

WASTE MANAGEMENT PLAN

42099 Mackenzie Highway, Hay River, NT

Prepared for:

Mackenzie Valley Land and Water Board 7th Floor – 4922 48th Street P.O. Box 2130, X1A 2P6 Yellowknife, NT

Prepared by:



Parsons Inc. 7 Terracon Place Winnipeg, Manitoba R2J 4B3 Phone: (204) 489-2964

Fax: (204) 489-3014

Ref. No.: 10-593 June 12, 2024

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1.0 INTRODUCTION AND PROJECT DETAILS

Parsons Inc. (Parsons) has prepared this Waste Management Plan (Plan) as part of the application process in preparation of the Environmental Site Assessment (ESA) activities proposed at the Imperial Oil Fuel Distribution Terminal located at 42099 Mackenzie Highway, Hay River, Northwest Territories (the Site). The Plan has been prepared in accordance with the Mackenzie Valley Land and Water Board's <u>Guidelines for Developing a Waste Management Plan</u> (Guidelines).

1.1 CORPORATE CONTACT INFORMATION

JOSH MYERS

Project Manager

7 Terracon Place, Winnipeg, MB, R2J 4B3

josh.myers@parsons.com

Direct: +1 204.201.1110 / Mobile: +1 204.330.0076

Parsons / LinkedIn / Twitter / Facebook / Instagram



1.2 EFFECTIVE DATE OF WASTE MANAGEMENT PLAN

The Plan is effective as of March 15, 2024.

1.3 REVISIONS

This Plan is a living document that will be reviewed annually, at a minimum, and prior to the start of any site activities, with additional reviews as warranted. Updates will be made to reflect changes in waste management plans and practices, and new personnel and associated contact information. Table 1 presents a summary of the versions of this Plan and any revisions made; it is updated each time a revision is made to the Plan. This ensures stakeholders have the most current copy of the Plan.

Table 1: Version and Revision History

Revision #	Date	Sections/Pages revised	Summary of Changes/Comments
Rev.0	03/15/2024	All	First submission to the Board

1.4 RECIPIENTS

Table 2: Recipients of the most recent version of this Plan

Name	Position	
Andrea Cleland	Regulatory Specialist, MVLWB	
Josh Myers	Parsons, Project Manager	

1.5 COPIES OF CURRENT VERSION OF THE PLAN

Copies of the most current version of the Plan are available on-site at all times in the Parsons Job Binder.

Additional copies of the Plan can be obtained by contacting Josh Myers, Parsons Project Manager at josh.myers@parsons.com 204-201-1110.

1.6 ENVIRONMENTAL POLICY

At Parsons, corporate social responsibility (CSR) falls under the umbrella of sustainability. As one if our six core values, sustainability is a fundamental part of who we are reflecting long-held beliefs.

Sustainability seeks to develop and implement the methods and behaviors that balance the consumption of resources with the impact of that consumption on the environment – in an economically viable manner and one that enhances the quality of life.

At Parsons, striving for this balance has been an integral part of everything we do. To be effective, all of our efforts must integrate the three pillars, or dimensions of sustainability-environmental/energy, sociocultural and economic.

Parsons has a rich history of providing proven, sustainable solutions. By integrating environmental/energy, sociocultural and economic concepts into our operations at the Site and our interactions with our employees, customers and the communities in which we do our business, we are fulfilling our commitment to CSR and to act as responsible corporate citizen.

Parsons supervisor will review the Plan with each employee on site:

During the employee's initial site orientation;

- When the employee's responsibilities under the Plan change; and,
- When the Plan is updated.

The Plan will remain at the site for the duration of the project.

1.7 PURPOSE AND SCOPE

The Plan has been prepared in preparation of the ESA activities proposed at the Imperial Oil Fuel Distribution Terminal located at 42099 Mackenzie Highway, Hay River, NT in accordance with the Site's General Contingency, Emergency Management and Response Plan, which applies to the Site as a whole, including all areas within the project work area. The necessary resources have been and will continue to be committed to implement the Plan as described herein.

