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2019 ANNUAL NUNAVUT WATER BOARD

REPORT FOR CAM-M

FOR THE
North Warning System

Contract # W8485-100224/001/NX
SOW Ref: 16.F.5.d

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EXECUTIVE SUMMARY IN ENGLISH FOLLOWS

Una 2019 Nunavut Water Board-kut makpiraanga Raytheon Canada-m hannaiaqtaqtiya ukuat takuyahangat: Department of National Defence. Malirutahauman titiqani ittuq Part B "General Conditions". Nunapta imaanik imiqtautihannik makpiraat 3BC-CAM 0919 January-min ungavauhiquuni 8BC-CAM 1929-mun Sepetember 2019-mun. Una makpiraaq January-min December 2019-mun naahimayuq.

Raytheon angalataat munariblugu Naalautiqpait (North Warning System) CAM-mi Iqalututiami Nunavutmi. Taamna havaariyaat.

2019-mi CAM-M 1263.9 cubic meters imarmik atuqtuq. 3.4 cubic meters ubluq tamaan. Atauhiahuni imaq atuhaq qalrutariyaat havaahaq amigairman. Imaq atuqtaq 2019-mi mikitqiayuq malirutahani titiqani naunaitkutainni.

CAM-M-mi imaq halumailaq anarlu atautikun havaktauvaktuq. Ilanga halummaktaq aturnaqtuq qurvingnun. Imaq halummaktaq imirnaqtuq. Mikiyuq imaq halummaktaq tuyuutauvaktuq nautiuqtauyuhaq tamaan 2019-mi.

Immam ilanga iliyaq illiaryuamun kuvilaitumun tuyuutaувактуq qanuq itilaanga nautiuqtuhaq. Iluaqtlaanga malirutahani ittuhaq titiqani 8BC-CAM 1929 Part D. Imaq qalupkaqtinnagu illiaryuamin.

Ulurianaqtuat uqhuqyuallu allalu tuyuutauvaktut Nunavungmin qanuq itilaangit inmangaata. Ulurianaqtuat iqqaqtat Qikiqtaaluk Environmental-kunnun tuyuutigivaktait ikayuqtaitigun atilik Veolia. Hitamat qigiunirit battery-nik imalgit 59-lu qattaryuit hunik iktanik imalgit aulativaktait.

Iktat ulurianangituat Iqaluktuutiam iktarvianun ilivaktait. Makpiraanun titirahimayuq naunaittuq.

November 21-2019-mi uqhuqyuaq malruktun qattaryuktun angitiyuq kuviyuq havaktit munaqqirlukamik. Naunaitkutinga titiqqani imaa ittuq: NT-NU Report Number 19-467. Halumaivaktut December 6, 2019-mun aglaan. Kuvivinga nuna kiilu halummaktauniaqtuq.

Uqhuqyuaq kuvinnikkun makpiraaq naamakhuni havaktauyuq halummaktauyuq.

Talvani CAM-M 2019-mi Iqalutuutiammi nunamik tutqikhaiyuat iniyuitkaat huli. Taamna kihian November 21, 2019-mi uqhuq kuviyualuk.



EXECUTIVE SUMMARY IN ENGLISH FOLLOWS



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EXECUTIVE SUMMARY

This 2019 Annual Report for the Nunavut Water Board (NWB) has been prepared by Raytheon Canada Limited (RCL) for the Department of National Defence in order to meet the requirements of Part B "General Conditions", paragraph 1 of its licence. Water licence 3BC-CAM0919 was in effect from 01 January until it was replaced with licence 8BC-CAM1929 on 01-Sep-2019. This report covers 01 January to 31 December 2019.

RCL is the Operation and Maintenance (O&M) Contractor for the North Warning System (NWS), including CAM-M, the attended (manned) NWS radar site located at Cambridge Bay, Nunavut.

The water usage for CAM-M in 2019 was 1263.9 cubic meters. This is an average of 3.4 cubic meters per day, below the maximum of 10 cubic meters per day allowed by the licence 3BC-CAM0919. On one occasion, more than the daily maximum was drawn due to increased site activity. The total water use is below the threshold set in the licence issued in 2019 of 3650 m³ and less than 300 m³ per day allowed by the licence 8BC-CAM1929.

Sewage at CAM-M is processed by the tertiary wastewater treatment system. Some of the treated effluent is recycled as on-site urinal/toilet flush water. The discharged treated effluent is of potable water quality. A sample of the treated effluent was sent for laboratory analysis each month in 2019.

Samples of the water contained in the berms of fuel storage facilities were sent for laboratory analysis and confirmed to be within effluent quality limits of the NWB licence 8BC-CAM1929, Part D, item 11 before the water was pumped out of the berms.

Hazardous waste and waste oil were sent to an approved hazardous waste disposal site outside of Nunavut as required by the licence. The hazardous waste was shipped to Qikiqtaaluk Environmental, through their subcontractor Veolia, 2630, boul. Industriel, Chambly, QC J3L 4V2. Waste sent for disposal included 4 crates of waste batteries and 59 drums of assorted waste.

Non-hazardous domestic solid waste was disposed of at the local landfill through a contract with the Hamlet of Cambridge Bay. RCL has documented authorization from the community for receiving the waste.

One outdoor spill occurred at CAM-M in 2019. NT-NU Report Number 19-467. On 21-Nov-2019, staff were refuelling buildings on-site and inadvertently left a valve open. The open valve allowed a day tank to overfill, spilling approximately 481 L. Remediation work was executed until 06Dec2019. An impacted area remains that will be remediated in 2020.

The Spill Contingency Plan was successfully implemented.

No progressive reclamation work was completed at CAM-M in 2019 other than the response to the 21-Nov-2019 spill.

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1.0 INTRODUCTION

This 2019 Annual Report for the Nunavut Water Board (NWB) has been prepared by Raytheon Canada Limited (RCL) for the Department of National Defence in order to meet the requirements of Part B "General Conditions", paragraph 1 of its licence. Water licence 3BC-CAM0919 was in effect from 01 January until it was replaced with licence 8BC-CAM1929 on 01-Sep-2019. This report covers 01 January to 31 December 2019.

RCL is the Operation and Maintenance (O&M) Contractor for the North Warning System (NWS), including CAM-M. CAM-M is the attended (manned) NWS radar site located at Cambridge Bay, Nunavut.

1.1 Report Details

Licensee: Department of National Defence, Government of Canada
Licence: 3BC-CAM0919 – Type "B" from 01-Jan-2019 until it was replaced on 01-Sep-2019 with 8BC-CAM1929 – Type "B"
Location: CAM-M North Warning System Site, Cambridge Bay, Kitikmeot Region, Nunavut
Report Prepared by: Raytheon Canada Limited, 18-Mar-2020
Time period covered: 01 January to 31 December 2019

2.0 WATER USE

A total of 1263.9 cubic meters was drawn from the water supply lake in 2019. The water usage from January to 01-April averaged 3.4 cubic meters (m^3) per day which is below the maximum of 10 m^3 per day allowed by the licence 3BC-CAM0919. The 10 m^3 limit was exceeded once in 2019 while licence 3BC-CAM0919 was in effect. On 29-Jan-2019, 12.4 m^3 of water was taken. 3.4 m^3 of water was pumped to the site as usual and an additional 9 m^3 of water was taken in the water truck. The total water used in 2019 was below the threshold set in the licence issued in 2019 of 3650 m^3 per year and 300 m^3 per day allowed by the licence 8BC-CAM1929.

See Table 2-1 for the volume of water drawn at CAM-M each month in 2019.

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Table 2-1: Monthly Raw Water Usage at CAM-M in 2019

| Month | Raw water usage (m ³) |
|--------------|-----------------------------------|
| January | 108.1 |
| February | 98.8 |
| March | 99.1 |
| April | 87.7 |
| May | 97 |
| June | 102.3 |
| July | 117.6 |
| August | 109.4 |
| September | 110.6 |
| October | 95.9 |
| November | 130.2 |
| December | 107.2 |
| TOTAL | 1263.9 |

3.0 TREATED SEWAGE DISCHARGE

At CAM-M, the sewage and grey water were both processed through a Cycle-let® advanced tertiary wastewater treatment system. Some of the treated water is recycled as urinal/toilet flush water; the remainder is discharged at the designated outfall and is of potable water quality. See Table 3-1 for the volume of sewage and grey water treated by the Cycle-let® system. See **Section 6.0 – Monitoring Program** for details on sewage effluent monitoring.

