



Report Date: February 28, 2025

File: 112057

Report Number: 238568

DEEP WATER RECOVERY LTD.

5084 Island Highway S

PO Box 276

Union Bay BC V0R 3B0

Dear DEEP WATER RECOVERY LTD.,

Re: An Administrative Penalty Referral

On February 28, 2025, Ministry of Environment and Climate Change Strategy (Ministry Officer Kyle Lynch (Officer Lynch conducted an office-review inspection of the Deep Water Recovery Ltd. (DWR ship breaking facility (Facility located at 5084 Island Highway South, Union Bay, B.C.

The inspection was conducted to verify compliance with Pollution Abatement Order 112057 (Order which requires DWR to: immediately stop the release or discharge of effluent with concentrations of copper, lead and zinc above BC Water Quality Guidelines BC WQG to the environment; to hire qualified professionals to assess site conditions; and to submit monitoring reports, updates, and recommendations to the Ministry. The Order does not provide authorization to discharge waste to the environment.

The Order was issued on March 15, 2024, and was last amended on January 10, 2025. The Order is currently under appeal to the Environmental Appeal Board (EAB) (EAB-EMA-24-A014(a)). DWR applied for a stay of the Order pending the outcome of EAB EMA-24-A014. On June 7, 2024, the EAB denied the stay application and the appeal of the Order is still in progress. On December 12, 2024, DWR was issued AMP 2024-43 for \$19,450 for failure to comply with Required Action 1 of the Order. On January 9, 2025, DWR appealed AMP 2024-43.

Prior to the Order, on January 23, 2023, the Ministry issued Information Order 111550 (IO) to DWR, which was cancelled on March 15, 2024. On October 11, 2023, DWR was issued AMP 2023-31 for \$500 for failure to comply with the IO. AMP 2023-31 is currently under appeal to the EAB (EAB-EMA-23-A025).

For your information, this inspection record is being referred for an Administrative Penalty.

Inspection Details:

The Facility is located on a property in Union Bay which has a history of industrial land-use, including a log sort, wood waste landfill and coal storage. A provincial highway and former railway run along the upslope property boundary. Environmental Site Assessments in 2005 and 2008 found elevated levels of hydrocarbons and trace to low levels of metals in soils on the site.

This report assesses compliance with the Order from December 28, 2024, to January 31, 2025 (Inspection Period) and included review of the following documents:

- Site Activity and Discharge Identification Update Report, dated April 4, 2024 prepared by Darryl Stowe, P.Chem, Senior Environmental Scientist, Envirochem Services Inc. (**Discharge Report**)
- Deep Water Recovery Ltd.: Assessment of potential impact of unauthorized discharge, dated August 1, 2024, prepared by Dwayne Minton, Ph.D., R.P.Bio, EIA Biologist, BC Ministry of Environment and Parks (**2024 Impact Assessment**)
- Pollution Abatement Order 112057, Proposed Surface Water Sampling and Management Plan, Deep Water Recovery Ltd. 5084 Island Highway South, Union Bay, BC, dated September 13, 2024, prepared by Darryl Stowe, Chem, Senior Environmental Scientist, Envirochem Services Inc. (**2024 Sampling Plan**)

**Ministry of Environment
and Climate Change
Strategy**

Compliance and
Environmental
Enforcement Branch

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2080-A
Labieux Rd
Nanaimo BC V9T 6J9

Telephone: 250 751 3100
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- Effluent Quality Mitigation & Treatment Plan Deep Water Recovery, Union Bay, BC Revision No. 1.3, dated October 2024, prepared by Darryl Stowe, P.Chem, Senior Environmental Scientist, Envirochem Services Inc. **(2024 Treatment Plan)**
- Surface Water Sampling -December 2024 RE: PAO 112057, dated January 1, 2025, prepared by Gillian Helpard, Chem, President TTOHS **(December 2024 Monitoring Report)**
- Surface Water Sampling -January 2025 RE: PAO 112057, dated February 15, 2025, prepared by Gillian Helpard, Chem, President TTOHS **(January 2025 Monitoring Report)**
- 2025-02-18 PAO 112057 202501 Memo of Correction Monthly Report and Appendix C part 1 + 2, dated February 15, 2025, prepared by Gillian Helpard, Chem, President TTOHS **(January 2025 Correction Reports)**

Compliance Assessment

Below are the requirements that were assessed for compliance during this inspection, as well as the associated details/findings and any actions required.