The Plan has been prepared to address waste management as well as to present the effective actions for ensuring all on-Site workers comply with the waste management practices presented herein.

1.8 SITE DESCRIPTION

The Site is located at 42099 Mackenzie Highway, Hay River, Northwest Territories. Legal land description of the Site is Lots 4, 5 and part of Lot 6, Block G, Plan 39.

The Site is currently operating as an Imperial Oil Fuel Distribution Terminal. The Site occupies an area of approximately 1.6 ha.

1.9 PROJECT DESCRIPTION

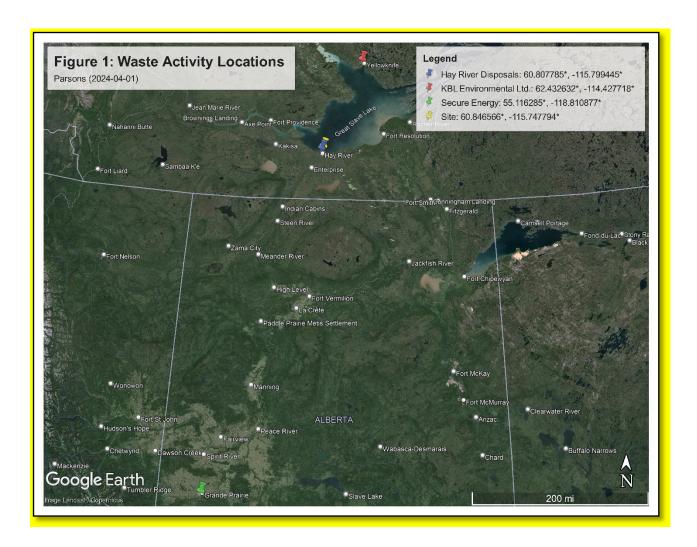
The following activities will be conducted at the Site:

- Groundwater monitoring and sampling;
- Subsurface disturbance (daylighting and drilling), soil sampling;
- Equipment monitoring and maintenance; and,
- Management of waste

1.10 WASTE ACTIVITY LOCATIONS

Waste activity locations are described below and in Figure 1:

- Waste generating activities will occur at the Site located at 42099 Mackenzie Highway, Hay River, NT.
- Soil and purge water waste will be disposed of at KBL Environmental located at 17 Cameron Rd, Yellowknife, NT.
- Hydrovac slurry waste will be disposed of at Secure Energy located in Rainbow Lake, AB.
- Domestic waste will be disposed of at the Hay River Landfill located at 37 Studney Drive, Hay River, NT.



2.0 IDENTIFICATION OF WASTE TYPES

2.1 WASTE PRODUCTION

The waste generated on site will consist of soil and hydrovac slurry produced from the drilling activities, water produced from well development activities, and domestic wastes and plastics produced during on-Site activities.

Waste Type	Characteristics	Source	Volume Estimate	Environmental Effects
Soil Cuttings (potentially hazardous)	Silts and sands (Potentially petroleum hydrocarbon contaminated)	Borehole drilling	5 to 6 soil bags (9.0 to 10.8 cubic meters)	Potential for leachate to contaminate soils and groundwater
Hydrovac Slurry (potentially hazardous)	Mixture of water and soil (Potentially petroleum hydrocarbon contaminated)	Borehole daylighting	12-15 metric tons	Potential for leachate to contaminate soils and groundwater
Purge water (potentially hazardous)	Water purged from well development (Potentially petroleum hydrocarbon contaminated)	Well development	300 L	Potential for leachate to contaminate soils and groundwater
Household Waste (non- hazardous)	Various papers, plastics and food associated wastes	Plastic sampling equipment and food waste	One 55-gallon bag per day (~19 bags)	Potential methane release and leachate

3.0 MANAGEMENT OF WASTE TYPES

3.1 WASTE MANAGEMENT

The waste generated on-Site will be contained and stored on-Site and transported from Site to the designated waste facility following the close of Site activities. The locations of waste

management facilities to be utilized for this project are presented on the attached Waste Management Location map.