Table 3-1: Monthly and Annual Volume of Sewage and Grey Water Treated at CAM-M in 2019

| Month | Volume of sewage and greywater treated then discharged or recycled (m ³) |
|--------------|--|
| January | 103.2 |
| February | 98.8 |
| March | 99.1 |
| April | 87.7 |
| May | 97.0 |
| June | 102.3 |
| July | 117.6 |
| August | 113.9 |
| September | 110.6 |
| October | 95.9 |
| November | 130.2 |
| December | 107.2 |
| TOTAL | 1263.5 |

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4.0 HAZARDOUS WASTE AND WASTE OIL DISPOSAL

Hazardous waste and waste oil were sent to an approved hazardous waste disposal site outside of Nunavut as required by the licence. The hazardous waste was shipped to Qikiqtaaluk Environmental, through their subcontractor Veolia, 2630, boul. Industriel, Chambly, QC J3L 4V2.

Waste sent for disposal included 4 crates of waste batteries and 59 drums of assorted waste (waste fuel, waste oil, etc.). See Table 4-1 for the list of items sent for disposal.

See **Annex A: Hazardous Waste and Waste Oil Disposal in 2019** for the shipping documents, including the completed movement documents for waste regulated under the Transportation of Dangerous Goods Regulations (TDGR) and NWS Manifests for non-regulated waste.

Table 4-1: Hazardous Waste and Waste Oil Sent for Disposal from CAM-M in 2019

| Description, TDG shipping name | Quantity | Movement Document or Manifest # |
|---|----------|---|
| Waste batteries, wet, filled with acid | 2 Crates | Movement Document 2539510-4 |
| Waste batteries, wet, non-spillable | 2 Crates | Movement Document 2539510-4 |
| Waste Jet A1 fuel and water mixture | 5 Drums | Movement Document 2539510-4 |
| Waste fuel, aviation, turbine engine mixture | | |
| Waste oily rags | 5 Drums | Movement Document 2539510-4 |
| Waste solids containing flammable liquids, n.o.s (fuel, aviation, turbine engine) | | |
| Waste POL soaked absorbent | 4 Drums | Movement Document 2539510-4 |
| Waste solids containing flammable liquids, n.o.s (fuel, aviation, turbine engine) | | |
| Waste paint flammable | 2 Drums | Movement Document 2581515-0 |
| Waste paint | | |
| Waste Activated Carbon Filter | 8 Drums | NWS Manifest TCN39867, TCN39868 |
| Not Regulated | | |
| Waste oil | 28 Drums | NWS Manifest TCN39863, TCN39864, TCN39865, TCN39870, TCN39886, TCN40133, TCN40194, TCN40402 |
| Not TDG regulated | | |
| Waste oil filters | 4 Drums | NWS Manifest TCN39860, TCN39861 |
| Not TDG regulated | | |
| Waste oil soaked sorbent | 2 Drums | NWS Manifest TCN39844 |
| Not TDG regulated | | |
| Waste glycol (drum) | 1 Drum | NWS Manifest TCN39877, TCN39878, TCN39879 |
| Not TDG Regulated | | |

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5.0 NON-HAZARDOUS SOLID WASTE DISPOSAL

Non-hazardous domestic solid waste was disposed of at the local landfill through a contract with the Municipality of Cambridge Bay. RCL has documented authorization from the community for receiving the waste. See Table 5-1 for the quantity of non-hazardous waste generated.

Table 5-1: Non-hazardous Domestic Solid Waste Sent for Disposal from CAM-M in 2019

| Month | Waste Generated (kg) |
|--------------|----------------------|
| January | 1137 |
| February | 1763 |
| March | 884 |
| April | 1533 |
| May | 1672 |
| June | 1461 |
| July | 1323 |
| August | 1551 |
| September | 1086 |
| October | 1334 |
| November | 973 |
| December | 1182 |
| TOTAL | 15,899 |

6.0 MONITORING PROGRAM

In 2019, a monitoring program was implemented at CAM-M as required by the water licence, Part I of licence 3BC-CAM0919 and Part J of licence 8BC-CAM1929. The monitoring program included the following:

1. Volume of raw water drawn from the water Supply Lake (CDL-1). The information from this monitoring is shown in **Section 2.0 Water Use**.
2. Quality of sewage discharged from the final discharge point of the sewage treatment facility (CDL-2). The location of the sewage effluent outfall is shown in **Annex B: Treated Sewage Effluent Outfall (CDL-2) Location with Coordinates**, including coordinates. The treated sewage was sampled monthly. The results of the analyses are shown in **Annex C: Analysis of Treated Sewage Effluent**.
3. Quality of the water contained in the berms of fuel storage facilities prior to discharge (CDL-3) was analyzed and confirmed as being within the effluent quality limits listed in the water licence, Part D. The coordinates and the results of the analysis are shown in **Annex D: Location of Bermed Fuel Storage Facilities and Analysis of Berm Water**. All samples met the effluent requirements of the water licence, Part D.
4. No landfarm has been built on-site, so no samples have been collected from the final discharge point from the landfarm (CDL-4).

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7.0 SPILLS (UNAUTHORIZED DISCHARGES)

Table 7-1: Unauthorized Discharges at CAM-M in 2019

| Date, NT-NU Spill # | Product | Quantity | Cause and follow-up action | On-site location |
|-----------------------------|---------|----------|--|--|
| 21-Nov-2019, Spill # 19-467 | Jet A1 | 481 L | <p>On 21-Nov-2019, staff were refilling day tanks in various buildings on-site. Two technicians completed the fuel transfers. They were in communication by radio, and completed the following steps at each building:</p> <ul style="list-style-type: none">• Open the valves to a tank;• Start the pump;• Monitor the transfer;• When the tank is full, stop the pump;• Close the valve. <p>Another site employee noticed the spill. The spill was immediately stopped and reported. No free product was visible, but impacted snow was collected and absorbent pads were laid down and some placed in the near-by sump. Upon review, it was determined that the cause of the spill was that the valves to the day tanks in Warehouse 2 had not been shut when the fuel transfer was complete and the employees moved on to transfer fuel to other buildings.</p> <p>Impacted snow was cleaned up immediately. A temporary shelter was built around the spill area. The shelter was heated and from 26-Nov-2019 to 06-Dec-2019 and 30m³ of impacted soil/gravel was removed. A Photo-Ionizing Detector (PID) was used for field-screening the impacted material. When the PID showed clean samples, confirmatory samples for laboratory analysis were taken and heating of the shelter around the spill area was halted. There is still an area that exceeds the Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines (SQG) and the CCME Canada-wide Standard for Petroleum Hydrocarbons (PHC CWS) so remediation will continue in 2020.</p> | Warehouse B13B (69° 6'53.10"N, 105° 7'11.22"W) |

The Spill Contingency Plan was successfully implemented.

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8.0 REVISIONS TO THE SPILL CONTINGENCY PLAN

The Spill Contingency Plan was updated on 29-Mar-2019. An updated copy of the Spill Contingency Plan has been submitted to the NWB with this annual report.

9.0 PROGRESSIVE RECLAMATION WORK UNDERTAKEN

No progressive reclamation work was completed at CAM-M in 2019 other than the response to the 21-Nov-2019 spill as stated in Table 7-1.

10.0 ACRONYMS

Table 10-1: Acronyms

| Acronym | Definition |
|----------------|--|
| CWS for PHC | Canada-Wide Standards for Petroleum Hydrocarbons (PHC) in Soil |
| CCME | Canadian Council of Ministers of the Environment |
| m ³ | Cubic metre |
| n.o.s. | Not Otherwise Specified |
| NWB | Nunavut Water Board |
| NWS | North Warning System |
| O&M | Operations and Maintenance |
| PHC | Petroleum Hydrocarbons |
| PID | Photo Ionizing Detector |
| RCL | Raytheon Canada Limited |
| SQG | Soil Quality Guidelines |
| TDGR | Transportation of Dangerous Goods Regulations |

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ANNEX A: HAZARDOUS WASTE AND WASTE OIL DISPOSAL IN 2019

The 2019 Movement Documents for TDG Regulated waste and NWS Manifests for non-TDG Regulated waste described in Table 4-1 are below.

