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June 4, 2024

Ms. Gwynne Shotwell, President and Chief Operating Officer
Space Exploration Technologies, Corp.
1 Rocket Road
Brownsville, TX 78521

Corporation Service Company
/ dba CSC – Lawyers Incorporating Service Company
Registered Agent for Space Exploration Technologies, Corp.
211 E. 7th St., Ste. 620
Austin, TX 78701

VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED

RE: Notice of Intent to Sue for Violations of the Federal Clean Water Act Based on Unauthorized Discharges from Rocket Launches and Static Fire Tests to Waters of the United States at SpaceX Facilities in Boca Chica, Texas.

Dear Ms. Shotwell:

By this letter, Save RGV notifies you of its intent to file a citizen suit against Space Exploration Technologies, Corp. (“SpaceX”) on or after the 60th day from the date of this notice for violations of the Federal Water Pollution Control Act, 33 U.S.C. §§ 1251 *et seq.* (“Clean Water Act” or “CWA”), and for failure to obtain a permit under the Texas Pollutant Discharge Elimination System (“TPDES”) program for industrial wastewater discharges.

Pursuant to section 505(b) of the CWA, Save RGV provides this notice to the Administrator of the United States Environmental Protection Agency (“EPA”), the Regional Administrator for EPA Region 6, the Texas Attorney General, the United States Attorney General, and the Executive Director of the Texas Commission on Environmental Quality (“TCEQ”), and to SpaceX, as the alleged violator. *See* 33 U.S.C. § 1365(b)(1)(A); 40 C.F.R. § 135.2(a).

Save RGV intends to file suit pursuant to section 505(a)(1) of the Clean Water Act, 33 U.S.C. § 1365(a)(1). The suit will allege that since at least 2023, SpaceX’s past and continuing practices at its rocket launch facilities in Boca Chica, Cameron County, Texas violate federal and state law and have harmed and will continue to harm waters of the United States and the interests of Save RGV and its members.

I. Save RGV

Save RGV is a Texas non-profit corporation that advocates for environmental justice and sustainability and the health and well-being of the Rio Grande Valley community. Save RGV is a “citizen” within the meaning of 33 U.S.C. § 1365(g), because it is an organization with an interest that is adversely affected, and its members have an interest that is adversely affected by SpaceX’s CWA violations. As part of its mission, Save RGV is committed to opposing polluting industries, such as SpaceX’s facilities that are releasing unpermitted toxic discharges into the waters of the United States. Save RGV includes residents of South Texas, specifically residents who live near and swim, boat, fish, birdwatch, and otherwise recreate in and around the waterways around Boca Chica including, but not limited to, the South Bay of the Lower Laguna Madre—waterways that are impacted by the activities that are the subject of this notice letter.

SpaceX’s unpermitted discharges of untreated industrial wastewater degrade water quality and harm aquatic life in these waters and thus impair Save RGV’s members’ use and enjoyment of the waters. SpaceX’s industrial discharges from its deluge system are ongoing and continuous, occurring regularly during each launch and each static fire test.

II. SpaceX’s violations of the Clean Water Act

The Clean Water Act Section 301(a) prohibits the discharge of any pollutant by any person, except as authorized by a National Pollutant Discharge Elimination System (“NPDES”) permit. 33 U.S.C. § 1311(a). A NPDES permit may be issued to allow the owner or operator of a facility to discharge pollutants subject to certain limitations, such as monitoring, reporting, effluent standards, and other terms. *Id.* § 1342(a). A discharge not authorized by a Clean Water Act permit violates the Act.

The Clean Water Act allows any state to assume authority to administer its own permitting program in place of the federal program. *Id.* § 1342(b)-(c). Texas administers the Texas Pollutant Discharge Elimination System program under which it issues TPDES permits to entities wishing to discharge pollutants. SpaceX has neither applied for nor received a TPDES permit for discharges of industrial wastewater from the deluge system at its Boca Chica Launch Site in Cameron County, Texas.