Requirement Description:

Pollution Abatement Order - Required Action 1

1.: Immediately cease the release or discharge of effluent with concentrations of Copper, Lead and Zinc above BCWQG levels to the environment.

Details/Findings:

The 2024 Impact Assessment states that run-off from the Facility enters Baynes Sound, a provincially significant ecological area. The Order prohibits discharge of effluent from the Facility that exceeds BC WQG for copper, lead and zinc. On January 22, 2025, the Ministry issued Inspection Report (IR) 238061. That IR assessed compliance with the Order from November 1, 2024, to December 31, 2024, but noted that, *"The December 2024 Monitoring Report stated that TTOHS attended the Facility on December 28, 2024, and collected samples from all three sump discharge locations, as well as a background sample from the north creek by the highway. The laboratory results for these samples were not presented in the December 2024 Monitoring Report. Compliance with Action Item 1 for the month of December cannot be determined without these results. Therefore, compliance with Action Item 1 for December is not assessed in this inspection report."*

The January 2025 Monitoring Report included the sampling results for December 28, 2024 discharges from the Facility at Sump 1, Sump 2, Sump 3, and results from background "North Creek" location. The results, presented in the Table below, show that discharges from Sumps 1, 2 and 3 failed to meet short-term and long-term BC WQG for Copper (total) (0.003 mg/L and 0.002 mg/L) and failed to meet long-term BCWQG at North Creek. The highest Copper (total) levels was 0.0194 mg/L at Sump 1 which is 546% above long-term BC WQG and 870% above short-term BCW QG.

The results presented in the Table below, show that discharges from Sumps 1, 2 and 3 failed to meet short-term and long-term BC WQG for Zinc (total) (0.01 mg/L and 0.055 mg/L) at Sump 1, 2 and 3. The highest Zinc (total) was 0.144 mg/L which is 1340% above long-term BC WQG and 161% above short-term BC WQG.

The results presented in the Table below,, show that discharges from Sumps 1 failed to meet long-term BC WQG for Lead (total) (0.002 mg/L) at Sump 1. The highest Lead (total) was 0.00285 mg/L which is 43% above long-term BC WQG.

Sampling Results - Deep Water Recovery December 2024

based Surface Water Sampling -January 2025 RE: PAO 112057, dated February 15, 2025, prepared by Gillian Helpard, Chem, President TTOHS (January 2025 Monitoring Report)

Table 1		Sample Results				Approved Guidelines	
		Sample Location	Sump 1 Discharge	Sump 2 Discharge	Sump 3 Discharge	North Creek by Highway	BC Water Quality Guidelines (Marine)
Parameter	Units	Date Sampled	28-Dec-	28-Dec-	28-Dec-	28-Dec-	Long Term
		2024	2024	2024	2024	2024	Chronic
Copper (Total)	mg/L	0.0194	0.0142	0.0189	0.00238		0.002
Lead (Total)	mg/L	0.00285	0.000604	0.000951	0.00018		0.003
Zinc (Total)	mg/L	0.144	0.0296	0.0584	0.0035		0.02
Benzo(a) pyrene	µg/L	0.0092	<0.0050	<0.0050	100		0.01
Percent Survival in 100% (v/v) sample	% v/v	70	100	100	N/A		N/A
Legend							
		0.1234	does not meet BC WQG Long Term Limit				
		0.1234	does not meet BC WQG Short Term or Long Term Limit				

Therefore DWR has failed to meet short and long-term BC WQG for Copper (total), and Zinc (total) and failed to meet short term BCWQG for Lead (total) at Sump 1.