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

2581515-0

| | | | | | | | | | | | |
|--|--|--|--|--|---|--|---------------------|--|--|---|----|
| A Generator / consignor Producteur / expéditeur | | Registration No. / Provincial ID No. N° d'immatriculation - d'id provincial MUG100003 | B Carrier Transporteur | | Registration No. / Provincial ID No. N° d'immatriculation - d'id provincial 549700 | C Receiver / consignee Réceptionnaire / destinataire | | Registration No. / Provincial ID No. N° d'immatriculation - d'id provincial 2539510-4 | | | |
| Company name / Nom de l'entreprise DEPARTMENT of National Defence C/O RCL | | Company name / Nom de l'entreprise NRAL | Mailing address / Adresse postale City / Ville Province Postal code / Code postal 22 Wing, Bldg 109, Hornell Heights, ON, L1P 0 | | Mailing address / Adresse postale City / Ville Province Postal code / Code postal (705)494-2011 ext:2840 | Mailing address / Adresse postale City / Ville Province Postal code / Code postal Cambridge Bay P.O. Box 1239 | | Mailing address / Adresse postale City / Ville Province Postal code / Code postal Cambridge Bay NU XOB 0C0 | | | |
| Shipping site address / Adresse du lieu de l'expédition NWS LSS Cambridge Bay P.O. Box 1239 | | Shipping site address / Adresse du lieu de l'expédition QMIqteasuk Environmental | Intended Receiver / consignee Réceptionnaire / destinataire prévu | | Registration No. / Provincial ID No. N° d'immatriculation - d'id provincial QMIqteasuk Environmental | Intended Receiver / consignee Réceptionnaire / destinataire prévu | | Registration No. / Provincial ID No. N° d'immatriculation - d'id provincial 2539510-4 | | | |
| Receiving site address / Adresse du lieu de destination Veolia2630, boul. Industriel Chambly QC J3L 4Y1 | | Receiving site address / Adresse du lieu de destination Veolia2630, boul. Industriel Chambly QC J3L 4Y1 | Port of entry Point d'entrée | | Port of exit Point de sortie | Port of entry Point d'entrée | | Port of exit Point de sortie | | | |
| Carrier Certification : I certify that I have received waste or recyclable material from the generator / consignor for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur : J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au récepteur / destinataire, tel qu'il figure à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. | | Name of authorized person (print): Nom de l'agent autorisé (caractère d'imprimé): Richard St.Louis | | Name of authorized person (print): Nom de l'agent autorisé (caractère d'imprimé): Richard St.Louis | | Name of authorized person (print): Nom de l'agent autorisé (caractère d'imprimé): Richard St.Louis | | Name of authorized person (print): Nom de l'agent autorisé (caractère d'imprimé): Richard St.Louis | | | |
| If waste or recyclable material is to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, précisez le nom du destinataire | | If waste or recyclable material is to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, précisez le nom du destinataire | | If waste or recyclable material is to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, précisez le nom du destinataire | | If waste or recyclable material is to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, précisez le nom du destinataire | | If waste or recyclable material is to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, précisez le nom du destinataire | | | |
| Date received / Date de réception Year / Année Month / Mois Day / Jour | | Date received / Date de réception Year / Année Month / Mois Day / Jour | | Date received / Date de réception Year / Année Month / Mois Day / Jour | | Date received / Date de réception Year / Année Month / Mois Day / Jour | | Date received / Date de réception Year / Année Month / Mois Day / Jour | | | |
| Time / Hours A.M. P.M. | | Time / Hours A.M. P.M. | | Time / Hours A.M. P.M. | | Time / Hours A.M. P.M. | | Time / Hours A.M. P.M. | | | |
| Signature | | Signature | | Signature | | Signature | | Signature | | | |
| International use only | | | | | | | | | | | |
| 24 Hour Number: Callout 1-888-226-3832 or 613-996-6666 | | | | | | | | | | | |
| 11 Notice No. N° de notification | 12 Notice Line No. N° de ligne de la notification | 13 Shipment Envir | 14 Off / De | 15 D or R code Code D ou R | 16 C code Code C | 17 Base Annex VII or OECD Code Annexe VII de l'Annexe VII ou Code OECD | 18 H code Code H | 19 Y code Code Y | 20 National code in country of / Code du pays Export Import | 21 Customs code(s) Code(s) de douane | 22 |
| (i) | | | | | | | | | | | |
| (ii) | | | | | | | | | | | |
| (iii) | | | | | | | | | | | |
| (iv) | | | | | | | | | | | |
| Handling code "Other" (specify) Si code de manutention « autre » (modéliser) | | | | | | | | | | 23 | |
| Receiver / consignee certification : I certify that the information contained in Part C is correct and complete. Attestation du récepteur / destinataire : J'atteste que tous les renseignements à la partie C sont exacts et complets. | | | | | | | | | | 24 | |
| Name of authorized person (print): Nom de l'agent autorisé (caractère d'imprimé): Richard St.Louis | | | | | | | | | | 25 | |
| Signature | | | | | | | | | | 26 | |
| Special handling / Manutention spéciale <input type="checkbox"/> Attached / Joint: <input type="checkbox"/> As follows / Ci-contre: | | | | | | | | | | 27 | |
| Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour (705)494-2011 ext:2840 | | | | | | | | | | 28 | |
| Time / Hours A.M. P.M. | | | | | | | | | | 29 | |
| Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour | | | | | | | | | | 30 | |
| Retained by Carrier Gardée par le transporteur | | | | | | | | | | 31 | |
| Copy / Copie 4 (pink / rose) | | | | | | | | | | 32 | |

Figure 1: Movement Document 2581515-0

UNCONTROLLED WHEN PRINTED



UNCLASSIFIED

SOW Ref: 16.F.5.d

| MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE | | | | | | | | | | | | 2539510-4 | |
|--|--|---|--|--|--|--|--|--|--|--|--|-----------|--|
| <p><small>The movement document complies with general and provincial transport and environmental legislation. Ce document de mouvement/manifeste est conforme aux législations fédérales et provinciales sur l'environnement et le transport.</small></p> | | | | | | | | | | | | | |
| A Generator / consignor Producteur / expéditeur Company name / Nom de l'entreprise Department of National Defence c/o RCI Mailing address / Adresse postale 22 Wing Ridge 109, Hornell Heights, ON E-mail / Courrier électronique Shipping site address / Adresse du lieu de l'expédition NHS LSS Cambridge Bay P.O. Box 1739 City / Ville Province Postal code / Code postal Cambridge Bay NU X0R 0C0 | | B Carrier / Transporteur Registration No. / Provincial ID No. N° d'immatriculation - id. provincial NU100003 | | C Receiver / consignee Récipiendaire / destinataire Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal 22 Wing Ridge 109, Hornell Heights, ON E-mail / Courrier électronique Tel. No. / N° de tel. (705) 494-2011 ext: 2840 | | <small>Movement Document / Manifest Reference No. N° de référence du document de mouvement/manifeste</small> | | | | | | | |
| A Intended Receiver / consignee Récipiendaire / destinataire prévu Mailing address / Adresse postale 9935 de Chateauguay City / Ville Province Postal code / Code postal Chambly QC J3L 4V2 | | B Registration No. / Provincial ID No. N° d'immatriculation - id. provincial Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprime) | | C Registration No. / Provincial ID No. N° d'immatriculation - id. provincial Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprime) | | <small>Reference Nos. of other movement documents/manifests used / N° de référence des autres documents de mouvement/manifeste utilisés</small> | | | | | | | |
| A Port of entry Point d'entrée Mailing address / Adresse postale 1014a 2630, boulevard Industrial City / Ville Province Postal code / Code postal Chambly QC J3L 4V2 | | B Port of exit Point de sortie Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprime) | | C Port of entry Point d'entrée Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprime) | | <small>Receiving site address / Adresse du lieu de la destination Year / Année Month / Mois Day / Jour Signature :</small> | | | | | | | |
| A Quantity received Quantité reçue Shipment No. Numéro de l'expédition (i) Waste solids containing WASTE BATTERIES, WET NON-SPILLABLE (ii) WASTE BATTERIES, WET FILLED WITH LIQUID (iii) WASTE FUEL, AVIATION TURBINE ENGINE HAVING 24 Hour Number/Computer 1-888-226-0832 or 613-496-6666 | | B Quantity shipped Quantité expédiée UN No. N° UN Sub class/Class Classe(s)/classe Hazard class Classe(s) de risque Packing / risk gr. Gr. d'emballage / de risque Code H Code H Y code Code Y Lor / ou Kg Unité No. / N° Codes Int-ext | | C Quantity received Quantité reçue Unit Unité Comments Commentaires Handling Code / Code de manutention Accepted / Accepté Refused / Refusé Pack Cont. Pack Cont. Veh. Veh. | | <small>Quantity received / N° de tel. Year / Année Month / Mois Day / Jour Time / Heure A.M. P.M.</small> | | | | | | | |
| A Notice No. N° de notification Notice Line No. N° de ligne de la notification Shipment Env. O/I De D or R code Code E ou R C code C | | B Basell Annex VII or OECD Code Annexe VII de Bâle ou Code OECD H code Code H Y code Code Y Export Expédition Import Importation | | C National code in country of / Code du pays Customs code(s) Code(s) de douanes | | <small>If handling code "Other" (specify) Si code de manutention « autre » (spécifier)</small> | | | | | | | |
| A Notice No. N° de notification Notice Line No. N° de ligne de la notification Shipment Env. O/I De D or R code Code E ou R C code C | | B Basell Annex VII or OECD Code Annexe VII de Bâle ou Code OECD H code Code H Y code Code Y Export Expédition Import Importation | | C Customs code(s) Code(s) de douanes | | <small>Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprime) Signature Tel. No. / N° de tel. (705) 494-2011 ext: 2840</small> | | | | | | | |
| <small>Generator / consignor certification: I certify that the information contained in Part A is correct and complete. Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets.</small> | | <small>Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprime) Signature Tel. No. / N° de tel. Richard ST.Louis (705) 494-2011 ext: 2840 David Trussler</small> | | <small>Special handling / Manutention spéciale Attached (O/cert): <input type="checkbox"/> As follows/Cert: <input type="checkbox"/></small> | | <small>21 Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour Time / Heure A.M. P.M. Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour</small> | | | | | | | |
| <small>MOE 04-1917 (07/07)</small> | | | | | | | | | | | | | |
| <small>Retained by Carrier - Gardée par le transporteur</small> | | | | | | | | | | | | | |
| <small>Copy / Copie 4 (pink / rose)</small> | | | | | | | | | | | | | |

