



**Big Thicket National Preserve
Hardin County, Texas
Little Pine Island – Pine Island Bayou Corridor Unit**

**FINDING OF NO SIGNIFICANT IMPACT
Lawco Trigger #1 Cross-boundary Exemption
September 2023**

Recommended:

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INTRODUCTION

In compliance with the National Environmental Policy Act of 1969 (NEPA) and National Park Service (NPS) regulations for nonfederal oil and gas rights (36 CFR 9B)¹, NPS began preparing the “Lawco Trigger #1 Cross-boundary Exemption” Environmental Assessment (EA) in August 2022, which was released for public comment on June 24, 2023. The EA examined alternative actions and environmental impacts associated with the proposed project that would allow Texian Operating Company, LLC (Texian), on behalf of Lawco Resources LLC and Lawco Osage Operating, LLC (Lawco), to directionally drill the Trigger No. 1 well (Trigger #1) to explore a valid non-federal mineral lease beneath Big Thicket National Preserve (BITH), Little Pine Island - Pine Island Bayou Corridor Unit (Corridor Unit) in Hardin County, Texas.

Texian, on behalf of Lawco proposes to directionally drill the Trigger No. 1 (Trigger #1) well to explore a valid existing non-federal mineral lease. The proposed Lawco Trigger #1 would be located on private property approximately 1,855 feet north-northwest of the BITH boundary at the nearest point. The Trigger #1 would be collocated on the existing Gemini #1 well pad, which was constructed in late 2003 with drilling commencing on December 14, 2003 (TX-RRC, 2022). The Gemini #1 continues to produce natural gas, although in diminishing amounts. Lawco deliberately chose to reoccupy the Gemini #1 well location as a preferable option to constructing a new well pad at a different location. By reusing the Gemini #1 well pad for the Trigger#1 well pad, Lawco reduces the potential environmental impacts of the new well by minimizing the footprint of new pad construction and associated infrastructure development.

The statements and conclusions reached in this Finding of No Significant Impact (FONSI) are based on documentation and analysis provided in the EA and associated decision file. To the extent necessary, relevant sections of the EA are incorporated in this document. The EA is available on the NPS Planning, Environment, and Public Comment (PEPC) page at: <https://parkplanning.nps.gov/documentsList.cfm?parkID=32&projectID=111929>

SELECTED ALTERNATIVE AND RATIONALE FOR DECISION

SELECTED ACTION

Based on the analysis presented in the EA, the NPS selected Alternative B, the proposed action and NPS preferred alternative. The selected action best meets the purpose and need for action without causing significant impacts to park resources.

Trigger #1 would be located approximately 500 feet east of U.S. Highway 69/96/287 (U.S. Highway 69) at the nearest point, which has four lanes of 70-mile-per-hour traffic, and two slower-speed frontage roads with two lanes each, totaling eight lanes. Trigger #1 would be ~100 feet east of the Burlington Northern Santa Fe Railroad (BNSF) mainline railroad track with a 100-foot-wide right-of-way (ROW), which is frequently traveled both day and night by diesel engine freight trains with up to 100 cars. Access to the well pad would be from Cook’s Lake Road, which is a public road, and then onto a private, gated, and locked road leading north to the well pad. The well pad is not visible from any public roadway because it is entirely encircled by a thick stand of 30- to 60-foot-tall pine and hardwood trees with a dense understory. The surface location is within an unincorporated area north of the city of Beaumont, Texas. West of the

¹ More information and 36 CFR link at <https://www.nps.gov/subjects/energyminerals/oil-and-gas.htm>

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Trigger #1 location across US Highway 69 is the community of Rose Hill Acres with a population of approximately 440 residents.

For EA analysis, four (4) project phases were identified that would potentially have different environmental consequences due to the nature of the work involved in each. They are: (1) construction, (2) drilling, (3) production, and (4) plugging and final abandonment. They are more fully described in the EA and briefly described below.

Construction. The existing rock-surfaced Gemini #1 well pad would be expanded to the west by 50 feet, and to the north by 170 feet. Clearing would require the removal of approximately 20 small diameter and unmerchantable pine and hardwood trees and some woody brush species and grasses. The expanded well pad would add approximately 0.9 acres to the existing 1.25 acre well pad for a total combined Trigger #1 well pad of 2.15 acres, or approximately 250 feet by 375 feet. The expanded pad would be stabilized with a 6-to-8-inch layer of road-base aggregate. Best Management Practices would be implemented during all project phases. The construction phase would likely include 2 dump trucks, 1 bulldozer, 1 backhoe with front-end loader, require 10 days to complete and involve 4 personnel driving to and from the worksite daily.

