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## Tesoro Alaska Company LLC

Kenai Refinery  
54741 Tesoro Road  
Kenai, AK 99611  
Tel: 907-776-8191

October 1, 2021

Pete Campbell  
Environmental Specialist.  
Alaska Department of Environmental Conservation  
43335 K-Beach Road, Suite 11  
Soldotna, Alaska 99669

Submitted via email:  
Peter.Campbell@alaska.gov

**Re: Treated Groundwater Injection Permit  
Quarterly Report**

Dear Mr. Campbell:

Enclosed is the report for Tesoro's Kenai Refinery groundwater remediation system for July 1 through September 30, 2021. This data is to be submitted on a quarterly basis required by the Treated Groundwater Injection Plan.

The Treated Groundwater Injection Plan was revised and approved by the Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC), on October 31<sup>st</sup> 2017. As per the revised plan, Trihydro Corporation supplied a Qualified Environmental Professional (QEP) to collect and report the required data.

If you have any questions, please contact me at (907) 776-2090.

Sincerely,

Stephanie Plate, PE  
Environmental Engineer

Enclosure (1)



**JULY, AUGUST, SEPTEMBER 2021  
TREATED GROUNDWATER REPORT  
PREPARED FOR TESORO ALASKA COMPANY, LLC**

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**October 1, 2021**

**Project #: 39B-003-007**

**SUBMITTED BY:** Tesoro Alaska Company, LLC

54741 Tesoro Road, Kenai, AK 99611

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**PREPARED BY:** Trihydro Corporation

312 Tyee Street, Soldotna, AK 99669

ENGINEERING SOLUTIONS. ADVANCING BUSINESS.

**CERTIFICATION STATEMENT**  
**JULY, AUGUST, SEPTEMBER 2021**  
**TREATED GROUNDWATER REPORT**  
**PREPARED FOR TESORO ALASKA COMPANY, LLC**

I certify that the work presented in this report was performed by me or under my supervision. To the best of my knowledge, the data contained herein are true and accurate and the work was performed in accordance with professional standards.



Date: 10/01/2021

Brianna Force, Project Manager  
Qualified Environmental Professional in accordance with 18 AAC 75.333



## **Introduction**

This report summarizes the treated groundwater activities for the third quarter of 2021 (July, August, and September) at the Marathon Kenai Refinery as required by Treated Groundwater Injection Plan.

Marathon Kenai Refinery is permitted to inject treated water from two treatment systems including: 1) the PM Tray Strippers (inactive) injected to a trench injection system (PM), and 2) the Calgon Granular Activated Carbon (GAC) Treatment injected into a series of injection wells (Calgon).

## **Results Summary**

The PM system is inactive; therefore, all groundwater continues to be diverted to the Calgon treatment system. Samples were collected monthly from the Calgon treatment system effluent and analyzed for the constituents listed on Table 1. The Calgon effluent samples were non-detect for all constituents. All Calgon system flow limits and effluent concentrations were below ADEC criteria for the quarter. The latest carbon replacement occurred on September 29, 2021.

Table 1 summarizes flow and sample results for the Calgon treatment system

**TABLE 1. TREATED WATER FLOW AND EFFLUENT ANALYTICAL RESULTS**  
**MARATHON KENAI REFINERY**  
**JULY, AUGUST, SEPTEMBER 2021**

<b><u>Calgon Unit</u></b>		<b>JULY</b>	<b>AUGUST</b>	<b>SEPTEMBER</b>
	<b>Limit</b>			
Total Flow (gpd)*	<b>1,000,000</b>	236,160	233,280	231,840
Sample Collection Date		7/15/2021	8/3/2021	9/7/2021
Effluent Limits (µg/L)				
Benzene	<b>4.6</b>	U (0.4)	U (0.4)	U (0.4)
Toluene	<b>1,100</b>	U (1.0)	U (1.0)	U (1.0)
Ethylbenzene	<b>15</b>	U (1.0)	U (1.0)	U (1.0)
Total Xylenes	<b>190</b>	U (3.0)	U (3.0)	U (3.0)
n-Butylbenzene	<b>1,000</b>	U (1.0)	U (1.0)	U (1.0)
sec-Butylbenzene	<b>2,000</b>	U (1.0)	U (1.0)	U (1.0)
tert-Butylbenzene	<b>690</b>	U (1.0)	U (1.0)	U (1.0)
Isopropylbenzene(cumene)	<b>450</b>	U (1.0)	U (1.0)	U (1.0)
Napthalene	<b>1.7</b>	U (1.0)	U (1.0)	U (1.0)
1,2,4-Trimethylbenzene	<b>15</b>	U (1.0)	U (1.0)	U (1.0)
1,3,5-Trimethylbenzene	<b>120</b>	U (1.0)	U (1.0)	U (1.0)

µg/L - micrograms per liter

U - Non-Detectable at (detection limit)

gpd- gallons per day

\*Flow at time of sample collection

**Bolded** results are above ADEC standards