Figure 2: Movement Document 2539510-4

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UNCLASSIFIED

SOW Ref: 16.F.5.d



SHIPPING MANIFEST

Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8

NON NEGOTIABLE

| Filled By: RRANSOM | Date: Jul 12, 2019, 3:55 PM | TCN-39867 | | |
|--|--------------------------------|--|---------------------------|---|
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | Priority 0 | |
| Attention: | Attention: | RRANSOM | | |
| Carrier: NEAS | Routing: SHIP TO CONSIGNEE | Waybill #: 1 PALLET | Total Pcs. 753.5 KG | Total Weight: |
| QTY Order | Type Line Weight | Item Description | WO or PO B/Code or S/N | Remarks |
| 4 | 2002351 | WASTE - ACTIVATED CARBON FILTE | 1.69 M3 | NON-REGULATED WASTE... 4 DRUMS ON 1 PALLET; ASSETS 352292 / 352293 / 352290 / 352291 |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | Received By: | Date |
| | | | Received By: | Date |

20-Jan-2020 8:02 PM

Figure 3: NWS Shipping Manifest TCN-39867



SHIPPING MANIFEST

Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8

NON NEGOTIABLE

| Filled By: RRANSOM | Date: Jul 12, 2019, 4:03 PM | TCN-39868 | | |
|--|--------------------------------|--|---------------------------|--|
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | Priority 0 | |
| Attention: | Attention: | RRANSOM | | |
| Carrier: NEAS | Routing: SHIP TO CONSIGNEE | Waybill #: 1 PALLET | Total Pcs. 713 KG | Total Weight: |
| QTY Order | Type Line Weight | Item Description | WO or PO B/Code or S/N | Remarks |
| 4 | 2002351 | WASTE - ACTIVATED CARBON FILTE | 1.69 M3 | NON-REGULATED WASTE... 4 DRUMS ON 1 PALLET; ASSETS: 352288 / 352289 / 352294 / 352287 |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | Received By: | Date |
| | | | Received By: | Date |

Figure 4: NWS Shipping Manifest TCN-39868

UNCONTROLLED WHEN PRINTED



UNCLASSIFIED

SOW Ref: 16.F.5.d



SHIPPING MANIFEST

Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8

NON NEGOTIABLE

| Filled By: RRANSOM | Date: Jul 12, 2019, 12:48 PM | TCN-39860 | | | |
|--|---------------------------------|--|------------------------|---------------------------|--|
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | Priority 0 | | |
| Attention: | | Attention: | RRANSOM | | |
| Carrier: NEAS | Routing: SHIP TO CONSIGNEE | Waybill #: | Total Pcs. 1 PALLET | Total Weight: 170 KG | |
| QTY Order | Type Line Weight | Item Item | Description | WO or PO B/Code or S/N | Remarks |
| 2 | | 2002356 | WASTE - OIL FILTERS | 1.23 M3 | NON-REGULATED WASTE... 2 DRUMS ON 1 PALLET: ASSETS 351164 / 352095 |
| NOTE: All claims related to this shipment have to be filed with Raytheon within 45 hours of receipt. | | | | Received By: | Date |
| | | | | Received By: | Date |

Figure 5: NWS Shipping Manifest TCN-39860



SHIPPING MANIFEST

Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8

NON NEGOTIABLE

| Filled By: RRANSOM | Date: Jul 12, 2019, 12:54 PM | TCN-39861 | | | |
|--|---------------------------------|--|------------------------|---------------------------|--|
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | Priority 0 | | |
| Attention: | | Attention: | RRANSOM | | |
| Carrier: NEAS | Routing: SHIP TO CONSIGNEE | Waybill #: | Total Pcs. 1 PALLET | Total Weight: 169 KG | |
| QTY Order | Type Line Weight | Item Item | Description | WO or PO B/Code or S/N | Remarks |
| 2 | | 2002356 | WASTE - OIL FILTERS | 1.23 M3 | NON-REGULATED WASTE... 2 DRUMS ON 1 PALLET: ASSETS 352127 / 350074 |
| NOTE: All claims related to this shipment have to be filed with Raytheon within 45 hours of receipt. | | | | Received By: | Date |
| | | | | Received By: | Date |

Figure 6: NWS Shipping Manifest TCN-39861

UNCONTROLLED WHEN PRINTED



UNCLASSIFIED

SOW Ref: 16.F.5.d

| | | | | | | |
|--|------------------------|--------------------------------|--|--------------|----------------------|---|
| | | SHIPPING MANIFEST | | | | |
| Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8 | | NON NEGOTIABLE | | | | |
| Filled By: RRANSOM | | Date: Jul 12, 2019, 1:10 PM | | TCN-39863 | | |
| Ship To: QIKIQTAAULUK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLEY, QC, J3L 4V2 1-866-634-6367 | | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | | Priority 0 | |
| Attention: | | Attention: RRANSOM | | | | |
| Carrier: NEAS | | Routing: SHIP TO CONSIGNEE | | Waybill #: | Total Pcs. | Total Weight: |
| QTY Order | Type Line Weight | Item | Description | WO or PO | B/Code or S/N | Remarks |
| 4 | | 2002406 | WASTE - OIL, 45 GAL | 1.62 M3 | | NON-REGULATED WASTE... 4 DRUMS ON 1 PALLET; ASSET: 349842 / 345355 / 346916 / 346915 |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | | Received By: | Date | |
| | | | | Received By: | Date | |

Figure 7: NWS Shipping Manifest TCN-39863

| | | | | | | |
|--|------------------------|--------------------------------|--|--------------|----------------------|--|
| | | SHIPPING MANIFEST | | | | |
| Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8 | | NON NEGOTIABLE | | | | |
| Filled By: RRANSOM | | Date: Jul 12, 2019, 1:20 PM | | TCN-39864 | | |
| Ship To: QIKIQTAAULUK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLEY, QC, J3L 4V2 1-866-634-6367 | | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | | Priority 0 | |
| Attention: | | Attention: RRANSOM | | | | |
| Carrier: NEAS | | Routing: SHIP TO CONSIGNEE | | Waybill #: | Total Pcs. | Total Weight: |
| QTY Order | Type Line Weight | Item | Description | WO or PO | B/Code or S/N | Remarks |
| 2 | 444 KG | 2002406 | WASTE - OIL, 45 GAL | V=1.18M3 | | NON-REGULATED WASTE... 2 DRUMS ON 1 PALLET; ASSETS 349839 / 349844 |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | | Received By: | Date | |
| | | | | Received By: | Date | |

Figure 8: NWS Shipping Manifest TCN-39864

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UNCLASSIFIED

SOW Ref: 16.F.5.d

| | | | | | | | |
|--|------------------------|--------------------------------|--|--------------|---------------|---|-----------|
| | | SHIPPING MANIFEST | | | | | |
| Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8 | | | | | | NON NEGOTIABLE | |
| Filled By: RRANSOM | | Date: Jul 12, 2019, 1:48 PM | | | | | TCN-39865 |
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | | | Priority 0 | |
| Attention: | | Attention: | | | RRANSOM | | |
| Carrier: NEAS | | Routing: SHIP TO CONSIGNEE | | Waybill #: | Total Pcs. | Total Weight: | |
| QTY Order | Type Line Weight | Item | Description | WO or PO | B/Code or S/N | Remarks | |
| 4 | | 2002406 | WASTE - OIL, 45 GAL | 1.62 M3 | | NON-REGULATED WASTE... 4 DRUMS ON 1 PALLET: ASSETS 350637 / 347475 / 350936 / 350638 | |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | | Received By: | Date | | |
| | | | | Received By: | Date | | |