These unpermitted discharges are into and impact waters of the United States. There are no fewer than 25.5 acres of delineated jurisdictional wetlands around SpaceX’s Vertical Launch Area (“VLA”) alone.¹ These “mudflats, estuarine, and non-tidal wetlands within the project area are considered Aquatic Resources of National Importance pursuant to CWA Section 404q.”² Additionally, the bay just north of the VLA has been officially designated as part of the South Bay Coastal Preserve by the Texas Parks and Wildlife Department due to its “unique ecosystem,” which

¹ “Final Programmatic Environmental Assessment for the SpaceX Starship/Super Heavy Launch Vehicle Program at the SpaceX Boca Chica Launch Site in Cameron County, Texas” at 108. Federal Aviation Administration. June 2022. Available at: <https://www.faa.gov/stakeholderengagement/spacexstarship/assessment-spacex-starshipsuper-heavy-launch-vehicle-program>.

² *Id.* at 109; *see also* Exhibits 1 and 2 below.

supports a variety of rare species of flora and fauna, as well as recreational use by boaters and anglers.³

SpaceX conducted its first test launch of the Starship/SuperHeavy rocket in April 2023. It had no flame deflector or water deluge system in place at the time, and a disastrous explosion of the concrete launch pad ensued.⁴ The resulting storm of fire, dust, and debris reached more than 385 acres of land in the area and caused extensive damage to sensitive ecosystems.⁵

Thereafter, SpaceX implemented a deluge system before its second Starship test launch in November 2023. Publicly available documents indicate that SpaceX's plans are to activate the deluge system during every engine static fire and vehicle launch, and that every time the system is activated, up to 358,000 gallons of water are to be "pushed from ground tanks into the steel plates and released through holes in the plating."⁶ Elon Musk, the founder of SpaceX, described the system as "[b]asically, a massive, super strong steel shower head pointing up."⁷ SpaceX has not disclosed to the public how much water is actually being released during each activation of the deluge system, but the FAA estimated that approximately 72,000 gallons would be used for each static fire event, approximately 132,000 gallons for each launch event, and that 358,000 gallons in the deluge system tanks plus 3,000 gallons of detonation suppression water would be the maximum used during any individual operation.⁸

The SpaceX deluge system is a point source under the definition of the Clean Water Act because it is a "discernible, confined and discrete conveyance ... from which pollutants or wastes are ... discharged into or adjacent to any water in the state." 33 U.S.C. § 1362(14); *see also* 30 Tex. Admin. Code § 307.3(49). The deluge water may travel up to 0.6 miles from the launch pad, unquestionably reaching waters of the United States. As the FAA has noted, "[o]peration of the deluge system would have physical consequences within an impact area defined by the distance that applied water disperses across the landscape. The maximum expected distance that water would disperse during deluge system operation is 0.6-mile, based on the expected distance of the vapor cloud and subsequent condensation."⁹ This 0.6-mile radius of impact includes all delineated jurisdictional wetlands around the VLA and the South Bay, which are waters of the United States.

Photos taken after the March 2024 test launch confirm the pooling of such water in the areas adjacent to the VLA. This uncontained discharged industrial wastewater is expected to

³ "Texas GEMS—South Bay Coastal Preserve." Texas Parks & Wildlife Department. Available at: <https://tpwd.texas.gov/landwater/water/conservation/txgems/southbay/index.phtml>.

⁴ Davila, Gaige. "SpaceX is grounded after rocket explosion caused extensive environmental damage." *Texas Public Radio*. April 27, 2023. Available at: <https://www.tpr.org/environment/2023-04-27/photos-spacex-is-grounded-after-rocket-explosion-caused-extensive-environmental-damage>.

⁵ *Id.*

⁶ "Addendum to the October 2021 Biological Assessment for the SpaceX Starship- Super Heavy Launch Vehicle Program at the SpaceX Boca Chica Launch Site in Cameron County, Texas Addressing Operation of a Deluge System" ("Addendum") at 1. Federal Aviation Administration. October 2023. Available at: <https://www.faa.gov/media/72826>.

