

Cumulative Impacts Plan

North Cheyenne Oil and Gas Development

Travis 1-10 Pfaffly 1-12

This Cumulative Impacts Plan has been prepared by Navex Resources, LLC (Navex) for its North Cheyenne oil and gas development in Kit Carson County, Colorado. Navex proposes to develop the following two Oil and Gas Locations:

Table 1. Location Description

Location	Legal Description	Lat/Lon
Travis 1-10	SE ¼ NE ¼ Section 10 Township 11 South, Range 45 West	39.108632 / -102.432658
Pfaffly 1-12	NW ¼ SW ¼ Section 12 Township 11 South, Range 46 West	39.103763 / -102.516761

Navex is proposing to develop one conventional vertical oil and gas well at each location for production of oil and condensate, natural gas, natural gas liquids, and inert gases, including helium. Each well will be approximately 6,000 feet deep. If the exploratory wells are developed for production, oil and condensate will be trucked off site for commercial sale. Produced water will be trucked off site for disposal at a permitted third-party underground injection control well. Natural gas will be piped underground to tie into the existing Ladder Creek Gathering System operated by Tumbleweed Midstream. The existing Ladder Creek Gathering System delivers natural gas to Tumbleweed Midstream's Ladder Creek Helium Plant in Cheyenne Wells, Colorado. From there, Tumbleweed Midstream pipes natural gas underground to the Colorado Interstate Gas Company's midstream pipeline and processes natural gas liquids, inert gases, and helium for end users.

Each well will be on fee surface for production of fee minerals. The locations are on agricultural land leased from private landowners. The existing agricultural disturbances are from cultivation of dryland crops. Each location will be approximately 3.0 acres during development with a Working Pad Surface of 2.7 acres. After interim reclamation, the production pad will be downsized to an estimated 2.0 acres.

Each site is expected to require 2 days to construct. Well drilling is expected to require 7 to 14 days. Completion is expected to require 6 days. Interim reclamation is expected to require 2 days. Revegetation will occur during the first growing season after well development is complete and within 3 months of well completion.

During production, each location will have a single operating well with a pump jack, a heated separator, four 300-bbl storage tanks inside of secondary containment for oil and produced water, and a buried gas sales line. There will be an estimated two round trip vehicle trips on and off the location daily during production, one for maintenance and one to transport oil or produced water off site.

During production, a 2-inch-diameter natural gas flowline will be buried underground at each location to tie in with the existing Ladder Creek Gathering System. At the Travis 1-10 location, the off-location flowline will be located in the access road and along approximately 2,640 feet of county road right-of-way (ROW) under a written easement granted by Kit Carson County on February 3, 2022. At the Pfaffly 1-12 location, the off-location flowline will be approximately 200 feet long and buried on private agricultural land south of the location.

This Plan addresses the Colorado Oil & Gas Conservation Commission (COGCC) requirement at Rule 304.c.(19) to prepare a Cumulative Impacts Plan documenting how the Operator will address cumulative impacts to resources identified in Rule 303.a.(5). Pursuant to Rule 304.c.(19), the Plan includes:

- A. A description of resources to which cumulative adverse impacts are expected to increase;
- B. A description of measures taken to avoid or minimize the extent to which cumulative impacts are increased;
- C. A description of measures taken to mitigate or offset cumulative impacts; and
- D. Additional information determined to be reasonable and necessary to the evaluation of cumulative impacts.

Resources listed in Rule 303.a.(5) and addressed in this Plan are:

- Air Resources
- Public Health
- Water Resources
- Terrestrial and Aquatic Wildlife Resources & Ecosystems
- Soil Resources
- Public Welfare, including:
 - Noise
 - Light
 - Odor
 - Dust
 - Recreation and Scenic Values

1.0 Air Resources

A. Cumulative Impacts

The proposed North Cheyenne oil and gas development is proposed in Kit Carson County, Colorado. The area is designated attainment for National Ambient Air Quality Standards established by the U.S. Environmental Protection Agency. There will be cumulative impacts from air emissions of criteria and non-criteria pollutants from equipment used during pre-production and production.

The estimated short-term pre-production emissions and long-term production emissions are shown below for a single location. The Oil and Gas Development Plan (OGDP) contains two locations: Travis 1-10 and Pfaffly 1-12. The estimated emissions are shown for a single location. The estimates are the same for each location. Pre-production emissions include operations for construction, drilling, and completion. Production emissions represent 1 year of operation. Diesel vehicle road miles are shown by location for all phases of development.