Figure 9: NWS Shipping Manifest TCN-39865

| | | | | | | | |
|--|------------------------|--------------------------------|--|--------------|---------------|--|-----------|
| | | SHIPPING MANIFEST | | | | | |
| Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8 | | | | | | NON NEGOTIABLE | |
| Filled By: RRANSOM | | Date: Jul 12, 2019, 6:00 PM | | | | | TCN-39870 |
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | | | Priority 0 | |
| Attention: | | Attention: | | | RRANSOM | | |
| Carrier: NEAS | | Routing: SHIP TO CONSIGNEE | | Waybill #: | Total Pcs. | Total Weight: | |
| QTY Order | Type Line Weight | Item | Description | WO or PO | B/Code or S/N | Remarks | |
| 4 | | 2002406 | WASTE - OIL, 45 GAL | 1.56M3 | | NON-REGULATED WASTE... 4 DRUMS ON 1 PALLET: ASSETS: 349841 / 350937 / 349843 / 348402 | |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | | Received By: | Date | | |
| | | | | Received By: | Date | | |

Figure 10: NWS Shipping Manifest TCN-39870

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UNCLASSIFIED

SOW Ref: 16.F.5.d

| | | SHIPPING MANIFEST | | | | | |
|--|------------------------|---------------------------------|--|------------------------|---|----------------|-----------|
| Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8 | | | | | | NON NEGOTIABLE | |
| Filled By: RRANSOM | | Date: Jul 15, 2019, 11:30 AM | | | | | TCN-39877 |
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | | | Priority 0 | |
| Attention: | | Attention: RRANSOM | | | | | |
| Carrier: NEAS | | Routing: SHIP TO CONSIGNEE | Waybill #: | Total Pcs. 1 PALLET | Total Weight: 686 KG | | |
| QTY Order | Type Line Weight | Item Description | WO or PO | B/Code or S/N | Remarks | | |
| 2 | 4003858 | WASTE - SILICA BLAST MATERIAL | 0.80 M3 | | NON-REGULATED WASTE... 2 DRUMS ON 1 PALLET: ASSETS: 352398 / 352399 | | |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | Received By: | Date | | | |
| | | | Received By: | Date | | | |

Figure 11: NWS Shipping Manifest TCN-39877

| | | SHIPPING MANIFEST | | | | | |
|--|------------------------|---------------------------------|--|------------------------|---|----------------|-----------|
| Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8 | | | | | | NON NEGOTIABLE | |
| Filled By: RRANSOM | | Date: Jul 15, 2019, 11:42 AM | | | | | TCN-39878 |
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | | | Priority 0 | |
| Attention: | | Attention: RRANSOM | | | | | |
| Carrier: NEAS | | Routing: SHIP TO CONSIGNEE | Waybill #: | Total Pcs. 1 PALLET | Total Weight: 716 KG | | |
| QTY Order | Type Line Weight | Item Description | WO or PO | B/Code or S/N | Remarks | | |
| 2 | 4003858 | WASTE - SILICA BLAST MATERIAL | 0.80 M3 | | NON-REGULATED WASTE... 2 DRUMS ON 1 PALLET: ASSETS: 352400 / 352401 | | |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | Received By: | Date | | | |
| | | | Received By: | Date | | | |

Figure 12: NWS Shipping Manifest TCN-39878

UNCONTROLLED WHEN PRINTED



UNCLASSIFIED

SOW Ref: 16.F.5.d

| | | | | | | | |
|--|------|----------------------------|--|-------------------------------|---------------|---------------|---|
| | | SHIPPING MANIFEST | | | | | |
| Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8 | | NON NEGOTIABLE | | | | | |
| Filled By: RRANSOM Date: Jul 15, 2019, 11:47 AM | | TCN-39879 | | | | | |
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | | Priority 0 | | |
| Attention: | | Attention: | | RRANSOM | | | |
| Carrier: NEAS | | Routing: SHIP TO CONSIGNEE | | Waybill #: | Total Pcs. | Total Weight: | |
| QTY Order | Type | Line Weight | Item | Description | WO or PO | B/Code or S/N | Remarks |
| 1 | | | 4003858 | WASTE - SILICA BLAST MATERIAL | 0.58 M3 | | NON-REGULATED WASTE... 1 DRUM ON 1 PALLET; ASSETS: 352402 |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | | Received By: | Date | | |
| | | | | Received By: | Date | | |

Figure 13: NWS Shipping Manifest TCN-39879

| | | | | | | | |
|--|------|----------------------------|--|---------------------|---------------|---------------|---|
| | | SHIPPING MANIFEST | | | | | |
| Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8 | | NON NEGOTIABLE | | | | | |
| Filled By: RRANSOM Date: Jul 15, 2019, 4:21 PM | | TCN-39886 | | | | | |
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | | Priority 0 | | |
| Attention: | | Attention: | | RRANSOM | | | |
| Carrier: NEAS | | Routing: SHIP TO CONSIGNEE | | Waybill #: | Total Pcs. | Total Weight: | |
| QTY Order | Type | Line Weight | Item | Description | WO or PO | B/Code or S/N | Remarks |
| 4 | | | 2002406 | WASTE - OIL, 45 GAL | 1.62 M3 | | NON-REGULATED WASTE... 4 DRUMS ON 1 PALLET; ASSETS: 346017 / 344606 / 347876 / 340723 |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | | Received By: | Date | | |
| | | | | Received By: | Date | | |

Figure 14: NWS Shipping Manifest TCN-39886

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UNCLASSIFIED

SOW Ref: 16.F.5.d



SHIPPING MANIFEST

Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8

NON NEGOTIABLE

| Filled By: DTRUSSLER | Date: Aug 15, 2019, 8:15 PM | TCN-40133 | | | | | |
|--|--------------------------------|--|------------------------|-----------------------|--------------|---------------|--|
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | Priority 0 | | | | |
| Attention: | | Attention: | DTRUSSLER | | | | |
| Carrier: NEAS | | Routing: SHIP TO CONSIGNEE | Waybill #: 1-PALLET | Total Pcs. 860 KGS | | | |
| QTY Order | Type | Line Weight | Item | Description | WO or PO | B/Code or S/N | Remarks |
| 4 | DRUM | 860 KGS | 2002406 | WASTE - OIL, 45 GAL | 1.62 M3 | | NON-REGULATED WASTE, ASSETS:351790, 347759, 352474, 347695 |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | | | Received By: | Date | |
| | | | | | Received By: | Date | |

Figure 15: NWS Shipping Manifest TCN-40133



SHIPPING MANIFEST

Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8

NON NEGOTIABLE

| Filled By: DTRUSSLER | Date: Aug 21, 2019, 3:22 PM | TCN-40194 | | | | | |
|--|--------------------------------|--|------------------------|-------------------------|--------------|---------------|--|
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | Priority 0 | | | | |
| Attention: | | Attention: | DTRUSSLER | | | | |
| Carrier: NEAS | | Routing: SHIP TO CONSIGNEE | Waybill #: 1-PALLET | Total Pcs. 789 KGS G | | | |
| QTY Order | Type | Line Weight | Item | Description | WO or PO | B/Code or S/N | Remarks |
| 4 | DRUM | 2002406 | WASTE - OIL, 45 GAL | 1.67 M3 | | | NON-REGULATED WASTE, ASSETS:348845, 346360, 350452, 350501 |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | | | Received By: | Date | |
| | | | | | Received By: | Date | |

Figure 16: NWS Shipping Manifest TCN-40194

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SOW Ref: 16.F.5.d

| | | | | | |
|---|---|---------------------|--------------|---------------|--|
| | | | | | |
| SHIPPING MANIFEST | | | | | |
| Suite 3000, 400 Cooper Street, Ottawa, ON K2P 2H8 | | | | | |
| NON NEGOTIABLE | | | | | |
| Filled By: MRICHARD | Date: Sep 6, 2019, 1:48 PM | | | | |
| TCN-40402 | | | | | |
| Ship To: QIKIQTAAULK ENVIRONMENTAL (QE) C/O VEOLIA 2630, BOUL. INDUSTRIEL CHAMBLY, QC, J3L 4V2 1-866-634-6367 | From: LSS-C/CAM-M CAMBRIDGE BAY, DND Storeroom Raytheon Canada Limited, LSS Cambridge Bay: P.O. Box 1239 Cambridge Bay, NU, X0B 0C0 867-983- 3001 | | | | |
| Priority 0 | | | | | |
| Attention: | Attention: | | | | |
| Carrier: NEAS | Routing: SHIP TO CONSIGNEE | | | | |
| Waybill #: | Total Pcs. | Total Weight: | | | |
| QTY Order | Type Line Item Weight | Description | WO or PO | B/Code or S/N | Remarks |
| 2 | 384 KG 2002406 | WASTE - OIL, 45 GAL | V=0.85M | | NON-REGULATED WASTE... 2 DRUMS ON 1 PALLET: ASSETS 349846 / 349840 |
| NOTE: All claims related to this shipment have to be filled with Raytheon within 45 hours of receipt. | | | Received By: | Date | |
| | | | Received By: | Date | |