⁷ Chang, Kenneth. "SpaceX Shifts the 2nd Launch of Its Starship Rocket to Saturday." *The New York Times*. Nov. 18, 2023. Available at: <https://www.nytimes.com/2023/11/16/science/spacex-starship-launch-elon-musk.html>.

⁸ "Addendum" at 3.

⁹ *Id.* at 8.

contain some level of ablated metals and has previously been found by the FAA to contain hexavalent chromium, an EPA-regulated toxic substance.¹⁰

TCEQ is aware of these unpermitted discharges and has failed to act. Per communication between Save RGV members and Cari-Michel La Caille (Director of TCEQ's Office of Water) from August 3, 2023, TCEQ recognized that "[d]eluge water from rocket launches would be a type of industrial wastewater," but to date, TCEQ has not, to Save RGV's knowledge, commenced any action to require SpaceX to obtain a TPDES permit.¹¹ See 33 U.S.C. § 1365(b)(1)(B).

SpaceX has unlawfully discharged industrial wastewater without a TPDES permit at least ten times in the past year. It used the deluge system during a launch that occurred on November 18, 2023 at approximately 7:02 am CST.¹² It again used the deluge system during a launch that occurred on March 14, 2024 at approximately 8:25 am CDT.¹³ Known static fire tests in the past year have occurred on June 26, 2023, August 6, 2023, August 25, 2023, October 20, 2023, December 20, 2023, December 29, 2023, April 5, 2024, and May 8, 2024.¹⁴ Each of these discharges amounts to a separate violation of the Clean Water Act. Save RGV anticipates that additional violations may be discovered through the course of discovery if the lawsuit becomes necessary.

SpaceX has announced its plan to perform another test launch imminently, in June 2024.¹⁵ It will again activate the deluge system and illegally discharge pollutants into waters of the United States. The upcoming launch, as well as every future planned launch—which may be as many as ten each year—as well as each static fire test (estimated two tests per launch),¹⁶ will each constitute a separate violation of the Clean Water Act.

III. Intended Citizen Suit Enforcement

Save RGV intends to seek injunctive relief to prevent imminent further violations of the CWA under 33 U.S.C. §§ 1365(a), (d). Save RGV also will seek declaratory relief and all other relief permitted by law to remedy SpaceX's past CWA violations. Save RGV will seek civil penalties pursuant to CWA Section 309(d), 33 U.S.C. § 1319(d), and 40 C.F.R. § 19.4 (2023) for all violations occurring during the period commencing five (5) years prior to the date of this notice letter. Violations encompassed within this letter are subject to a penalty of up to \$66,712 per

¹⁰ "Appendix B. Reinitiation #1 of Interagency Consultation." at 7. Federal Aviation Administration. November 2023. Available at <https://www.faa.gov/media/72791>.

¹¹ Email correspondence from Aug. 3, 2023.

¹² See Exhibit 3 for a still image from SpaceX video footage from the November 2023 launch; full video available at <https://www.spacex.com/launches/>.

¹³ See Exhibit 4 for a still image from SpaceX video footage from the March 2024 launch; full video available at <https://www.spacex.com/launches/>.

¹⁴ Various sources: [June 26, 2023](#); [Aug. 6, 2023](#); [Aug. 25, 2023](#); [Oct. 20, 2023](#); [Dec. 20, 2023](#); [Dec. 29, 2023](#); [April 5, 2024](#); [May 8, 2024](#).

¹⁵ Wall, Mike. "SpaceX targeting June 5 for 4th test flight of Starship megarocket." *Space.com*. May 24, 2024. Available at: <https://www.space.com/spacex-targeting-june-5-starship-fourth-test-flight>.

¹⁶ "Addendum" at 3; Guzman, Andrea. "SpaceX wants to launch Starship nine times this year." *Chron*. Feb. 24, 2024. Available at: <https://www.chron.com/culture/article/starship-launches-2024-spacex-18684230.php>.

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violation. Lastly, Save RGV also will seek to recover its litigation costs through CWA Section 505(d), 33 U.S.C. § 1365(d), including reasonable attorney and expert witness fees.