3.1.2 SOIL WASTE

The soil waste generated on-Site will be transferred by drillers or field technicians to 1.8 m³ soil bags for containment and storage. Upon completion of the drilling activities the soil bags will be removed from the Site by KBL Environmental, under contract to Parsons, and transported to the KBL Environmental Yellowknife waste facility for disposal. A Letter of Approval from KBL has been included in Appendix A.

3.1.3 HYDROVAC SLURRY WASTE

The hydrovac slurry waste generated on-Site will be stored within the hydrovac truck and transported by Badger Inc., under contract to Parsons, to the Secure Energy hazardous waste disposal facility located in Rainbow Lake, Alberta. A letter of Approval from Secure Energy has been included in Appendix A.

3.1.2 PURGE WATER WASTE

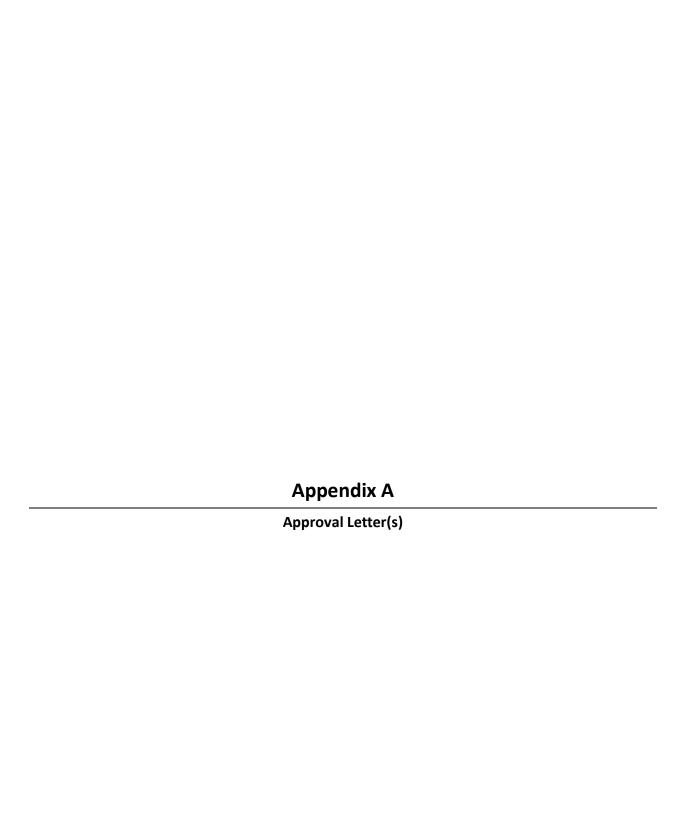
The purge water waste generated on-Site will be transferred by field technicians to 5-gallon pails with lids for containment and storage. Upon completion of the well development activities, the pails will be removed from the Site by KBL Environmental, under contract to Parsons, and transported to the KBL Environmental Yellowknife waste facility for disposal. A Letter of Approval from KBL has been included in Appendix A.

3.1.4 DOMESTIC WASTE

Domestic waste generated on Site may include plastic from environmental sampling equipment (LDPE bailers, bailer twine, plastic bags, plastic filters, nitrile gloves, used sharpie markers, packing tape, bubble wrap, plastic bags from store bought ice, food associated waste (organic leftovers, fast food containers, saran wrap, plastic bags, plastic cutlery, paper or aluminum beverage containers, paper bags, serviettes)). This waste will be collected and stored in garbage bags which will be transported to Hay River Disposal (waste disposal company) by Parsons personnel at the conclusion of on-Site activities. A Letter of Approval from the Manager of the Hay River Landfill has been included in Appendix A.

3.1.4 INFRASTRUCTURE REQUIRED FOR WASTE MANAGEMENT

Infrastructure required on Site for waste management is limited to soil bags, plastic pails with lids, garbage receptacles, and the temporary use of a hydrovac truck for containment of slurry waste.



Myers, Josh [NN-CA]

From: Phil Vokey <publicworks@hayriver.com>

Sent: Tuesday, April 2, 2024 4:40 PM

To: Myers, Josh [NN-CA]

Subject: [EXTERNAL] RE: 10-593 - Household Waste Acceptance Inquiry - April 2nd, 2024

Thank you,

It's a \$30 min charge up to 100kg and an additional \$10 per kg over the 100kg min.