Drilling. Drilling rig and facilities set-up would take approximately 5 days, then 30 days to drill and 5 days for removal, for a total of approximately 40 days. Drilling would use a closed mud system with no open pits for mud, water, or gas flare. Hydraulic fracturing would not be conducted. Power generation from 3 CAT-3512 diesel generators would be contained in insulated, sound-attenuating “houses” and would include 2 FD-1600 mud pumps, 2 mud tanks, 1 mud suction tank, 1 mud shaker tank, 1 water tank, and 1 fuel tank. Rig height would be approximately 142 feet from the ground and lighted during nighttime operations for crew safety. In and out rig mobilization would be accomplished with 3 to 4 diesel semi-trucks. The wellbore would be cased to protect subsurface water in accordance with all state laws and regulations. Six (6) personnel would be working the rig at any given time, operating 24 hours per day on 10-hour shifts.

Production. All existing on-site Gemini #1 facilities would be used to process and transport natural gas. All liquid hydrocarbons or water would be stored in the 4 existing on-site storage tanks. Additional infrastructure would include wellhead surface piping to various existing production, processing, and connecting points. No new underground or above-ground piping or pipelines are anticipated. One future directional well beneath BITH would be similarly drilled from the Trigger/Gemini surface location utilizing all existing infrastructure. Trigger #1, if successful, is expected to produce natural gas for the next 20 to 30 years. The production phase would require periodic supervision and maintenance at an estimated average of 1 person and 1 vehicle per week over the life of the well, which is estimated to be between 1,040 and 1,560 total onsite visits.

Plugging and Final Abandonment. Trigger #1 will be plugged and abandoned according to all state laws and regulations when production ceases, or is no longer economically viable, and the surface location will be reclaimed to its original condition and revegetated with native species. If the operator requires access to the wellhead after plugging, the NEPA process will be re-initiated, and a new EA and 9B exemption required.

The statements and conclusions reached in this FONSI are based on documentation and analysis provided in the EA, and associated decision file, to grant Lawco permission to directionally drill and produce the Trigger #1 well from a location 1,854 feet outside the Corridor Unit.

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Additionally, upon receipt of any required and requested supplemental information by NPS, and before implementation could occur, NPS would review and determine whether the analysis provided in the EA is valid for the one possible additional directional well, to determine if it qualifies for the § 9.72(b)(1)² exemption.

For more detailed project information on all four (4) phases of the project, please see the “Cross Boundary Exemption Package”, which includes the Right to Operate document with the following: two (2) survey plats showing the gas lease with BITH boundaries and surface location; the drilling and casing plans; Spill Prevention, Control and Countermeasures (SPCC) Plan; and the emergency preparedness plan. The documents in this package can be found on the project page in the NPS Planning, Environment & Public Comment (PEPC) System, [PEPC 111929 \(nps.gov\)](https://www.nps.gov/111929) and are referenced as articles I through VI.

Other issues considered but eliminated from detailed analysis are described in Appendix A of the EA.

RATIONALE FOR DECISION

The NPS has selected Alternative B, the Lawco Trigger #1 Proposed Action, because it best meets the project purpose and need without causing significant impacts to park resources and will approve a cross-boundary exemption for the Trigger #1 well, allowing Lawco to drill beneath the Corridor Unit to access its existing, valid, non-federal mineral lease within the BITH boundary. Operations will be subject to the general terms and conditions in 36 CFR Part 9 Subpart B § 9.120- § 9.122, the prohibitions and penalties in § 9.180- § 9.182, and the requirements in § 9.73.

The selected action meets the purpose of operating Trigger #1 on an existing well pad, access road, and surface and subsurface infrastructure constructed for the Gemini #1 well, which has been producing natural gas since 2004 and is also operated by Lawco. The Trigger #1 well would be 0.35 miles (1,854 feet) from the Corridor Unit boundary at the nearest point. If the Trigger #1 well is successful, one additional directional well from the same surface location, and using the same infrastructure but with a different bottomhole target beneath BITH, would be considered by Lawco.