A review of the January 2025 Monitoring Report determined that no significant rainfall events were recorded for the inspection period. Site visits were conducted by TTOHS on January 2, 4, 6, 8, 14, 16, 24, 27, 29, and 31, 2025. On January 2 and 4, 2025 TTOHS noted that "discharge from the sumps" was observed but samples were not taken. On the remaining

site visits in January, TTOHS stated that no effluent was able to be sampled as "All discharge locations were dry". Therefore, it was unable to be determine if effluent discharged during the inspection period exceeds concentrations of Copper, Lead and Zinc above BC WQG parameters.

On December 28, 2024, DWR discharged effluent with concentrations of copper, lead and zinc above BC WQG levels to the environment, therefore, DWR is out of compliance with Required Action 1.

This non-compliance is being referred for an Administrative Penalty.

The Ministry has previously found DWR out of compliance with Order Requirement 1:

- In IR 228922, August 2, 2024, the Ministry found that DWR failed to comply with Order Requirement 1 during the period of April 17, 2024 to June 26, 2024. The response was a Referral for Administrative Penalty. On December 12, 2024, DWR was issued AMP 2024-43 for \$19,450 for failure to comply with Requirement 1 of the Order. This AMP has been appealed by DWR.
- In IR 238061, January 22, 2025, the Ministry found that DWR failed to comply with Order Requirement 1 on November 16 and November 25, 2024. The report outcome was a Referral for Administrative Penalty.

Compliance:

Out

Actions to be taken:

Immediately cease the release or discharge of effluent with concentrations of Copper, Lead and Zinc above BC WQG levels.

Requirement Description:

Pollution Abatement Order - Required Action 3

3. Cause a Qualified Professional to complete an [updated](#) Effluent Sampling and Management Plan (Plan) and submit it to the Director for approval [by September 13, 2024](#). [The Plan must be implemented, including any amendments to the plan identified by the Director, by a date specified in writing by the Director](#). This Plan must include:

a) Ongoing inspection at least twice per week, of discharge status at each discharge location identified in the Report, with written records and photographs, and inspection of Facility to identify any other discharges that may arise, under the supervision of a Qualified Professional;

b) Ongoing sampling at least once per calendar month and during or within 72 hours of a Significant Rainfall Event of:

- Sump 1;
- Sump 2;
- Sump 3;
- background location NC-HWY;
- [any points of discharge to the foreshore including surface water run-off from unpaved areas outside the Sump catchments where vessel repair, maintenance, and/or dismantling activities have taken or are taking place;](#)
- [any points of discharge from the foreshore where vessel repair, maintenance, and/or dismantling activities have taken place, and;](#)
- any additional discharge locations identified by the Qualified Professional in the Report for laboratory analysis of:
 - Total Suspended Solids
 - pH
 - Total and Dissolved Metals
 - Any additional COPC identified in the Report [Discharge Report]

c) Ongoing sampling and analysis at least once per calendar month and during or within 72 hours of a Significant Rainfall Event of:

- each Sump location;
 - [any points of discharge to the foreshore including surface water run-off from unpaved areas outside the Sump catchments where vessel repair, maintenance, and/or dismantling activities have taken or are taking place, and;](#)
 - [any points of discharge from the foreshore where vessel repair, maintenance, and/or dismantling activities have taken place;](#)
- [for Rainbow Trout Toxicity 96 hr LC50 in 100% effluent. 96 hr LC50 100% means that, in a static bioassay on rainbow trout, at least 50% of the test fish must survive 96 hours in 100% effluent; and](#)