Figure 17: NWS Shipping Manifest TCN-40402

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SOW Ref: 16.F.5.d

ANNEX B: TREATED SEWAGE EFFLUENT OUTFALL (CDL-2) LOCATION WITH COORDINATES



Coordinates of sewage treatment outfall: 69°7'3.20"N, 105°7'11.3"W

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SOW Ref: 16.F.5.d

ANNEX C: ANALYSIS OF TREATED SEWAGE EFFLUENT

Table C-1: Summary of Analysis of Treated Sewage Effluent at CAM-M in 2019

| Sample Date | Parameter | | | | |
|-----------------------|-----------------------|---|---------------------------------|-------------------------------|-------------------------------|
| | pH | Oil and Grease (Present - P / Absent - A) | Biological Oxygen Demand (mg/L) | Total Suspended Solids (mg/L) | Faecal Coliforms ¹ |
| Maximum Concentration | 6.0 to 9.0 (pH units) | No visible sheen | 120 mg/L | 180 mg/L | 10,000 CFU/100 mL |
| 7-Jan-19 | 5.37 ² | A | <1 | 2 | 0.3 |
| 5-Feb-19 | 7.35 | A | <1 | <2 | 0.7 |
| 11-Mar-19 | 6.9 | A | 13 | <2 | 0 |
| 1-Apr-19 | 8.07 | A | 2 | <2 | 0 |
| 6-May-19 | 7.29 | A | <1 | 2 | 0.3 |
| 4-Jun-19 | 7.41 | A | 5 | 11 | 1 |
| 1-Jul-19 | 7.94 | A | 16 | <2 | 3.3 |
| 9-Aug-19 | 7.92 | A | 35 | 2 | 330 |
| 5-Sep-19 | 7.58 | A | 9 | 3 | 5.3 |
| 7-Oct-19 | 7.59 | A | 32 | 12 | 7.7 |
| 5-Nov-19 | 8.2 | A | 5 | <2 | <10 |
| 16-Dec-19 | 7.88 | A | <1 | <2 | 106.7 |

¹ This column contains the average of the Cyclet 1A, Cyclet 1B, and Cyclet 1C.

² The pH probe was not registering in the bio-reactor. Staff monitored the pH from 01-Feb-2019 onwards and found the pH was steady at 7. When the result from the 05-Feb-2019 probe reading was recorded, it confirmed that the output was once again within limits.

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SOW Ref: 16.F.5.d



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1901138
Date Submitted: 2019-01-23
Date Reported: 2019-01-29
Project:
COC #: 839911

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1408602 Sewage 2019-01-07 CAM-Main-Cyclet 1 |
|-------------------|----------------------------|------|-------|-----------|--|--|
| General Chemistry | BOD5 | 1 | mg/L | | <1 | |
| | pH | 1.00 | | | 5.37 | |
| | Total Suspended Solids | 2 | mg/L | | 2 | |
| Oil and Grease | Oil & Grease - Mineral | 1 | mg/L | | <1 | |
| | Oil & Grease - Non-mineral | 1 | mg/L | | <1 | |
| | Oil & Grease - Total | 1 | mg/L | | <1 | |
| | Visible Sheen | | P/A | | A | |

Figure 18: January 2019, sewage effluent laboratory results page 1 of 2



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1901122
Date Submitted: 2019-01-23
Date Reported: 2019-01-24
Project:
COC #: 839911

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1408501 Sewage 2019-01-07 CAM-Main Cyclet 1A | 1408502 Sewage 2019-01-07 CAM-Main Cyclet 1B | 1408503 Sewage 2019-01-07 CAM-Main Cyclet 1C |
|--------------|------------------|-----|----------|-----------|--|---|---|---|
| Microbiology | Faecal Coliforms | 0 | ct/100mL | | | 0 | 1 | 0 |

Figure 19: January 2019, sewage effluent laboratory results page 2 of 2

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SOW Ref: 16.F.5.d



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1902160
Date Submitted: 2019-02-14
Date Reported: 2019-02-21
Project:
COC #: 840472

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1411148 WW 2019-02-05 CAM-Main Cyclet 1 |
|-------------------|----------------------------|------|-------|-----------|--|--|
| General Chemistry | BOD5 | 1 | mg/L | <1 | | |
| | pH | 1.00 | | 7.35 | | |
| Oil and Grease | Total Suspended Solids | 2 | mg/L | <2 | | |
| | Oil & Grease - Mineral | 1 | mg/L | <1 | | |
| | Oil & Grease - Non-mineral | 1 | mg/L | <1 | | |
| | Oil & Grease - Total | 1 | mg/L | <1 | | |
| | Visible Sheen | | P/A | A | | |

Figure 20: February 2019, sewage effluent laboratory results page 1 of 2



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1902166
Date Submitted: 2019-02-14
Date Reported: 2019-02-15
Project:
COC #: 840472

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1411158 Sewage 2019-02-05 Cam-Main Cyclet 1A | 1411159 Sewage 2019-02-05 Cam-Main Cyclet 1B | 1411160 Sewage 2019-02-05 Cam-Main Cyclet 1C |
|--------------|------------------|-----|----------|-----------|--|---|---|---|
| Microbiology | Faecal Coliforms | 0 | ct/100mL | | | 0 | 0 | 2 |

Figure 21: February 2019, sewage effluent laboratory results page 2 of 2

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SOW Ref: 16.F.5.d



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1903624
Date Submitted: 2019-03-14
Date Reported: 2019-03-20
Project:
COC #: 841232

| | | | | | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1415234 Sewage 2019-03-11 CAM-Main Cyclet 1 |
|-------------------|----------------------------|------|-------|-----------|--|--|
| Group | Analyte | MRL | Units | Guideline | | |
| General Chemistry | BOD5 | 1 | mg/L | 13 | | |
| | pH | 1.00 | | 6.90 | | |
| Oil and Grease | Total Suspended Solids | 2 | mg/L | <2 | | |
| | Oil & Grease - Mineral | 1 | mg/L | <1 | | |
| | Oil & Grease - Non-mineral | 1 | mg/L | <1 | | |
| | Oil & Grease - Total | 1 | mg/L | <1 | | |
| | Visible Sheen | | P/A | A | | |

Figure 22: March 2019, sewage effluent laboratory results page 1 of 2



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1903625
Date Submitted: 2019-03-14
Date Reported: 2019-03-15
Project:
COC #: 841232

| | | | | | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1415235 Sewage 2019-03-11 CAM-MAIN CYCLET 1A | 1415236 Sewage 2019-03-11 CAM-MAIN CYCLET 1B | 1415237 Sewage 2019-03-11 CAM-MAIN CYCLET 1C |
|--------------|------------------|-----|----------|-----------|--|--|--|--|
| Group | Analyte | MRL | Units | Guideline | | | | |
| Microbiology | Faecal Coliforms | 0 | ct/100mL | | 0 | 0 | 0 | |

Figure 23: March 2019, sewage effluent laboratory results page 2 of 2

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Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1904728
Date Submitted: 2019-04-03
Date Reported: 2019-04-10
Project:
COC #: 841868

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1418470 Sewage 2019-04-01 CAM-MAIN CYCLET 1 |
|-------------------|----------------------------|------|-------|-----------|--|---|
| General Chemistry | BOD5 | 1 | mg/L | | | 2 |
| | pH | 1.00 | | | | 8.07 |
| | Total Suspended Solids | 2 | mg/L | | | <2 |
| Oil and Grease | Oil & Grease - Mineral | 1 | mg/L | | | <1 |
| | Oil & Grease - Non-mineral | 1 | mg/L | | | <1 |
| | Oil & Grease - Total | 1 | mg/L | | | <1 |
| | Visible Sheen | | P/A | | | A |

Figure 24: April 2019, sewage effluent laboratory results page 1 of 2



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1904760
Date Submitted: 2019-04-03
Date Reported: 2019-04-04
Project:
COC #: 841868

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1418563 WW 2019-04-01 Cam-Main Cyclet 1A | 1418564 WW 2019-04-01 Cam-Main Cyclet 1B | 1418565 WW 2019-04-01 Cam-Main Cyclet 1C |
|--------------|------------------|-----|----------|-----------|--|---|---|---|
| Microbiology | Faecal Coliforms | 0 | ct/100mL | | | 0 | 0 | 0 |

Figure 25: April 2019, sewage effluent laboratory results page 2 of 2

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Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1907322
Date Submitted: 2019-05-13
Date Reported: 2019-05-21
Project:
COC #: 843418

| | | | | | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1425937 Sewage 2019-05-06 CAM-Main Cyclet 1 |
|-------------------|----------------------------|------|-------|-----------|--|--|
| Group | Analyte | MRL | Units | Guideline | | |
| General Chemistry | BOD5 | 1 | mg/L | <1 | | |
| | pH | 1.00 | | 7.29 | | |
| Oil and Grease | Total Suspended Solids | 2 | mg/L | 2 | | |
| | Oil & Grease - Mineral | 1 | mg/L | <1 | | |
| | Oil & Grease - Non-mineral | 1 | mg/L | <1 | | |
| | Oil & Grease - Total | 1 | mg/L | <1 | | |
| | Visible Sheen | | P/A | A | | |