No alternative locations or strategies were proposed because drilling from the existing well pad located outside of the park boundary is the best possible location to minimize environmental impacts in BITH and the surrounding project area. The NPS agrees that locating surface operations outside of the park better protects park resources, as most impacts from surface operations are avoided or minimized. For this reason, the 36 CFR Part 9(b) regulations include an exemption from the operations permit requirement for mineral owners and operators to locate operations outside of the park and access their private mineral rights through directional drilling techniques.

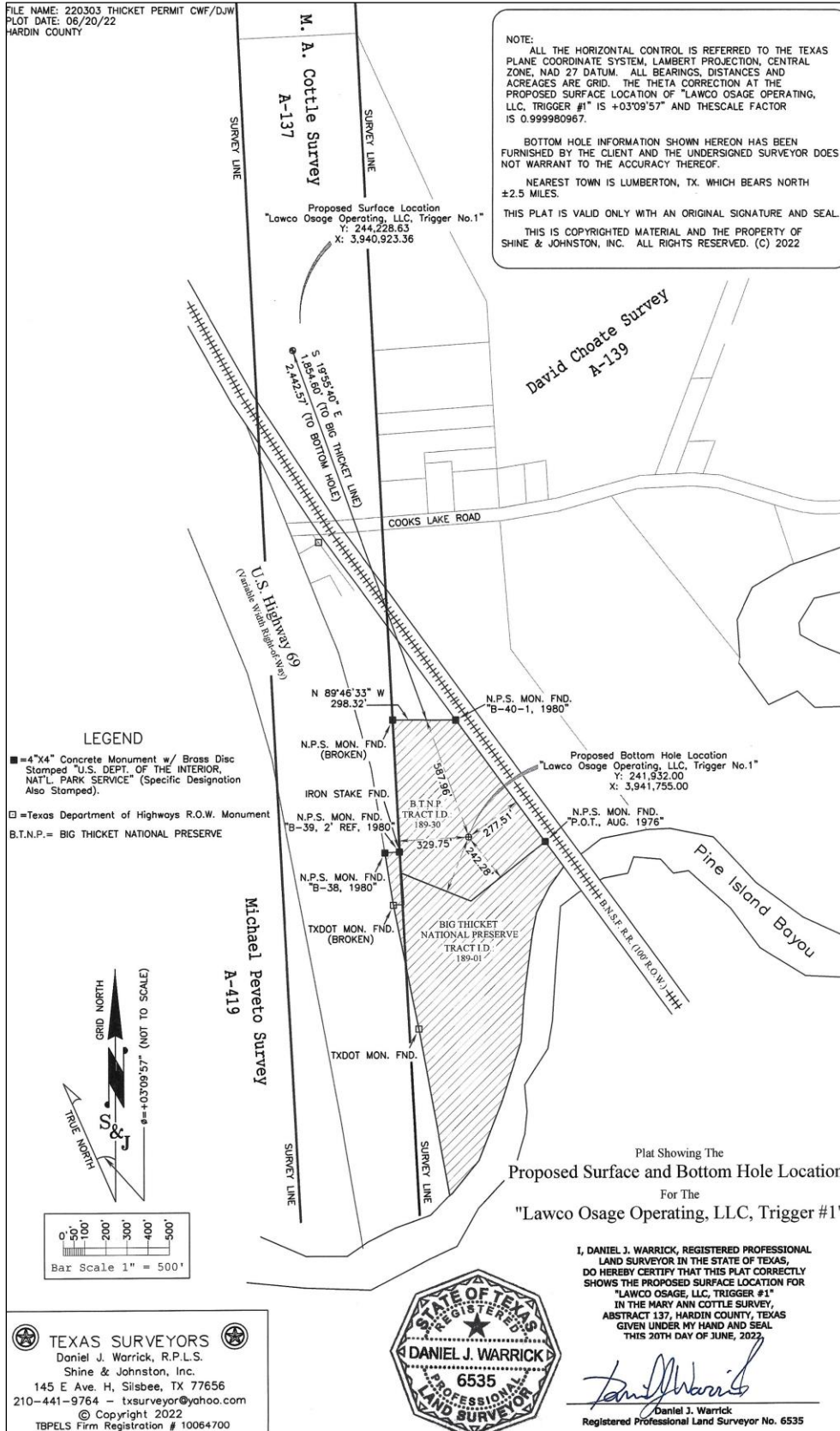
² NPS non-federal oil and gas CFR at: <https://www.federalregister.gov/documents/2016/11/04/2016-26489/general-provisions-and-non-federal-oil-and-gas-rights>

Map 1. Lawco Trigger #1 Vicinity Over Aerial Imagery



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Map 2. Lawco Trigger #1 Location Survey Plat



MITIGATION MEASURES

The NPS strongly emphasizes avoiding, minimizing, and mitigating potentially adverse environmental impacts. The NPS will require multiple mitigation measures and best management practices to protect environmental and cultural resources potentially affected by the project. Therefore, to reduce impacts on the environment, Lawco would incorporate the mitigation measures listed in Appendix A of this document.