Table 2. Pre-Production Emissions (tons)

	NOx	CO	VOCs	Methane	Ethane	CO2	N2O
Process Heaters or Boilers	0	0	0	0	0	0	0
Storage Tanks	0	0	0.2	0	0	4.8	0
Venting or Blowdowns	0	0	0	0	0	0	0
Combustion Control Devices	0	0	0	0	0	0	0
Non-Road Internal Combustion Engines	4.5	1.32	0.19	0.022	0	529.7	0.004
Drill Mud	0	0	1.4	3.4	0.41	0	0
Flowback or Completions	0.01	0.07	0.12	0.15	0.02	15	0
Loadout	0	0.02	0.02	0	0	0	0

Table 3. Production Emissions (tons)

	NOx	CO	VOCs	Methane	Ethane	CO2	N2O
Stationary Engines or Turbines	1.4	0.1	0.1	0.01	0	0.25	0
Process Heaters or Boilers	0.11	0.09	0.01	0.002	0	129	0.002
Storage Tanks	1.78	8.13	2.83	0	0	2935	0.01
Dehydration Units	0	0	0	0	0	0	0
Pneumatic Pumps	0	0	0	0	0	0	0
Pneumatic Controllers	0	0	0	0	0	0	0
Separators	0	0	0	0	0	0	0
Fugitives			0.66	0.13	0.02	0.01	
Venting or Blowdowns	0	0	0	0	0	0	0
Combustion Control Devices	0	0	0	0	0	0	0
Loadout	0.01	0.06	0.22	0	0	16.5	0
Non-Road Internal Combustion Engines	0	0	0	0	0	0	0
Well Bradenhead	0	0	0	0	0	0	0
Well Maintenance	0	0	0	0	0	0	0

Table 4. Diesel Vehicle Road Miles

Diesel Vehicle Road Miles	Construction	Drilling	Completions	Interim Reclamation	Production ¹
Travis 1-10	200	4896	600	100	365,000
Pfaffly 1-12	240	5520	720	120	438,000
TOTAL	440	10,416	1,320	220	803,000

¹Life of production

B. Measures to Avoid or Minimize Cumulative Impacts

To avoid or minimize air impacts, NAVEX will:

- Submit for review and implement a pre-production Air Quality Monitoring Program to establish baseline, pre-production emissions, and 6 months of emissions during production.
- Use a closed-loop drilling system to minimize emissions.
- Contain flowback and produced water in enclosed tanks. Vapors will be controlled using an enclosed combustor with a rating of 99 percent destruction efficiency.
- Implement a leak detection and repair (LDAR) program using audio, visual, and olfactory (AVO) monitoring for leak and spill detection.
- Maintain and periodically test tank seals to ensure that they provide the required back pressure and prevent emissions.
- Use automated tank gauges to gauge liquids without opening the thief hatch.
- Commit to connecting to a gas gathering system after well drilling and completions.

- Comply with conditions of permits issued by the Colorado Department of Public Health and Environment (CDPHE), Air Pollution Control Division.
- Schedule the 2-day well pad construction to avoid high-wind warnings issued for Kit Carson County.
- Develop conventional vertical wells without use of proppant.
- Water the well pad when indicated by loose soils to stabilize the soil and form a crust.
- Place aggregate at the tie in to the county road.
- Minimize vegetation removal and soil disturbance to the area sufficient to site and level the drill rig, tanks, and equipment.
- Mound the soil stockpile with a slope of approximately 1:3 to prevent loose soils.

C. Measures to Mitigate or Offset Cumulative Impacts

To mitigate or offset air impacts, Navex will:

- Reclaim the areas not needed to support production within 3 months of completing well development.

D. Additional Information

See detailed information in the Dust Mitigation Plan and Topsoil Protection Plan submitted with the Form 2A application.

2.0 Public Health

A. Cumulative Impacts

The Travis 1-10 location is approximately 1.7 miles from the nearest residence. The Pfaffly 1-12 location is approximately 1.6 miles from the nearest residence. There are no Disproportionately Impacted Communities affected by either location. On each location, the single conventional vertical well will be drilled using a water-based mud and a closed-loop drilling system over a short duration of approximately 7 to 14 days for well drilling and 6 days for completion. During pre-production and production, the facility will operate with an enclosed combustor and in accordance with CDPHE standards. The vapor controls from the enclosed combustor have a manufacturer control rating of 99 percent destruction. There will be no cumulative impacts to public health because of the closed-loop drilling system, enclosed tanks, vapor controls, short duration for well development, and significant distances to receptors.

Estimated short-term pre-production emissions and long-term production emissions of hazardous air pollutants are shown below. The estimated emissions are shown for a single location. The estimates are the same for each location. Production emissions represent 1 year of operation. Estimated vehicle trips are shown by location for all phases of development.