IV. Conclusion

Save RGV, by and through its attorneys, Perales, Allmon & Ice, P.C., provides this Notice of Intent to Sue pursuant to 33 U.S.C. § 1365(b). The full name, address, and telephone number of the person providing this notice is:

Save RGV
613 W. St. Charles St.
Brownsville, TX 78520
(956) 571-0545

Please direct all communication to Save RGV's legal counsel, who is giving notice on its behalf.

/s/ Marisa Perales
Marisa Perales
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Exhibit 1.

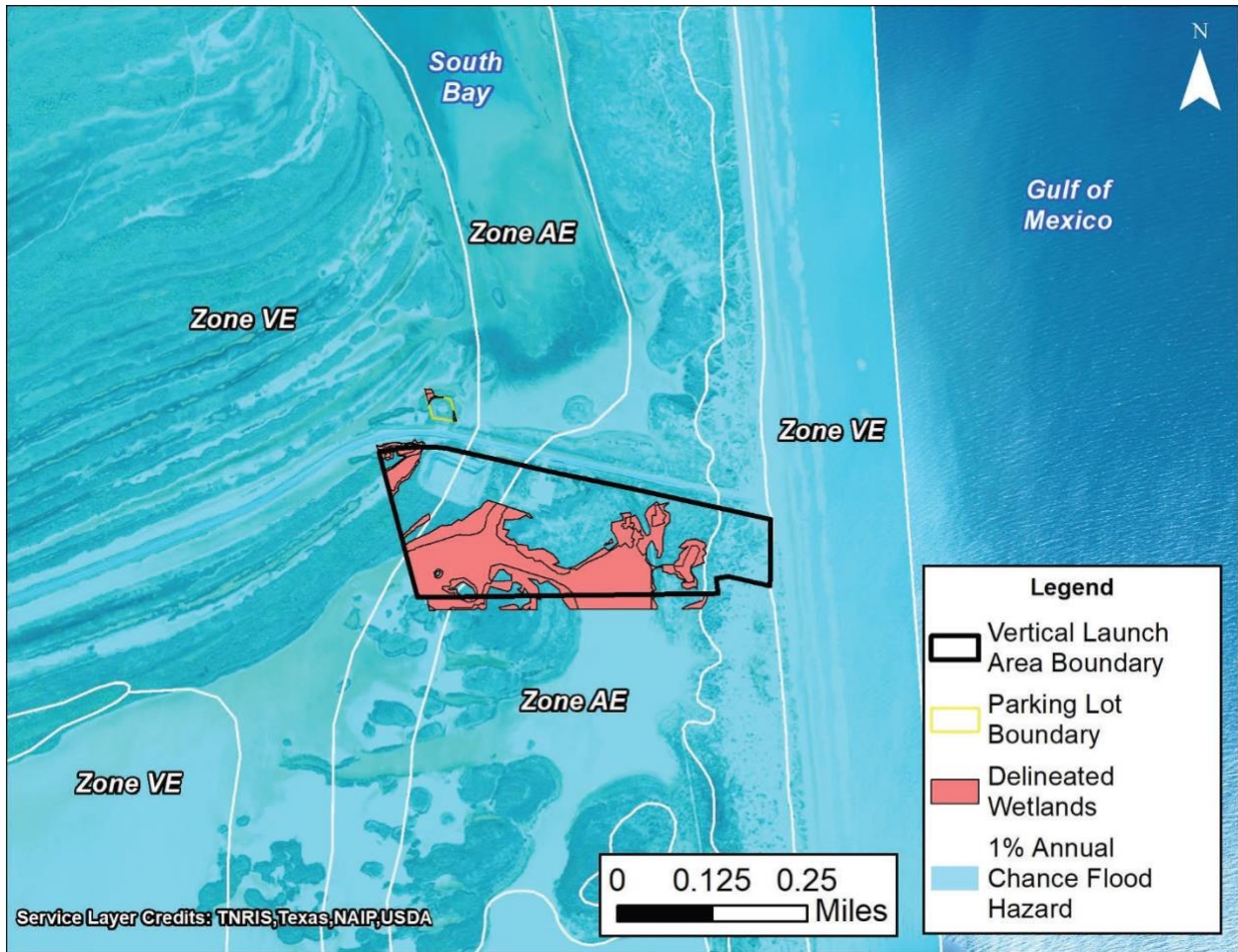


Exhibit 2.