The authority for mitigation for this project comes from laws and policies, including:

- NPS Organic Act (16 USC § 1)
- The Redwood Act (HR 3813 (95th))
- 1978 National Parks and Recreation Act
- Endangered Species Act, as amended (16 USC § 1531 et seq.)
- Director’s Order 41: *Wilderness Stewardship* (2013)
- NPS *Management Policies 2006* (chapters 4, 5, and 6)

AGENCIES AND PERSONS CONSULTED

A 15-day public scoping period was conducted via the NPS PEPC system from 09/15/2022-09/30/2022. No scoping comments were received. Additionally, the EA was released on the NPS PEPC webpage for a 15-day public review period from June 24, 2023, to July 8, 2023. No substantive comments were received.

The park initiated Section 106 consultation when the EA was released for public comment. Letters were sent to the 10 affiliated tribes listed below, as well as to the State Historic Preservation Office (SHPO). After 30 days, the park received no substantive comments from the tribes and the park received concurrence from the SHPO of “no historic properties affected”.

- Absentee-Shawnee Tribe of Indians of Oklahoma
- Alabama-Coushatta Tribe of Texas
- Alabama-Quassarte Tribal Town
- Caddo Nation of Oklahoma
- Coushatta Tribe of Louisiana
- Kialegee Tribal Town
- Poarch Band of Creek Indians
- The Muscogee (Creek) Nation
- Thlopthloco Tribal Town
- Tunica-Biloxi Tribe

POTENTIALLY AFFECTED ENVIRONMENT

Under the selected alternative (Alternative B or the Proposed Action), the project area is defined as the Trigger #1 well pad located approximately 500 feet east of U.S. Highway 69/96/287 (US Highway 69) at the nearest point, which has four lanes of 70 mile per hour traffic, and two slower-speed frontage roads with two lanes each, totaling eight lanes. The Trigger #1 would be

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approximately 100 feet east of the BNSF mainline railroad track with a 100-foot-wide ROW, which is frequently traveled both day and night, by diesel engine freight trains with up to 100 cars. Access to the well pad would be from the public road named Cook's Lake Road and then onto a private, gated, and locked road leading north to the well pad. The well pad is not visible from any public roadway because it is entirely encircled by a thick stand of 30- to 60-foot-tall pine and hardwood trees with a dense understory. The surface location is within an unincorporated area north of the city of Beaumont, Texas. West of the Trigger #1 location across US Highway 69 is the community of Rose Hill Acres with a population of about 440.

The Clean Air Act (CAA) (42 U.S.C. 7401 et seq.), requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) (40 CFR, part 50) for six air pollutants (also known as "criteria air pollutants"). The criteria pollutants include Sulfur Dioxide (SO₂), Lead (Pb), Nitrogen Dioxide (NO₂), Ozone (O₃), Particle Pollution (PM-2.5 and PM-10), and Carbon Monoxide (CO) (EPA, 2022c).

The Texas Commission on Environmental Quality (TCEQ) has EPA-approved plans to implement CAA requirements within the state of Texas and ensure compliance with the NAAQS. TCEQ has developed a Texas State Implementation Plan (SIP) as the state's comprehensive plan to ensure clean air and attainment of the federal air quality standards.

Hardin County is in the Beaumont-Port Arthur Attainment Area (BPA) which includes all of Hardin, Jefferson and Orange Counties, Texas. The current attainment status for all 6 criteria pollutants in the BPA is "Unclassifiable / Attainment" (for the current NAAQS standards) which is defined by the EPA as "meeting the standard or expected to be meeting the standard despite a lack of monitoring data" (TCEQ, 2022b).