Kind regards,

Phil Vokey

Operations Supervisor Infrastructure & Public Works

Town of Hay River 100 – 62 Woodland Dr. Hay River, N.T. X0E 1G1 Ph: (867) 874-6522

Cell: (867) 875-7137 publicworks@hayriver.com

www.hayriver.com [hayriver.com]



From: Josh.Myers@parsons.com < Josh.Myers@parsons.com >

Sent: Tuesday, April 2, 2024 2:21 PM

To: Phil Vokey <publicworks@hayriver.com>

Subject: RE: 10-593 - Household Waste Acceptance Inquiry - April 2nd, 2024

[External Email] This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

We will be working at the Hay River Imperial Oil Terminal.

From: Phil Vokey < publicworks@hayriver.com>

Sent: Tuesday, April 2, 2024 3:19 PM

To: Myers, Josh [NN-CA] < Josh. Myers@parsons.com>

Subject: [EXTERNAL] RE: 10-593 - Household Waste Acceptance Inquiry - April 2nd, 2024

Thank you,

Which community are you working in?

Kind regards,

Phil Vokey

Operations Supervisor Infrastructure & Public Works

Town of Hay River 100 – 62 Woodland Dr. Hay River, N.T. X0E 1G1 Ph: (867) 874-6522

Cell: (867) 875-7137

<u>publicworks@hayriver.com</u> www.hayriver.com [hayriver.com]



From: Josh.Myers@parsons.com <Josh.Myers@parsons.com>

Sent: Tuesday, April 2, 2024 2:14 PM

To: Phil Vokey <publicworks@hayriver.com>

Subject: RE: 10-593 - Household Waste Acceptance Inquiry - April 2nd, 2024

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Hi Phil,

The material is not due to fire abatement. We are generating the material from a subsurface drilling program in which we are collecting soil and groundwater samples.

Thanks,

Josh Myers, P.Geo.
7 Terracon Place, Winnipeg, MB, R2J 4B3
Josh.Myers@Parsons.com
P: +1 (204) 201-1110 M: +1 (204) 330-0076



From: Phil Vokey <publicworks@hayriver.com>

Sent: Tuesday, April 2, 2024 3:12 PM

To: Myers, Josh [NN-CA] <Josh.Myers@parsons.com>

Subject: [EXTERNAL] RE: 10-593 - Household Waste Acceptance Inquiry - April 2nd, 2024

Hi Josh,

Thank you for your inquiry, just a couple of questions.

- 1. Is the material due to fire abatement?
- 2. Where has the material generated from?

Kind regards,

Phil Vokey

Operations Supervisor Infrastructure & Public Works

Town of Hay River 100 – 62 Woodland Dr. Hay River, N.T. X0E 1G1 Ph: (867) 874-6522

Cell: (867) 875-7137 publicworks@hayriver.com

www.hayriver.com [hayriver.com]



From: Town Hall < townhall@hayriver.com > Sent: Tuesday, April 2, 2024 11:58 AM

To: Phil Valor, coublingering @hayriver.com >

To: Phil Vokey <publicworks@hayriver.com>

Subject: FW: 10-593 - Household Waste Acceptance Inquiry - April 2nd, 2024

Hi Phil,

Please reply to message below.

Thank you,

Alysson Rae Capulso

Customer Service Clerk
Town of Hay River
100-62 Woodland Drive
Hay River, NT, X0E 1G1

Em: reception@hayriver.com Ph: (867)874-6522 ext 5



From: Josh.Myers@parsons.com <Josh.Myers@parsons.com>

Sent: Tuesday, April 2, 2024 9:41 AM

To: Town Hall <townhall@hayriver.com>

Subject: 10-593 - Household Waste Acceptance Inquiry - April 2nd, 2024

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Good Morning,

I would like to inquire about waste acceptance at the Hay River landfill facility for the following:

- Household non-hazardous waste (plastics, rubber gloves, etc.) – Approximately nineteen to twenty 55-gallon garbage bags over about 19 days (approximately one bag per day).