Figure 26: May 2019, sewage effluent laboratory results page 1 of 2



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1907323
Date Submitted: 2019-05-13
Date Reported: 2019-05-14
Project:
COC #: 843418

| | | | | | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1425938 Sewage 2019-05-06 CAM-Main Cyclet 1 A | 1425939 Sewage 2019-05-06 CAM-Main Cyclet 1 B | 1425940 Sewage 2019-05-06 CAM-Main Cyclet 1 C |
|--------------|------------------|-----|----------|-----------|--|--|--|--|
| Group | Analyte | MRL | Units | Guideline | | | | |
| Microbiology | Faecal Coliforms | 0 | ct/100mL | 1 | 1 | 0 | 0 | |

Figure 27: May 2019, sewage effluent laboratory results page 2 of 2

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Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 004438-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1909205
Date Submitted: 2019-06-07
Date Reported: 2019-06-17
Project:
COC #: 844585

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. |
|-------------------|----------------------------|------|-------|-----------|--|
| General Chemistry | BOD5 | 1 | mg/L | | 1431476 Sewage 2019-06-04 CAM-MAIN CYCLET 1 |
| | pH | 1.00 | | | 7.41 |
| Oil and Grease | Total Suspended Solids | 2 | mg/L | | 11 |
| | Oil & Grease - Mineral | 1 | mg/L | | <1 |
| | Oil & Grease - Non-mineral | 1 | mg/L | | <1 |
| | Oil & Grease - Total | 1 | mg/L | | <1 |
| | Visible Sheen | | P/A | | A |

Figure 28: June 2019, sewage effluent laboratory results page 1 of 2



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1909137
Date Submitted: 2019-06-07
Date Reported: 2019-06-11
Project:
COC #: 844585

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1431326 WW 2019-06-04 Cammaint Cyclct 1A | 1431327 WW 2019-06-04 Cammaint Cyclct 1B | 1431328 WW 2019-06-04 Cammaint Cyclct 1C |
|--------------|------------------|-----|----------|-----------|--|---|---|---|
| Microbiology | Faecal Coliforms | 0 | ct/100mL | | 0 | 0 | 0 | 3 |

Figure 29: June 2019, sewage effluent laboratory results page 2 of 2

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SOW Ref: 16.F.5.d



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 004438-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1911813
Date Submitted: 2019-07-09
Date Reported: 2019-07-16
Project: COC #: 845889

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1439727 Sewage 2019-07-01 Cam-Main Cyclet 1 |
|-------------------|----------------------------|------|-------|-----------|--|--|
| General Chemistry | BOD5 | 1 | mg/L | | 16 | |
| | pH | 1.00 | | | 7.94 | |
| Oil and Grease | Total Suspended Solids | 2 | mg/L | | <2 | |
| | Oil & Grease - Mineral | 1 | mg/L | | <1 | |
| | Oil & Grease - Non-mineral | 1 | mg/L | | <1 | |
| | Oil & Grease - Total | 1 | mg/L | | <1 | |
| | Visible Sheen | 0 | P/A | | A | |

Figure 30: July 2019, sewage effluent laboratory results page 1 of 2



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1911838
Date Submitted: 2019-07-09
Date Reported: 2019-07-10
Project: COC #: 845889

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1439814 WW 2019-07-01 Cam-Main Cyclet 1 A | 1439815 WW 2019-07-01 Cam-Main Cyclet 1 B | 1439816 WW 2019-07-01 Cam-Main Cyclet 1 C |
|--------------|------------------|-----|----------|-----------|--|--|--|--|
| Microbiology | Faecal Coliforms | | cf/100mL | | 4 | 4 | 3 | 3 |
| | | 0 | cf/100mL | | | | | |

Figure 31: July 2019, sewage effluent laboratory results page 2 of 2

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SOW Ref: 16.F.5.d



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 004438-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1914439
Date Submitted: 2019-08-13
Date Reported: 2019-08-20
Project:
COC #: 847494

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1446627 Sewage 2019-08-09 CAM-Main Cyclct 1 |
|-------------------|----------------------------|------|-------|-----------|--|--|
| General Chemistry | BOD5 | 1 | mg/L | | 35 | |
| | pH | 1.00 | | | 7.92 | |
| | Total Suspended Solids | 2 | mg/L | | 2 | |
| Oil and Grease | Oil & Grease - Mineral | 1 | mg/L | | <1 | |
| | Oil & Grease - Non-mineral | 1 | mg/L | | <1 | |
| | Oil & Grease - Total | 1 | mg/L | | <1 | |
| | Visible Sheen | | P/A | | A | |

Figure 32: August 2019, sewage effluent laboratory results page 1 of 2



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 004438-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1914461
Date Submitted: 2019-08-13
Date Reported: 2019-08-14
Project:
COC #: 847494

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1446722 Sewage 2019-08-09 CAM Main Cyclct 1A | 1446723 Sewage 2019-08-09 CAM Main Cyclct 1B | 1446724 Sewage 2019-08-09 CAM Main Cyclct 1C |
|--------------|------------------|-----|----------|-----------|--|---|---|---|
| Microbiology | Faecal Coliforms | 0 | ct/100mL | | | 280 | 450 | 260 |

Figure 33: August 2019, sewage effluent laboratory results page 2 of 2

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SOW Ref: 16.F.5.d



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 004438-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1916397
Date Submitted: 2019-09-10
Date Reported: 2019-09-16
Project: COC #: 848533

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1452527 Sewage 2019-09-05 Cam-Main Cyclet 1 |
|-------------------|----------------------------|------|-------|-----------|--|--|
| General Chemistry | BOD5 | 1 | mg/L | | 9 | |
| | pH | 1.00 | | | 7.58 | |
| Oil and Grease | Total Suspended Solids | 2 | mg/L | | 3 | |
| | Oil & Grease - Mineral | 1 | mg/L | | <1 | |
| | Oil & Grease - Non-mineral | 1 | mg/L | | <1 | |
| | Oil & Grease - Total | 1 | mg/L | | <1 | |
| | Visible Sheen | | ug/L | | A | |

Figure 34: September 2019, sewage effluent laboratory results page 1 of 2



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1916420
Date Submitted: 2019-09-10
Date Reported: 2019-09-11
Project: COC #: 848533

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1452574 WW 2019-09-05 Cam-Main Cyclet 1A | 1452575 WW 2019-09-05 Cam-Main Cyclet 1B | 1452576 WW 2019-09-05 Cam-Main Cyclet 1C |
|--------------|------------------|-----|----------|-----------|--|---|---|---|
| Microbiology | Faecal Coliforms | 0 | ct/100mL | | 3 | 7 | 6 | |

Figure 35: September 2019, sewage effluent laboratory results page 2 of 2

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SOW Ref: 16.F.5.d



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 004438-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1918881
Date Submitted: 2019-10-15
Date Reported: 2019-10-23
Project: COC #: 850217

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1459713 Sewage 2019-10-07 CAM-Main Cyclet 1 |
|-------------------|----------------------------|------|-------|-----------|--|--|
| General Chemistry | BOD5 | 1 | mg/L | | | 32 |
| | pH | 1.00 | | | | 7.59 |
| Oil and Grease | Total Suspended Solids | 2 | mg/L | | | 12 |
| | Oil & Grease - Mineral | 1 | mg/L | | | <1 |
| | Oil & Grease - Non-mineral | 1 | mg/L | | | 1 |
| | Oil & Grease - Total | 1 | mg/L | | | 1 |
| | Visible Sheen | | ug/g | | | A |

Figure 36: October 2019, sewage effluent laboratory results page 1 of 2



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 004438-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1918882
Date Submitted: 2019-10-15
Date Reported: 2019-10-16
Project: COC #: 850217

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1459714 Sewage 2019-10-07 CAM-Main Cyclet 1A | 1459715 Sewage 2019-10-07 CAM-Main Cyclet 1B | 1459716 Sewage 2019-10-07 CAM-Main Cyclet 1C |
|--------------|------------------|-----|----------|-----------|--|---|---|---|
| Microbiology | Faecal Coliforms | 0 | ct/100mL | | | 8 | 9 | 6 |

Figure 37: October 2019, sewage effluent laboratory results page 2 of 2

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SOW Ref: 16.F.5.d



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 004438-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1920659
Date Submitted: 2019-11-08
Date Reported: 2019-11-15
Project: COC #: 851229

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1465550 Sewage 2019-11-05 Cam-Main Cyclet 1 |
|-------------------|----------------------------|------|-------|-----------|--|--|
| General Chemistry | BOD5 | 1 | mg/L | | 5 | |
| | pH | 1.00 | | | 8.20 | |
| Oil and Grease | Total Suspended Solids | 2 | mg/L | | <2 | |
| | Oil & Grease - Mineral | 1 | mg/L | | <1 | |
| | Oil & Grease - Non-mineral | 1 | mg/L | | <1 | |
| | Oil & Grease - Total | 1 | mg/L | | <1 | |
| | Visible Sheen | | P/A | | A | |