The BPA area was previously designated as moderate nonattainment for the 1997 8-hour Ozone Standard and serious nonattainment for the 1979 1-hour standard. Each of these standards was revoked by the EPA and replaced with the current (2015) 8-hour standard. In 2010, the BPA was redesignated as attainment (Maintenance) under the 1997 8-hour ozone standard. Most recently, on September 2, 2020, the EPA published final approval of the second 10-year maintenance plan for the 1997 8-hour ozone standard (EPA, 2022h). In 2020, TCEQ also withdrew their redesignation request for the revoked 1979 1-hour standard.

States and the EPA are required to monitor criteria air pollutants to demonstrate compliance with the NAAQS. The 8-hour ozone standard is monitored in the BPA at 6 locations meeting the EPA's quality assurance criteria required for use in regulatory purposes. The highest 3-year average of the annual fourth-highest daily maximum 8-hour average (H-4-H) from 2019 through 2021 from the 6 locations is 66 parts per billion (ppb) for the SETRPC 43 Jefferson County Airport monitor (EPA Site Number 482450102). The EPA standard states that a community meets the 8-hour standard when the 3-year average of the annual fourth-highest daily maximum 8-hour ozone concentration (the standard used by TCEQ) measured at each monitoring site is less than 70 ppb. Therefore, the entire BPA area complies with the current NAAQS.

Air quality would continue to be affected by industrial sources including pulp mills, oil refineries, and petro-chemical manufacturing plants, public utilities, and vehicular and train engine emissions.

THE DEGREE OF EFFECTS OF THE ACTION

The following topics have been considered in evaluating the degree of the effects (40 CFR 1501.3(b)(2)) for the selected action.

Beneficial, Adverse, and Short and Long-term Effects of the Proposed Action

As described in the EA, only AQ/GHG were carried forth for analysis and described in detail in the EA as well as summarized here. Activities associated with oil and gas development emit air pollutants from construction, well drilling and production operations. Pollutants emitted from oil and gas operations include nitrogen oxides (NO_x), Volatile Organic Compounds (VOCs), particulate matter (PM_{2.5} and PM₁₀), sulfur dioxide (SO₂), and greenhouse gases (GHGs) (note: NO_x and VOCs emissions are precursors to atmospheric ozone formation). These pollutants are emitted from combustion sources used in the construction and drilling phases, including engines/generators used to power the drill rig and tailpipe emissions from construction equipment. Construction activities can also result in particulate matter dust emissions. VOC and GHG emissions are primarily associated with the existing onsite tanks used to store produced liquids during the production phase (tanks are routed to an onsite flare). Generally, emissions from an individual well or well pad are insignificant and below major source permitting thresholds, as is the case for the Gemini well pad. Estimated emissions associated with the proposed action are described below and reported in the following sections.

For all four phases of the project (construction, drilling, production, and plugging/reclamation) the adverse effects in and outside the Corridor Unit will be temporary and short-term for approximately 50 days when there would be an increase in noise, light, and GHG emissions. Over the longer-term production phase, estimated to be 20 to 30 years, GHG emissions would decrease to levels that would be near or below ambient, given the proximity of the project area to U.S. Highway 69, BNSF Railroad, and urban development; however, the long term cumulative GHG emissions would be greater than the drilling phase. Estimated emission levels are well below de minimis thresholds for ozone conformity analyses (50 TPY in serious nonattainment areas) and the GHG reporting thresholds under subpart C (25,000 metric tons CO_e). Thus, the emissions from the project would be inconsequential at a local, regional, and global scale and would not measurably detract from achieving relevant climate action goals and commitments, including Federal goals, international agreements, state, or regional goals. However, climate change is the result of the increased global accumulation of GHGs, climate effects analysis is inherently cumulative in nature, and as the project will result in GHG emissions there could a very small contribution to climate change.

The analysis in the EA determined that the project impacts on the AQ/GHG-affected environment and the environmental consequences "...would not substantially change the overall cumulative air quality in the region...". This conclusion was based on the analysis under Alternative B of the direct, indirect, and cumulative impacts for all four phases of the project as previously described. Refer to Section 3.0 in the EA for the detailed analysis of AQ/GHG under both Alternatives A and B

Degree to Which the Selected Alternative Affects Public Health and Safety

There will be no significant impacts on public health, public safety, or unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. With regards to the issues

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eliminated from further analysis and based on the detailed analysis of AQ/GHG, the EA determined that the degree to which the selected alternative affects the public health and safety in and outside the Corridor Unit would not substantially change the overall cumulative air quality in the region.

