

WATER LICENCE INSPECTION FORM

☒ Original

☐ Follow-Up Report

Licensee	Licensee Representative
Hamlet of Resolute Bay	Bhabesh Roy
Licence No. / Expiry	Representative's Title
3BM-YRB1621	Municipal Engineer
Land / Other Authorizations	Land / Other Authorizations
Date of Inspection	Inspector
July 13, 2019	Joseph Monteith, and Jeremy Fraser
Activities Inspected	
<div><input type="checkbox"/> Camp<input type="checkbox"/> Drilling<input type="checkbox"/> Mining<input type="checkbox"/> Construction<input type="checkbox"/> Reclamation<input type="checkbox"/> Fuel Storage</div> <div><input type="checkbox"/> Roads/Hauling<input checked="" type="checkbox"/> Other: Sewage Disposal Facility<input type="checkbox"/> Other:</div>	

Conditions: A- Acceptable U-Unacceptable C-Concern NI-Not Inspected NA- Not applicable

PART:	Item No.*	Condition	Observation No.*
A: SCOPE, DEFINITIONS AND ENFORCEMENT		A	
B: GENERAL CONDITIONS		C	
C: CONDITIONS APPLYING TO SECURITY		NI	
D: CONDITIONS APPLYING TO WATER USE		A	
E: CONDITIONS APPLYING TO WASTE DISPOSAL AND MANAGEMENT		C	1-6
F: CONDITIONS APPLYING TO MODIFICATIONS		NI	
G: CONDITIONS APPLYING TO CONSTRUCTION		C	
H: CONDITIONS APPLYING TO EMERGENCY RESPONSE AND CONTINGENCY PLANNING		C	
I: CONDITIONS APPLYING TO ABANDONMENT, RECLAMATION AND CLOSURE PLANNING		NI	
J: CONDITIONS APPLYING TO MONITORING		C	
SCHEDULES		NI	
<i>*The item number corresponds with specific conditions within the licence and the observation number corresponds with specific comments provided below.</i>			
Samples taken by Inspector:		Location(s):	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Latitude: 74° 42' 00" N Longitude: 94° 50' 00" W	

SECTION 1	<input checked="" type="checkbox"/> Comments (s.__)	<input type="checkbox"/> Non-Compliance with Act or Licence (s.__)	<input type="checkbox"/> Action Required (s.__)
BACKGROUND <p>Application is by the Government of Nunavut – Community and Government Services, on behalf of the Government of Nunavut – Department of Economic Development and Transportation (the Licensee), for the renewal, for a term of five (5) years, as well as the amendment of an expired, Type “B” Water Licence (Licence No. 3BM-YRB0308/NWB3YRB0308), to allow for the continued operation of a Sewage Disposal Facility (the Facility). The Facility in question is located within the Hamlet of Resolute Bay, in the Qikiqtani Region, Nunavut. The Licence under which the Facility operated was issued on November 30, 2003 and expired on November 30, 2008. The Expired Licence allowed for the use of Water and the deposit of Waste in support of a Municipal undertaking that included the operation of a potable water treatment facility, solid waste disposal facility, and sewage treatment facility. The scope of the Renewal-Amendment Application, however, excluded the portable water supply facility and several other facilities and/or activities either discontinued or currently covered under distinct licences issued to the Hamlet of Resolute Bay or other entities.</p>			
Inspector Statement <p>On July 13, 2019 at 10:30 am, A Water Licence Inspection was conducted by Water Resource Officer Joseph Monteith at the Resolute Bay Sewage Disposal Facility at the Resolute Bay Airport. This inspection was complete on July 13, 2019 at 3:10pm.</p>			
General Condition <p>On July 12, 2018 Richard Dwyer, Nunavut Water Board, Manager of Licencing, emailed Water Resource</p>			



Officer(WRO) Monteith a copy of Resolute Bay Airport’s 2017 Annual Report. Satisfying Part B: Item 1 of the Water Licence. Although an Annual Report was submitted within the time required, not all aspects of submission requirements were achieved. As detailed in Richard Dwyer’s review of the submission it was noted that Part H, Item 3 and Part H, Item4, Part D, Item 3 was not satisfied. Also the amount of water consumption can be misleading as the licence states only 1 cubic metre per year for sampling, they reported above the 1 cubic metre per year, due to the mixed submission of water consumption for 3BM-RUT1520 rather than 3BM-YRB1621. The Hamlet does not have a water/waste flow metre and does not articulate its calculation for waste deposited into the Sewage Disposal Facility.

Sewage Disposal Facility

- 1.The Sewage Disposal Facility is a non-engineered 3 cell lagoon.
- 2.Two yellow triangle signs were observed contrary to Part B: Item 5. (See Photo #1 & 2).
- 3.The Freeboard was above 1 metre (See Photo #3).
- 4.Signs of over flow were observed (See Photo #4). Spill report 2017-127 was reported on April 25, 2017 for 50,000 Litres of waste water from an overflow event at the Sewage Lagoon.
- 5.Signs of Slumping and Erosion were observed (See Photo #5). This observation appears to not have been addressed as requested in past inspection reports. The state of the walls appears to have gone into further decline.
- 6.No Flow metre on water intake or waste discharge. On October 26, 2018 Jayson Mablick, Government of Nunavut(GN), Community Government and Services(CGS) emailed WRO Monteith a excel spreadsheet copy of the Water Consumption Report for the months of January 2019, to September 2019, listing ATCO Truck consumption numbers total of 515073 Litres consumed. This figure should be articulated as the amount discharged into the Sewage Disposal Facility (See Photo #6). But may not take into consideration the amount of water withdrawn for other purpose such as dust suppression.