Figure 38: November 2019, sewage effluent laboratory results page 1 of 2



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Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1920632
Date Submitted: 2019-11-08
Date Reported: 2019-11-18
Project: COC #: 851229

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1465398 Sewage 2019-11-05 Cam-Main Cyclet 1A | 1465399 Sewage 2019-11-05 Cam-Main Cyclet 1B | 1465400 Sewage 2019-11-05 Cam-Main Cyclet 1C |
|--------------|------------------|-----|----------|-----------|--|---|---|---|
| Microbiology | Faecal Coliforms | 10 | ct/100mL | | <10 | <10 | <10 | |

Figure 39: November 2019, sewage effluent laboratory results page 2 of 2

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Attention: Mr. Will Wyman
PO#: 004438-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1923073
Date Submitted: 2019-12-20
Date Reported: 2020-01-02
Project: COC #: 852715

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1473115 Sewage 2019-12-16 Cam-Main Cyclet 1 |
|-------------------|----------------------------|------|-------|-----------|--|--|
| General Chemistry | BOD5 | 1 | mg/L | | <1 | |
| | pH | 1.00 | | | 7.88 | |
| Oil and Grease | Total Suspended Solids | 2 | mg/L | | <2 | |
| | Oil & Grease - Mineral | 1 | mg/L | | <1 | |
| | Oil & Grease - Non-mineral | 1 | mg/L | | 2 | |
| | Oil & Grease - Total | 1 | mg/L | | 2 | |
| | Visible Sheen | | P/A | | A | |

Figure 40: December 2019, sewage effluent laboratory results page 1 of 2



Environment Testing

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Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1923090
Date Submitted: 2019-12-20
Date Reported: 2019-12-23
Project: COC #: 852715

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1473179 WW 2019-12-16 Cam-Main Cyclet 1A | 1473180 WW 2019-12-16 Cam-Main Cyclet 1B | 1473181 WW 2019-12-16 Cam-Main Cyclet 1C |
|--------------|------------------|-----|----------|-----------|--|---|---|---|
| Microbiology | Faecal Coliforms | 0 | ct/100mL | | | 63 | 86 | 171 |

Figure 41: December 2019, sewage effluent laboratory results page 2 of 2

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ANNEX D: LOCATION OF BERMED FUEL STORAGE FACILITIES AND ANALYSIS OF BERM WATER

The samples were analyzed for the parameters listed in the water licence 8BC-CAM1929, Part D, Item 11.

Table D-1: Analysis of Berm Water at CAM-M in 2019

| Berm | Maximum concentration of any grab sample (ug/L) | CAM W22A | CAM W20B&C | CAM W22C & W20D |
|---------------------------------|---|---------------|----------------|-----------------|
| Location on-site | | Summit | Airstrip | Beach |
| Discharge Latitude ³ | | 69° 7'2.76"N | 69° 6'12.01"N | 69° 6'11.41"N |
| Discharge Longitude | | 105° 7'2.69"W | 105° 7'36.60"W | 105° 5'50.26"W |
| Date | | 14-Jun-2019 | 14-Jun-2019 | 19-Jun-2019 |
| pH (pH Units) | 6 to 9 | 7.44 | 7.41 | 7.89 |
| Oil and Grease (ug/L) | 5000 | <1000 | <1000 | <1000 |
| Lead (dissolved) (ug/L) | 50 | <1 | <1 | <1 |
| Benzene (ug/L) | 370 | <0.5 | <0.5 | <0.5 |
| Toluene (ug/L) | 2 | <0.5 | <0.5 | <0.5 |
| Ethyl benzene (ug/L) | 90 | <0.5 | <0.5 | <0.5 |

³ Final discharge point of bermed fuel storage facility

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Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1910134
Date Submitted: 2019-06-19
Date Reported: 2019-06-21
Project: CAM Main
COC #: 844981

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1434285 Water 2019-06-14 ML-W22A-Berm Water |
|-------------------|----------------------------|-------|-------|-----------|--|---|
| General Chemistry | pH | 1.00 | | | | 7.44 |
| Metals | Pb | 0.001 | mg/L | | | <0.001 |
| Oil and Grease | Oil & Grease - Mineral | 1 | mg/L | | | <1 |
| | Oil & Grease - Non-mineral | 1 | mg/L | | | <1 |
| | Oil & Grease - Total | 1 | mg/L | | | <1 |
| VOCs Surrogates | Toluene-d8 | 0 | % | | | 93 |
| Volatiles | Benzene | 0.5 | ug/L | | | <0.5 |
| | Ethylbenzene | 0.5 | ug/L | | | <0.5 |
| | m/p-xylene | 0.4 | ug/L | | | <0.4 |
| | o-xylene | 0.4 | ug/L | | | <0.4 |
| | Toluene | 0.5 | ug/L | | | <0.5 |

Figure 42: CAM W22A berm water laboratory results (14-Jun-2019)



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400 Cooper St.
Ottawa, ON
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Attention: Mr. Will Wyman
PO#: 002160-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1910132
Date Submitted: 2019-06-19
Date Reported: 2019-06-26
Project: CAM Main
COC #: 844979

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1434283 Water 2019-06-14 ML-W20B+C Berm Water |
|-------------------|----------------------------|-------|-------|-----------|--|---|
| General Chemistry | pH | 1.00 | | | | 7.41 |
| Metals | Pb | 0.001 | mg/L | | | <0.001 |
| Oil and Grease | Oil & Grease - Mineral | 1 | mg/L | | | <1 |
| | Oil & Grease - Non-mineral | 1 | mg/L | | | <1 |
| | Oil & Grease - Total | 1 | mg/L | | | <1 |
| VOCs Surrogates | Toluene-d8 | 0 | % | | | 95 |
| Volatiles | Benzene | 0.5 | ug/L | | | <0.5 |
| | Ethylbenzene | 0.5 | ug/L | | | <0.5 |
| | m/p-xylene | 0.4 | ug/L | | | <0.4 |
| | o-xylene | 0.4 | ug/L | | | <0.4 |
| | Toluene | 0.5 | ug/L | | | <0.5 |

Figure 43: CAM W20B&C berm water laboratory results (14-Jun-2019)

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Client: Raytheon Canada Limited Ottawa
400 Cooper St.
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Attention: Mr. Will Wyman
PO#: 004438-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1911191
Date Submitted: 2019-07-03
Date Reported: 2019-07-09
Project:
COC #: 845587

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1437228 Water 2019-06-19 MLW 22C+W20D Berm Water |
|-------------------|----------------------------------|--------|-------|-----------|--|--|
| General Chemistry | pH | 1.00 | | | | 7.89 |
| Mercury | Hg | 0.0001 | mg/L | | | <0.0001 |
| Metals | Aqua-Regia Digest | | | | | <0.0001 |
| | As | 0.02 | mg/L | | | <0.02 |
| | Zn | 0.04 | mg/L | | | <0.04 |
| Oil and Grease | Oil & Grease - Total | 1 | mg/L | | | <1 |
| PCBs | Polychlorinated Biphenyls (PCBs) | 0.1 | ug/L | | | <0.1 |
| Subcontract-Inorg | Phenols | 0.001 | mg/L | | | 0.001 |
| VOCs Surrogates | Toluene-d8 | 0 | % | | | 94 |
| Volatile | Benzene | 0.5 | ug/L | | | <0.5 |
| | Ethylbenzene | 0.5 | ug/L | | | <0.5 |
| | Toluene | 0.5 | ug/L | | | <0.5 |

Figure 44: CAM W22C and W20D berm water laboratory results page 1 of 2 (19-Jun-2019)



Environment Testing

Certificate of Analysis

Client: Raytheon Canada Limited Ottawa
400 Cooper St.
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#: 004438-OT
Invoice to: Raytheon Canada Limited Ottawa

Report Number: 1911192
Date Submitted: 2019-07-03
Date Reported: 2019-07-05
Project:
COC #: 845587

| Group | Analyte | MRL | Units | Guideline | Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D. | 1437229 Water 2019-06-19 MLW 22C+W20D |
|--------|---------|--------|-------|-----------|--|--|
| Metals | Cd | 0.0001 | mg/L | | | <0.0001 |
| | Co | 0.0002 | mg/L | | | <0.0002 |
| | Cr | 0.001 | mg/L | | | <0.001 |
| | Cu | 0.001 | mg/L | | | 0.005 |
| | Ni | 0.005 | mg/L | | | <0.005 |
| | Pb | 0.001 | mg/L | | | <0.001 |

Figure 45: CAM W22C and W20D berm water laboratory results page 2 of 2 (19-Jun-2019)

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