Effects That Would Violate Federal, State, Tribal, or Local Law Protecting the Environment

The selected alternative does not threaten or violate applicable federal, state, or local environmental laws or requirements imposed for the protection of the environment.

The selected alternative will not violate any provision or requirement identified under legislation addressing the Big Thicket National Preserve, the Little Pine Island - Pine Island Bayou Corridor Unit, the National Park Service Organic Act, or any other subsequent legislation. Further details can be found in the non-impairment determination included as Attachment A.

Regarding compliance with section 7 of the Endangered Species Act, there are no actions in the selected action that would affect federally listed species or critical habitat. Similarly, the EA does not carry forward threatened and endangered species for further analysis; that rationale is described in detail in Appendix C of the EA.

CONCLUSION

Considering the criteria for significance (40 CFR 1501.3(b)), both regarding the affected environment and the degree of effects described in the EA, the NPS has determined that the selected alternative does not constitute a major federal action having a significant effect on the human environment. Additionally, the selected action does not constitute an action that normally requires the preparation of an EIS (see Section 1.5.E of the NPS NEPA Handbook). Therefore, an EIS will not be required.

APPENDIX A: MITIGATION MEASURES

NO.	MITIGATION MEASURE	RESOURCES PROTECTED	AUTHORITY
GENERAL			
1.	Prepare and comply with a Spill Prevention Control and Countermeasure Plan (SPCC).	All natural resources and human health and safety	EPA requirement per 40CFR, Chapter 1, Subchapter D, Part 12, Oil Pollution Prevention.
2.	Site well, flowlines and production facilities outside the preserve boundary.	All resources and visitor use and experience inside the Unit.	Necessary to qualify for NPS cross-boundary exemption.
3.	Use the existing Gemini #1 well pad, infrastructure and production facilities	All resources outside the Unit.	Voluntary
4.	Cover all pits, ponds, or other containment areas and unprotected oil field equipment containing hydrocarbon liquids with screen, netting or other appropriate materials to prevent birds and other wildlife from being attracted to and entrapped in collected liquids.	Birds and all wildlife	Required for any open top storage tanks, skimming pits and collecting pits. RRC Statewide Rule 3.22 Protection of Birds
CONSTRUCTION			
5.	1) Minimize the footprint of the disturbed area, 2) Construct a berm around the approximately 3.1-acre well pads, 3) Plan the site location to choose low-slope sites away from waterways, 4) Manage slopes to decrease steepness, 5) Maintain the maximum amount of vegetative cover as possible, 6) Practice good housekeeping including proper material storage, and 7) Use erosion control measures, including the use of mulching, seeding, silt fences, and/or hay bales.	All natural resources and human health and safety	Voluntary
DRILLING			
6.	Directionally drill wells from outside the Preserve so that cased wellbores will isolate all useable groundwater and also contain and isolate produced fluids.	Groundwater	Necessary to qualify for NPS cross-boundary exemption.
7.	Use a closed mud system and onsite water tanks so that no open pits are required, including a flare pit.	All natural resources and human health and safety	Voluntary

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NO.	MITIGATION MEASURE	RESOURCES PROTECTED	AUTHORITY
8.	Construct perimeter catchment ditch and washout/emergency pit and line with impervious plastic that will be carefully removed at project end so that no captured residue or fluids escape and legally disposed of it.	All natural resources and human health and safety	Voluntary
9.	Set surface casing according to RRC requirements	All natural resources and human health and safety	Required by RRC Statewide Rule 13(b)(2)
10.	Legally and responsibly dispose of mud and well cuttings offsite or downhole	All natural resources and human health and safety	Required by RRC Statewide Rule 8
PRODUCTION			
11.	Construct an earthen rock covered dike around the tank battery with the capacity of the largest tank plus precipitation from a 25-yr 24-hr storm event	All natural resources and human health and safety	40CFR Chapter 1, Subchapter D, 112.9(c)(2)
12.	Notify the Big Thicket Superintendent and regulatory authorities within 24 hrs in the event of a release or spill of hydrocarbons, condensate, crude oil or any contaminating substance exceeding 5 barrels.	All natural resources and human health and safety	Required by RRC Statewide Rules 20, 91(e), 91(e)(3), 91(b). Some spills may require official reporting to TCEQ, EPA and RRC
WELL PLUGGING			
13.	The well will be plugged according to RRC regulations to isolate and preserve each useable water strata	All natural resources and human health and safety	Required by RRC Statewide Rule 13 and 14.
FINAL ABANDONMENT			
14.	Backfill all excavated pits and catchments with native soil	All natural resources and human health and safety	Required by RRC Statewide Rule 8
15.	The well pad and any disturbed area will be restored to the original contours to the extent possible and as agreed with the surface owner	All natural resources and human health and safety	Required by RRC Statewide Rule 14(d)(12)
16.	The well pad will be revegetated with native grasses, forbs or plants or as agreed to with the surface landowner	All natural resources and human health and safety	Voluntary