[Samples collected from the Sumps/treatment system\(s\) are to be collected at the point\(s\) of discharge to the environment. All samples collected must be collected upgradient of the marine environment.](#)

d) Actions proposed to eliminate the discharge of Total and Dissolved copper, lead and zinc in concentrations greater than BC WQG levels to the environment.

a. [By October 31, 2024, submit to the Director for approval, an effluent quality mitigation and treatment plan to eliminate the discharge of Total and Dissolved copper, lead and zinc in concentrations greater than BC WQG levels to the environment, developed and implemented under the direction of a Qualified Professional.](#)

b. [By October 18, 2024, submit to the Director for approval a design prepared by a Qualified Professional for a water treatment system\(s\) at the point of discharge on Sumps 1, 2 and 3 in order to cease the release or discharge of effluent with concentrations of copper, lead and zinc above BC Water Quality Guidelines \(BC WQG\) levels to the environment.](#)

c. [Under oversight of a Qualified Professional, install the approved water treatment system\(s\) including any amendments to the design as identified by the Director, by December 15, 2024.](#)

* Text in blue is from the July 12, 2024, amendment.

** Dates have been updated to reflect due date extensions issued subsequent to the Order and amendment.

Details/Findings:

On July 12, 2024, the Director issued an amendment to the Order (See Appendix 1). The amendment revised the due date for the Effluent Sampling and Management Plan, added additional sampling locations in the foreshore, required submission of an effluent quality mitigation and treatment plan and required DWR to design and install a water treatment system to eliminate the discharge of Total and Dissolved copper, lead and zinc in concentrations greater than BC WQG levels.

Required Action 3(d)(c) states, "Under oversight of a Qualified Professional, install the approved water treatment system(s) including any amendments to the design as identified by the Director, by a date specified in writing by the Director."

The due date for treatment plan submission was extended several times, with the final date being October 31, 2024. DWR submitted the 2024 Treatment Plan and system design on October 31, 2024. The 2024 Treatment Plan was approved by the Director on November 7, 2024. The approval e-mail stated, "in accordance with Requirement 3 of the Order, the approved water treatment system must be installed by December 15, 2024." Section 2.2. of DWR's 2024 Treatment Plan states, "installation of the water treatment system will start immediately, once the system design has been approved for installation." On December 13, 2024, DWR requested a 60-day extension for water treatment system installation. The Director denied the extension request on December 16, 2024.

Officer Lynch contacted the DWR Operations Manager, Mark Jurisich, via phone on February 21, 2025, to determine if the water treatment system was in place. The Operations Manager stated that the water treatment system was installed but was not yet in operation treating effluent discharge.

As the system was not installed by December 15, 2024, DWR is out of compliance with Required Action 3.

This non-compliance is being referred for an Administrative Penalty.

The Ministry previously found DWR out of compliance with the requirement to install the water treatment system in IR 238061, dated January 22, 2025.

Compliance:

Out

Actions to be taken:

Immediately install, commission and operate the approved water treatment system.

Requirement Description:

Pollution Abatement Order - Required Action 4

4.: On a date to be determined, Implement the approved Plan on a date to be specified in writing by the Director.

Details/Findings:

There are two Plans approved by the Director. The 2024 Sampling Plan was approved by the Director on September 20, 2024. The approval stated the 2024 Sampling Plan must be implemented by October 1, 2024, and that the first monthly report was due November 1, 2024, and monthly thereafter. The 2024 Treatment Plan was approved by the Director on November 7, 2024. In the approval e-mail, the Director stated the approved Plan must be implemented on November 8, 2024.

2024 Sampling Plan Implementation

The main objective of the 2024 Sampling Plan is to monitor discharges for exceedances to the BC WQG. Samples will be collected at Sumps 1, 2 and 3, North Creek and any discharges identified in the foreshore. Sampling is to occur monthly and during or immediately after significant rainfall events. In addition, the 2024 Sampling Plan states there will be twice weekly inspections of the sumps and the foreshore area where the vessel Miller Freeman is currently located.