☐ Comments

☐ Non-Compliance with Act or Licence

☒ Action Required

The following information is a summary of the Actions Required by the licensee to promote and ensure compliance:

- articulate how you calculate the amount of waste deposited into the Sewage Disposal Facility.
- label the two monitoring posts as listed in the water licence
- provide all requirements for submission of Annual Reports
- maintain the 1 metre free board at the Sewage Disposal Facility
- repair the walls of the Sewage Disposal Facility
- notify WRO Monteith at Joseph.Monteith@Canada .ca when decanting the Sewage Disposal Facility.
- report to the Spill Line when overflow is observed at the Sewage Disposal Facility
- the Licensee is reminded to remain diligent to prevent wastes from entering water, the environment, and to adhere to the discharge criteria listed in the licence.

SECTION 3

☐ Comments

☒ Non-Compliance with Act or Licence

☐ Action Required

Part B: Item 5

The Licensee shall, within ninety (90) days after the first visit by an Inspector, following issuance of the Licence, post the necessary signs to identify the stations of the “Monitoring Program”. All signage postings shall be in the Official Languages of Nunavut.

Part D: Item 5

The Licensee shall advise an Inspector at least ten (10) days prior to initiating any decant of the Sewage Disposal Facility.

Part D: Item 6

The Sewage Disposal Facilities shall be maintained to the satisfaction of an Inspector, and operated in such a manner as to prevent erosion and structural failure.

Licensee or Representative	Inspector's Name
Bhabesh Roy, Todd MacKay	Joseph Monteith
Signature	Signature
Date	Date
	November 25, 2019

CC: Licensing Department, NWB
Justin Hack, Manager of Field Operations, CIRNAC

PHOTO LOG

Date	Camera	Inspector	
July 13, 2019	Nikon CoolPix	Joseph Monteith	
Photo Log #1	Location		
Photo 1	Resolute Bay, NU		
			
Description: Trucks discharge waste into Sewage Disposal Facility. no titling convention on sign, and in the official languages of Nunavut.			


Photo Log #	Location
Photo 2	Resolute Bay, NU
	
Description: no titling convention on sign, and in the official languages of Nunavut.	



Photo Log #	Location
Photo 3	Resolute Bay, NU
	
Description: Walls appear to have not operated as intended. Historical overflow at site. Damage to the walls of lagoon.	

Photo Log #	Location
Photo 4	Resolute Bay, NU
	
Description: The white sludge along the walls of the Sewage Disposal Facility shows signs of overflow	

Photo Log #	Location
Photo 5	Resolute Bay, NU



Description: Any decant, unauthorized discharge of the sewage lagoon would migrate though this wet marsh land on its way to the receiving marine environment. Monitoring stations along the way to the coast line.

Photo Log #	Location
Photo 6	Resolute Bay, NU

2019 WATER CONSUMPTION

	January	February	March	April	May	June	July	August	September	October	November	December
16	65,027	111,047	90,680	133,664	121,121	128,649	95,226	78,765	76,454			
17	94,348	136,577	160,649	118,615	148,771	115,803	92,005	77,699	90,917			
18	105,759	169,020	88,060	127,056	179,082	127,863	100,967	82,898	92,408			
19	120,182	116,541	132,060	125,505	157,527	119,140	103,279	80,478	93,645			
20	85,710	111,644	106,170	125,505	100,080	96,302	97,660	79,156	95,006			
21	108,742	124,216	122,361	127,805	150,813	108,465	101,691	87,517	100,547			
22	93,420	113,329	124,877	134,460	150,436	108,560	86,125	72,529	101,078			
23	143,572	134,055	136,361	121,586	140,867	113,904	100,509	81,378	96,544			
24	74,511	120,743	0	115,059	149,524	104,638	93,311	69,893	124,225			
25	94,760	105,093	248,130	120,643	145,910	97,521	95,425	85,367	81,318			
26	92,460	120,297	106,568	125,258	157,039	103,823	94,855	60,198	100,976			
27	110,579	11,576	136,679	129,260	162,504	96,451	85,976	102,205	100,319			
28	101,156	114,792	102,170	125,145	122,968	103,780	96,846	61,915	98,353			
29	104,624		120,775	136,273	65,051	102,658	89,848	98,394	94,580			
30	106,805		120,657	118,632	235,154	111,854	99,666	62,294	91,376			
31	104,693		124,768		139,439		91,188	77,057				
Total Imp G	3,198,991	3,192,969	3,641,009	3,678,644	4,314,329	3,904,175	3,034,591	2,651,846	2,700,964	1,359,739	0	0
										Yearly Total Imp. G		31,677,257
Total Liters	14,542,933	14,515,556	16,552,391	16,723,483	19,613,371	17,748,770	13,795,554	12,055,557	12,278,852	6,181,509	0	0
										Yearly Total Liters		144,007,978
ATCO Truck												
Liters	306,862	554,170	875,579	461,884	375,508	430,970	732,377	626,453	515,073	0	0	0
Utilidor	14,236,071	13,961,387	15,676,812	16,261,600	19,237,863	17,317,800	13,063,177	11,429,105	11,763,779	6,181,509	0	0

Description: Review ATCO Truck on bottom. From January to September 2019. Possible 515073 Litres deposited into Lagoon.