APPENDIX B: NON-IMPAIRMENT DETERMINATION

By enacting the NPS Organic Act of 1916 (Organic Act), Congress directed the U.S. Department of the Interior and the NPS to manage National Park System units “to conserve the scenery, natural and historic objects, and wildlife in the System units and to provide for the enjoyment of the scenery, natural and historic objects, and wildlife in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (54 USC 100101). NPS Management Policies 2006, Section 1.4.4, explains the prohibition on impairment of park resources and values:

“While Congress has given the Service the management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the Organic Act, establishes the primary responsibility of the National Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.”

An action constitutes impairment when its impacts “would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values” (NPS 2006, Section 1.4.5). To determine impairment, the NPS must evaluate the resources and values that will be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts.

An impact on any park resource or value may, but does not necessarily, constitute impairment, but an impact would be more likely to constitute an impairment when it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the park’s establishing legislation;
- key to the park’s natural and cultural integrity or to opportunities for enjoyment of the park; or
- identified in the park’s general management plan or other relevant NPS planning documents as being of significance (NPS 2006, Section 1.4.5).

Established in 1974, Big Thicket National Preserve (BITH) protects a biologically significant portion of the Piney Woods of southeast Texas including nine different ecosystems, from longleaf pine forests to cypress-lined bayous.

The resource that was carried forward for detailed analysis in the EA, Air Quality and Greenhouse Gas (AQ/GHG), is considered necessary to fulfill specific purposes identified in the establishing legislation of the park, identified for management in relevant NPS planning documents, or key to the natural or cultural integrity of the park. Accordingly, a non-impairment determination is made for AQ/GHG.

This non-impairment determination has been prepared for the selected alternative, as mentioned in the *Selected Alternative and Rationale for Decision* section of this document.

Air Quality and Greenhouse Gas

The NPS evaluates air quality conditions and trends in parks across the country, including BITH.³ The NPS rates overall air quality in BITH to be in fair condition with improving trends. The indicators that the NPS uses to evaluate air quality conditions in parks include visibility (haze index), ozone (impact levels considered for both sensitive vegetation and human health), and risk to park ecosystems from pollutant deposition (includes nitrogen, sulfur, and mercury deposition). Park resources that are sensitive to air pollution (e.g., plants, animals, water resources, visibility) are also referred to as Air Quality Related Values (AQRVs). The Clean Air Act (CAA) and the NPS Organic Act give the NPS a responsibility to protect AQRVs in units of the national park system, which includes evaluating status and trends. The NPS indicators for air quality are designed to track AQRV conditions and trends.

The Trigger #1 project area is in Hardin County, Texas, north of the City of Beaumont in the Beaumont-Port Arthur (BPA) National Ambient Air Quality Standards (NAAQS)⁴ area located east-northeast of Houston. Emissions contributing to BITH air quality are generally transported from beyond park boundaries in the surrounding region. Emissions of volatile organic compounds (VOCs) and nitrogen oxides (NOx) are precursor emissions to ozone formation, a pollutant that is harmful to sensitive vegetation and human health at elevated concentrations. Sulfur dioxides (SO₂) and NOx are precursors to fine particulates that can impair visibility by absorbing or scattering light in the atmosphere. When deposited on terrestrial or aquatic ecosystems, nitrogen and sulfur containing compounds can impact park ecosystems through acidification or nutrient enrichment. Industrial activities and urbanization in the surrounding region account for most impacts to air quality in the Preserve when compared to management activity (NPS, 2005).

The proposed action would result in emissions of GHGs that are known to contribute to global climate change. These emissions are associated with combustion sources such as diesel drilling and completion/workover rig engines, drill pad construction equipment (i.e., dozers, backhoes, graders, etc.), equipment trucks, water trucks, drilling rig crew trucks/vehicles, portable lift equipment. Emissions of GHGs could also occur through venting or fugitive losses from valves and fittings, pumps, compressors, and the wellhead.