DWR completed sampling for the month of December on December 28, 2024. Laboratory results were not available in the December 2024 Monitoring Report but were provided in the January 2025 Monitoring Report. All required parameters were analyzed for the December samples. No foreshore discharges were identified and no foreshore discharge samples were collected. The January 2025 Monitoring Report included the sampling results for December 28, 2024 discharges from the Facility at Sump 1, Sump 2, Sump 3, and results from "North Creek", upstream from the Facility. Therefore, these results can now be assessed.

A review of the January 2025 Monitoring Report determined that the sampling on December 28, 2024, included analysis for all required parameters.

A review of the January 2025 Monitoring Report determined that TTOHS conducted site visits on January 2, 4, 6, 8, 14, 16, 24, 27, 29 and 31, 2025. However, as the Required Action requires twice weekly inspections and only one inspection was conducted during for the week of January 19-25, 2025, DWR is out of compliance with Required Action 4.

This non-compliance is being referred for an Administrative Penalty.

A review of the the 2024 Sampling Plan states that Ongoing sampling at least once per calendar month and during or within 72 hours of a Significant Rainfall Event of: Sump 1, Sump 2, Sump 3, background location NC-HWY, any points of discharge to the foreshore including surface water run-off from unpaved areas outside the Sump catchments where vessel repair, maintenance, and/or dismantling activities have taken or are taking place, any points of discharge from the foreshore where vessel repair, maintenance, and/or dismantling activities have taken place

A review of the January 2025 Monitoring Report determined that sampling was not conducted in January 2025 despite discharge being noted on January 2 and 4, 2025. Therefore, DWR is out of compliance with Required Action 4.

This non-compliance is being referred for an Administrative Penalty.

2024 Treatment Plan Implementation

The Director approved the 2024 Treatment Plan on November 7, 2024, and required the plan to be implemented by November 8, 2024. Action items included grading, drain installation, catchment area upgrades, installing a new oil-water separator and tarping of material re-located from the berm along the North side of the property.

The water treatment system is to be installed at Sump 1. According to the November 2024 Monitoring Report Correction, Sump 1 receives the majority of water from the paved area. In the 2024 Treatment Plan, DWR states, "The catchment area for Sump 1 is the area where vessel repair, maintenance, and recycling will take place." The grading, drain installation and new oil-water separator occur in other parts of the Facility and will direct all Facility run-off to Sump 1 for treatment. The planned water treatment system is designed to treat this run-off before discharge.

In a December 15, 2024 e-mail, the DWR Operations Manager, Mark Jurisich, stated, "part of the water treatment process requires us to divert water from the Southern side of the haul-out ramp to an area adjacent to the asphalt which it is then to be pumped onto the asphalt and drain in to the primary sump of the work yard where it would then pass through the water

treatment system. In order for us to complete these earthworks we first need to remove the Miller Freeman vessel from the ramp which we are in the process of doing. [...] I will need 60 working days or at least till the end of February. We must move the Miller Freeman in order to clear the ramp, and then we can complete the work you have requested."

In a January 16, 2025, phone conversation with Officer Deagle, the DWR Operations Manager stated that the water treatment system has not yet been installed. Officer Lynch contacted the DWR Operations Manager, Mark Jurisich, via phone on February 21, 2025, to determine if the water treatment system was in place. The Operations Manager stated that the water treatment system was installed but was not yet in operation treating effluent discharge.

Based on the December 15, 2024, December 2024 Monitoring Report, January 2025 Monitoring Report, phone conversation with Officer Deagle on January 16, 2025 and phone conversation with Officer Lynch on February 21, 2025 determined that the planned Facility improvements have not been implemented. Therefore, DWR is out of compliance with Required Action 4.

This non-compliance is being referred for an Administrative Penalty.