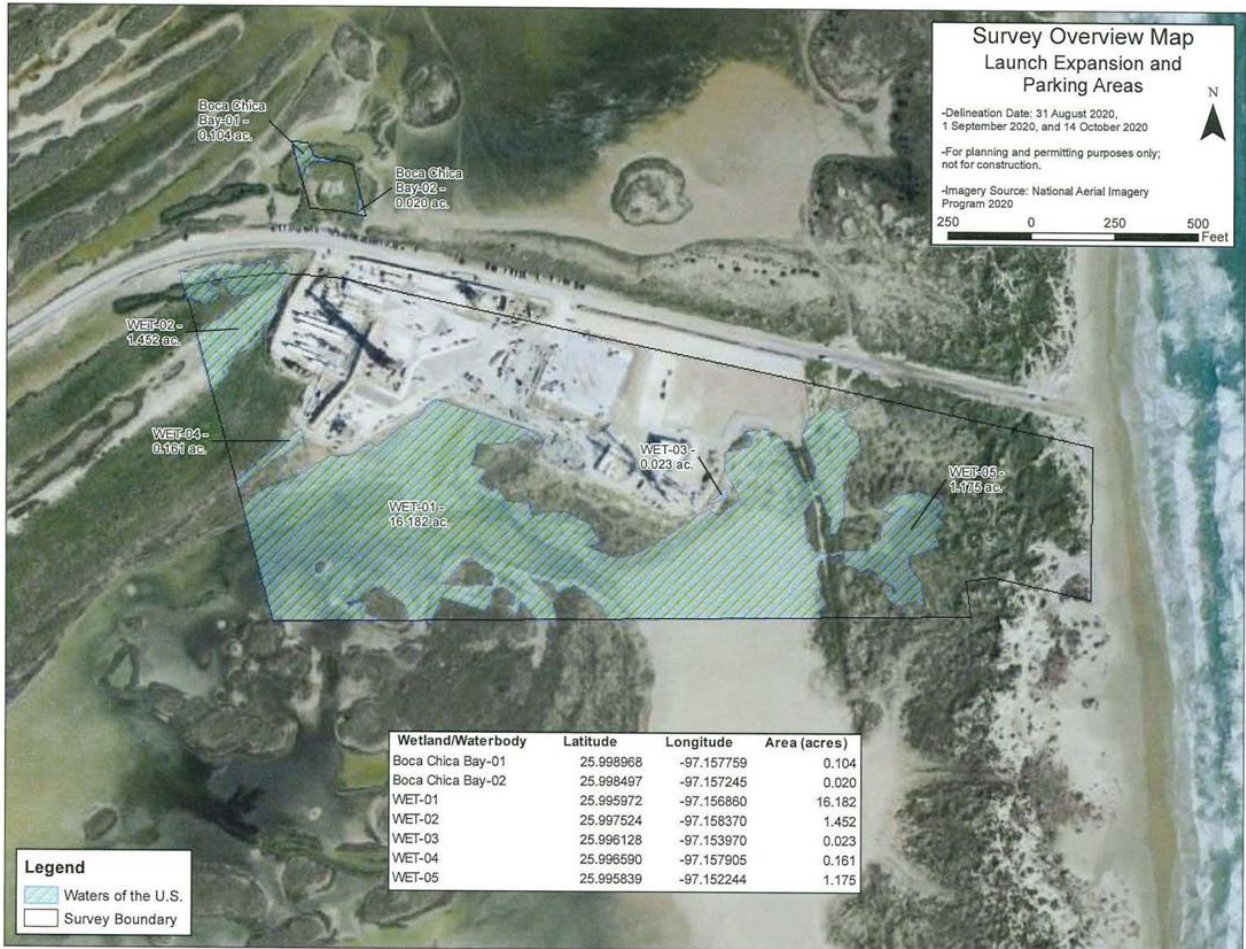


Exhibit 3.