The selected alternative includes 4 phases of work. They are: construction; drilling; production; and plugging and final abandonment. The EA AQ/GHG analysis concludes that all phases of the project could result in emissions of particulate matter, NOx, CO, CO₂, and SO₂. Drilling would result in the greatest criteria pollutant emissions over the course of 30 days due to the increased use of vehicles and large diesel engines used to power the drilling rig. The production phase would result in the greatest level of GHG emissions because it would occur over the life of the well (20-30 years). Estimated emission levels in the EA are well below de minimis thresholds for ozone conformity analyses (50 TPY in serious nonattainment areas⁵) and the GHG reporting thresholds under the General Stationary Fuel Combustion Sources Regulation (40 CFR 98 Subpart C)⁶ (25,000 metric tons CO e). Emissions from all phases of activities would be greatest near sources of emissions and depending on wind and atmospheric conditions could disperse towards the park.

³ BITH AQ trends data: <https://www.nps.gov/subjects/air/park-conditions-trends.htm?tabName=summary&parkCode=BITH¶mCode=Overall%20Air%20Quality&startYr=2009&endYr=2021&timePeriod=Summary>

⁴ TCEQ BPA NAAQs at: <https://www.tceq.texas.gov/airquality/sip/bpa/bpa-status>

⁵ EPA de minimis levels at: <https://www.epa.gov/general-conformity/de-minimis-tables>

⁶ 40 CFR 98 at: <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-98>

Finding of No Significant Impact

Lawco Trigger #1 Cross-Boundary Exemption, Big Thicket National Preserve, Hardin County, Texas

The analysis area is influenced by activities such as open burning, residential and industrial fuel combustion, organic chemical transport, and on- and off-shore energy production activities, occurring in the BPA area, as well as the Houston/Galveston and Lake Charles, Louisiana airsheds. Emissions associated with the proposed action would be additive with background emissions and contribute to background air quality. As noted in Sections 3.1 (Affected Environment) and 3.3.1 (Direct and Indirect Impacts) in the EA, the BPA area is currently in attainment/unclassifiable status for all criteria air pollutants. Given this and the fact that project-related emissions are well below minimum levels for conformity analyses, cumulative impacts are anticipated to be insignificant.

The cumulative impacts analysis area consists of the Beaumont/Port Arthur airshed (consisting of Hardin, Orange, and Jefferson Counties). The primary pollutants transported from regions affecting BITH are VOCs and NO_x. Other pollutants that could affect BITH include CO, SO₂, and particulate matter (PM) (which include heavy metals and lead). Figures 2 and 3 in the EA show the EPA data collected on NO_x and VOC emission totals (NEI 2017), respectively for sources found in Hardin County, Texas. Mobile, biogenic, fires, and industrial sources account for most impacts on air quality in the area.

Past, present, and reasonably foreseeable future impacts on air quality would continue primarily as the result of industrial sources including pulp mills, oil refineries, petro-chemical manufacturing plants, public utilities, and vehicular and train engine emissions.

Non-Impairment Conclusion

The NPS has determined that implementation of the selected alternative will not constitute an impairment of the resources of the park. This conclusion is based on consideration of the park's purpose and significance, a thorough analysis of the environmental impacts described in the EA, comments provided by the public and the professional judgment of the decision maker guided by the direction in NPS Management Policies 2006.

APPENDIX C: RESPONSE TO PUBLIC COMMENT

The Big Thicket National Preserve EA was released on the NPS PEPC webpage for a 15-day public review period from June 24, 2023, to July 8, 2023. No substantive comments were received.

TEXT CHANGE ERRATA

The NPS reviewed public comments and determined that no text changes to the EA were needed. Therefore, no errata were prepared for the EA.

APPENDIX D: REFERENCES

- 2005 National Park Service Final Oil and Gas Management Plan, Environmental Impact Statement, Big Thicket National Preserve. December 2005.
- 2006 “National Park Service Management Policies” Accessed July 27, 2023.
https://www.nps.gov/subjects/policy/upload/MP_2006.pdf
- 2015 “National Park Service NEPA Handbook.” Accessed July 27, 2023.
<https://www.nps.gov/subjects/nepa/policy.htm>.
- 2017 Environmental Protection Agency National Emissions Inventory (NEI) Data. Accessed July 27, 2023.
<https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data>