According to the 2024 Treatment Plan, a significant amount of leachate was generated from the wood-waste berm along the north of the site. The leachate appeared to be to be generated from rainwater percolating through the porous berm during the rainy seasons extracting contaminants from the wood waste. The 2024 Treatment Plan stated that the relocated materials would be covered to prevent leachate generation. On January 16, 2025, the DWR Operations Manager told Officer Deagle that the relocated berm material has not been covered. They also stated that a contractor had collected samples of the material and were waiting for the results. The 2005 and 2008 Site Assessments found low potential for contamination from this berm.

Officer Lynch contacted the DWR Operations Manager via phone on February 21, 2025, to determine if the relocated materials were covered to prevent leachate generation. As stated by Operations Manager the relocated materials were still uncovered. Therefore, DWR is out of Compliance with Required Action 4.

This non-compliance is being referred for an Administrative Penalty.

Compliance:

Out

Actions to be taken:

- Implement the 2024 Treatment Plan.
- Implement the 2024 Sampling Plan.

Details/Findings:

Ministry of Environment and Climate Change Strategy	Compliance and Environmental Enforcement Branch	Mailing Address:	Telephone: 250 751 3100
		2080-A	Facsimile: 250 751 3103
		Labieux Rd	Website: www.gov.bc.ca/env
		Nanaimo BC V9T 6J9	

Compliance History:

2025-01-23 IR 238061 AMP: Pollution Abatement Order - Required Action 1 1, Pollution Abatement Order - Required Action 3 3, Pollution Abatement Order - Required Action 4 4
2024-12-13 IR 236755 AMP: Pollution Abatement Order - Required Action 4 4, Pollution Abatement Order - Required Action 5 5, Pollution Abatement Order - Required Action 6 6
2024-11-21 IR 235281 Warning Codes and Regs: Pollution Abatement Order - Required Action 4 4, Pollution Abatement Order - Required Action 5 5
2024-08-23 IR 230462 Warning Codes and Regs: Pollution Abatement Order - Required Action 3 3
2024-08-02 IR 228922 AMP: Pollution Abatement Order - Required Action 1 1
2024-04-22 IR 222735 Warning 120(7): Pollution Abatement Order - Required Action 2 2, Pollution Abatement Order - Required Action 3 3, Pollution Abatement Order - Required Action 6 6

The Ministry of Environment Compliance and Enforcement Policy and Procedure (C&E Policy) prescribes common requirements and procedures for all Ministry staff to ensure consistent and risk-based assessment and response to non-compliance. Using the Non-Compliance Decision Matrix, the compliance determination for this inspection has been assessed as Level 2, Category C, AMP.

More information about Environmental Compliance, the Non-Compliance Decision Matrix, and reporting and data submission requirements can be found at the links below:

General compliance information:

www.gov.bc.ca/environmentalcompliance

Non-Compliance Decision Matrix information:

www.gov.bc.ca/environment/how-compliance-is-assessed

Reporting and data submission requirements (to be sent to EnvAuthorizationsReporting@gov.bc.ca):

<https://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/comply>

Please be advised that this inspection report may be published on the provincial government website within 7 days.

If you have any questions about this letter, please contact the undersigned.

Yours truly,

Kyle Lynch
Environmental Protection Officer

cc:

Attachments:

Deliver via:

Email: ☒ Fax: ☐ Mail: ☐
Registered Mail: ☐ Hand Delivery: ☐

**Ministry of Environment
and Climate Change
Strategy**

Compliance and
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Please note that sections of the permit, regulation or code of practice referenced in this inspection record are for guidance and are not the official version. Please refer to the original permit, regulation or code of practice.

To see the most up to date version of the regulations and codes of practices please visit
<http://www.bclaws.ca>

If you require a copy of the original permit, please contact the inspector noted on this inspection record.

It is also important to note that this inspection record does not necessarily reflect each requirement or condition of the authorization therefore compliance is noted only for the requirements or conditions listed in the inspection record.