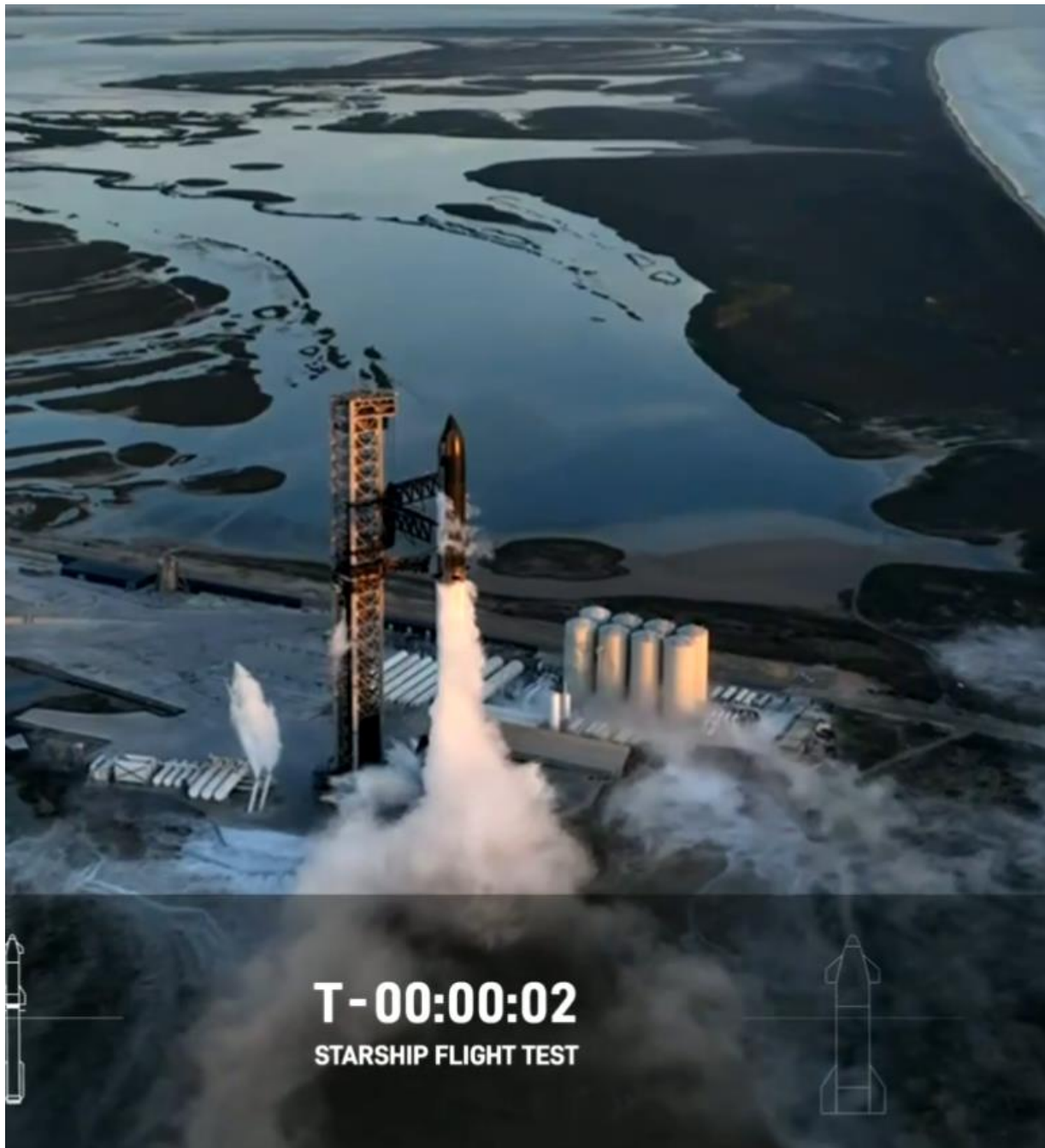


Exhibit 4.

