecast was sunny with a high of 25°C and low of 11.4°C, with no precipitation. Total precipitation for the region this month was 53.9 mm as of the time of the inspection.
- ¹Spill Report Number 15-348 was inspected on-site for the first time by the Inspector since the spill was reported on August 19, 2016. At the time, the Licensee reported that approximately 1,250L of

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surface run-off water originating from a contaminated soil treatment cell escaped into the surrounding environment on August 16, 2015. The site was inspected and no issues could be observed. Samples collected by the Licensee on September 23, 2015 also revealed no immediate concerns.

- ²There appeared to be an oily sheen at Area A, southwest of the site (Figure 5). It smelled faintly of hydrocarbons and should be further assessed by the Licensee once there are crews on the ground.
- At the time of the inspection, no work had been done at Area H (Barge Dock). The dock is eroded in some areas and discharging sediments and materials into the Mackenzie River (Figure 6). Overall condition and stability of the dock should be closely monitored until its final removal.
- All areas inspected were clear of equipment and structures. All that remained on site were contaminated soil bags which were properly stored and sealed.
- Overall the remediation work that has been ongoing at Areas A, B, D and F appear to be holding, i.e. no major erosion and sediment issues could be identified, as well as run-off escaping the sites. There is some ponding along Area F however they were well vegetated and inhabited by wildlife (Figure 7). Some ponding was also observed inside Area F. In addition, the northwest corner of Area F should be further assessed and monitored by the Licensee as there appears to be some disturbed soil outside of the former borrow, uphill from the natural lake north of the old water source.
- The erosion and sediment control (ESC) best management practices in place at Areas A and B appeared to be effective and still in good condition. Some revegetation is occurring, mostly downhill (Figure 8). Revegetation and stability/condition of the ESC measures in place will have to be closely monitored through the years given the elevation of the site and the strong exposure to weathering.
- There were no other violations/non-compliance observed.

MATTERS FOR FOLLOW UP

- Oily sheen at Area A, ESC measures long term at Area A and B, soil disturbance at northwest corner of Area F, and erosion and sedimentation of the dock at Area H.

NON-COMPLIANCE/VIOLATIONS OF ACT OR LICENCE

- No non-compliances/violations to report.

Inspector's Signature: _____

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INSPECTION IMAGES

Figure 1

Old water source.



Figure 2

Imperial Oil Resources sewage lagoon.





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Figure 3

Earthpiles and soil bags.



Figure 4

Earthpiles and berm.





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Figure 5

Oily sheen at Area A.



Figure 6

Erosion and sedimentation from the dock at Area H.





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Figure 7

One of the many ponds around Area F.



Figure 8

Area B, ESC measures and light revegetation taking place.