If you can confirm this material will be accepted at your facility that would be great. Also, could you please provide a quote for this work if you are able to accept it and there is a cost associated with accepting the waste?

Thanks,

Josh Myers, P.Geo.
7 Terracon Place, Winnipeg, MB, R2J 4B3
Josh.Myers@Parsons.com
P: +1 (204) 201-1110 M: +1 (204) 330-0076

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Myers, Josh [NN-CA]

From: Keith Baron <kbaron@secure-energy.com>

Sent: Friday, April 12, 2024 3:50 PM

To: Myers, Josh [NN-CA]
Cc: Bradley Lazoruk

Subject: [EXTERNAL] Re: 10-593 Hay River - Waste Acceptance Inquiry

Good afternoon Josh.

After looking through the email chain and also being able to accept this Hydro Vac Slurry for proper disposal at our Rainbow Lake FST. Cost is \$435.00 m3

Thank you

Keith Baron | Field Sales Representative – Landfill Solutions West Region

SECURE ENERGY

Mobile: 780-814-4910

We want your feedback - please take a moment to fill out our <u>Customer Engagement Survey [surveymonkey.com]</u>

Good Afternoon Josh,

After speaking with our regulatory team, it looks like we will be able to accept this at our Rainbow Lake facility. I have added in Keith our Sales Rep. for that facility and he will send over some pricing to you.

Regards,

Brad Lazoruk | Field Sales Representative - Waste Management

SECURE ENERGY

Office: (780) 830-3329 Mobile: (780) 830-8460

Grande Prairie, AB

From: Josh.Myers@parsons.com < Josh.Myers@parsons.com >

Sent: Friday, April 12, 2024 10:16 AM

To: Bradley Lazoruk

 Co: Peter Nelson <pnelson@secure-energy.com>

Subject: RE: 10-593 Hay River - Waste Acceptance Inquiry

Good Morning Brad,

With regards to the volume, we are thinking somewhere between 8 to 12 tonnes (one hydrovac truck per day essentially). The subsurface drilling program is at the Imperial Oil Terminal in Hay River, NT. We will be drilling mainly along the dock area on the south side of the property outside of the tank berms. The original monitoring wells on Site were destroyed when the dock was repaired, so this will be about replacing them and installing a few new MWs as well.

Thanks,

Josh Myers, P.Geo.

7 Terracon Place, Winnipeg, MB, R2J 4B3

Josh.Myers@Parsons.com
P: +1 (204) 201-1110 M: +1 (204) 330-0076

<image001.png>

From: Bradley Lazoruk < blazoruk@secure-energy.com >

Sent: Friday, April 12, 2024 10:38 AM

To: Myers, Josh [NN-CA] < <u>Josh.Myers@parsons.com</u>> **Cc:** Peter Nelson < pnelson@secure-energy.com>

Subject: [EXTERNAL] RE: 10-593 Hay River - Waste Acceptance Inquiry

Good Morning Josh,

Can you please expand a bit on the detail of you project with regards to volumes and more details on what the subsurface drilling program is (gas station remediation, etc.)?

Regards,

Brad Lazoruk | Field Sales Representative – Waste Management

SECURE ENERGY

Office: (780) 830-3329 Mobile: (780) 830-8460

Grande Prairie, AB

From: Bradley Lazoruk

Sent: Thursday, April 11, 2024 12:22 PM

To: Josh.Myers@parsons.com

Subject: RE: 10-593 Hay River - Waste Acceptance Inquiry

Hello Josh,

I am working with our regulatory team to see what option we have.

Regards,

Brad Lazoruk | Field Sales Representative – Waste Management

SECURE ENERGY

Office: (780) 830-3329 Mobile: (780) 830-8460

Grande Prairie, AB

From: Josh.Myers@parsons.com <Josh.Myers@parsons.com>

Sent: Tuesday, April 9, 2024 2:53 PM

To: Bradley Lazoruk < <u>blazoruk@secure-energy.com</u>> **Subject:** RE: 10-593 Hay River - Waste Acceptance Inquiry

Hello Brad,

What other options do we have? As of now that is our most recent soil data sampled from the Site. We have groundwater data taken from 2022 and groundwater data from this year as well.

Thanks,

Josh Myers, P.Geo.
7 Terracon Place, Winnipeg, MB, R2J 4B3
Josh.Myers@Parsons.com
P: +1 (204) 201-1110 M: +1 (204) 330-0076
<image001.png>

From: Bradley Lazoruk <blazoruk@secure-energy.com>

Sent: Tuesday, April 2, 2024 3:38 PM

To: Myers, Josh [NN-CA] < <u>Josh.Myers@parsons.com</u>>

Subject: [EXTERNAL] RE: 10-593 Hay River - Waste Acceptance Inquiry

Hello Josh,

I took a quick look and as things currently stand, I don't think we can accept for the following reasons:

- 1. Analytical needs to be within a 12-month timeline and the snapshot provided is from 2021. We also need the complete results, signed in PDF.
- 2. Analytical would need to have the AB or BC Class II package ran in order to be acceptable.
- 3. Overall, the BTEX numbers aren't terrible (one fails for Total Xylene) but the main concern is that each sampled failed for Lead (has be < 5mg/kg) to be class II. It would make the material Haz and it being out of province none of our Class I LF's will take it.

If you can provide up to date analytical with the proper packages we can determine if any of the landfills here will take it. If the concentrations don't come down, then we would have to look at other options.

Regards,

Brad Lazoruk | Field Sales Representative – Waste Management

SECURE ENERGY

Office: (780) 830-3329 Mobile: (780) 830-8460

Grande Prairie, AB

From: Josh.Myers@parsons.com <Josh.Myers@parsons.com>

Sent: Tuesday, April 2, 2024 7:57 AM

To: Bradley Lazoruk < <u>blazoruk@secure-energy.com</u>> **Subject:** 10-593 Hay River - Waste Acceptance Inquiry

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Hello Brad,

I would like to inquire about acceptance of hydrovac slurry from a subsurface drilling program in Hay River, NT expected to occur in August 2024.

Soil analytical results for the Site are attached with highest concentrations to date. I cannot find a blank waste profile form to fill out for the Site, if you could send me one I can fill it out and send it to you today as well. Hydrovac slurry will be delivered in bulk via Badger.

Could you please provide a quote for this work if you are able to accept it?

Thanks,

Josh Myers, P.Geo.
7 Terracon Place, Winnipeg, MB, R2J 4B3
Josh.Myers@Parsons.com
P: +1 (204) 201-1110 M: +1 (204) 330-0076
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Myers, Josh [NN-CA]

From: Caitlyn Thompson <cthompson@kbl.ca>

Sent: Tuesday, April 2, 2024 9:45 AM

To: Myers, Josh [NN-CA]

Subject: [EXTERNAL] RE: 10-593 Hay River - Waste Acceptance Inquiry

Josh,

No issues with the acceptance. Because this is coming through the transfer facility we don't require a waste profile form as you have provided the analytical.

Cheers,



Caitlyn Thompson

Operations Manager

p: 867.873.5263c: 867.688.1606f: 867.669.5555

Box 1895, 17 Cameron Road, Yellowknife, NT X1A 2P4

kblenv.com [kblenv.com]

From: Josh.Myers@parsons.com < Josh.Myers@parsons.com >

Sent: Tuesday, April 2, 2024 8:27 AM

To: Caitlyn Thompson <cthompson@kbl.ca>

Subject: 10-593 Hay River - Waste Acceptance Inquiry

Good Morning Caitlyn,

I would like to inquire about acceptance of drill cuttings and monitoring well purge water for a proposed subsurface drilling program in Hay River, NT expected to occur in August 2024.

The most recent soil analytical results for the Site are attached. I cannot find a blank waste profile form to fill out for the Site, if you could send me one I can fill it out and send it to you today as well. Drill cuttings will be delivered in soil bags, purge water will be delivered via jerry cans.

Please let me know if you have any questions.