Table 5. Pre-Production Emissions (pounds)

	Benzene	Toluene	Ethylbenzene	Xylenes	n-Hexane	2,2,4-TMP	H2S	Formaldehyde	Methanol	Total (HAP)
Process Heaters or Boilers	0	0	0	0	0	0	0	0	0	0
Storage Tanks	0	0	0	0	0.5	0	0	0	0	0.5
Venting or Blowdowns	0	0	0	0	0	0	0	0	0	0
Combustion Control Devices	0	0	0	0	0	0	0	0	0	0
Non-Road Internal Combustion Engines	1.78	0.78	0	0.55	0	0	0	2.26	0	5.4
Drill Mud	0	0	0	0	0	0	0	0	0	0
Flowback or Completions	1	1.2	2	0	198	28	0	0	0	230.2
Loadout	0	0	0	0	0	0	0	0	0	0

Table 6. Production Emissions (pounds)

	Benzene	Toluene	Ethylbenzene	Xylenes	n-Hexane	2,2,4-TMP	H2S	Formaldehyde	Methanol	Total (HAP)
Stationary Engines or Turbines	3.91	0.69	0.64	0.06	0.29	1.74	0	82.6	0.39	90.3
Process Heaters or Boilers	0	0	0	0	0	0	0	0	0	0
Storage Tanks	12.41	0	0	0	144	0	0	0	0	156.4
Dehydration Units	0	0	0	0	0	0	0	0	0	0
Pneumatic Pumps	0	0	0	0	0	0	0	0	0	0
Pneumatic Controllers	0	0	0	0	0	0	0	0	0	0
Separators	0	0	0	0	0	0	0	0	0	0
Fugitives	3.35	6.87	1.73	6.03	141	3.53	0	0	0	162.5
Venting or Blowdowns	0	0	0	0	0	0	0	0	0	0
Combustion Control Devices	0	0	0	0	0	0	0	0	0	0
Non-Road Internal Combustion Engines	0	0	0	0	0	0	0	0	0	0
Loadout	0.77	0	0	0	2.92	0	0	0	0	3.7
Well Bradenhead	0	0	0	0	0	0	0	0	0	0
Well Maintenance	0	0	0	0	0	0	0	0	0	0

Table 7. Vehicle Trips

Vehicle Trips	Construction	Drilling	Completions	Interim Reclamation	Production Per Mo / Yr
Travis 1-10	15	222	24	4	124 / 1,488
Pfaffly 1-12	15	222	24	4	124 / 1,488
TOTAL	30	444	48	8	248 / 2,976

B. Measures to Avoid or Minimize Cumulative Impacts

To avoid or minimize public health impacts, NAVEX will:

- Submit for review and implement a pre-production Air Quality Monitoring Program to establish baseline, pre-production emissions, and 6 months of emissions during production.
- Use a closed-loop drilling system to minimize emissions.
- Contain flowback and produced water in enclosed tanks. Vapors will be controlled using an enclosed combustor with a rating of 99 percent destruction efficiency.
- Implement a leak detection and repair (LDAR) program using audio, visual, and olfactory (AVO) monitoring for leak and spill detection.
- Maintain and periodically test tank seals to ensure that they provide the required back pressure and prevent emissions.
- Use automated tank gauges to gauge liquids without opening the thief hatch.
- Commit to connecting to a gas gathering system after well drilling and completions.
- Comply with conditions of permits issued by CDPHE.
- Perform well development over a short duration of approximately 7 to 14 days for well drilling and 6 days for completion.

C. Measures to Mitigate or Offset Cumulative Impacts

To mitigate or offset air impacts, Navex will:

- Site wells to the extent practicable to maximize the distance to the nearest receptor.

D. Additional Information

See detailed illustration of the surrounding areas on the Cultural Features Map submitted with the Form 2A application.

3.0 Water Resources

A. Cumulative Impacts

The proposed Travis 1-10 location is greater than 0.5 miles from the nearest surface water. The proposed Pfaffly 1-12 location is greater than 0.5 miles from the nearest surface water. Mapped features closer to the locations were field verified to be upland swales lacking an ordinary high water mark or hydrophytic vegetation, and are not waters of the state.

The Travis 1-10 location is greater than 0.5 miles from the nearest water well. The estimated depth to groundwater is 150 feet. The Pfaffly 1-12 location is approximately 1,730 feet from a water well. The estimated depth to groundwater is 205 feet. Groundwater depths are based on well logs.

There will be no cumulative impacts to water wells or surface water because of the distances to water wells and surface water, the depths to groundwater, well development without use of pits or ponds, steel secondary containment around liquids storage, and drill cutting burial in a drill cuttings trench on location only after testing for compliance with constituents in the 900 Series Rules, Table 915-1.

There will be cumulative impacts from the volume of groundwater used for well development. Water will be sourced from a municipal groundwater well and trucked to the locations. The municipal groundwater well is a non-potable well made available by the town of Cheyenne Wells for water haulers. This groundwater source is not otherwise treatable to drinking water standards. The well is metered by the Public Works Department. Water use for well development will be an estimated 3,500 bbl per well (approximately 150,000 gallons). The total water use for two wells will be an estimated 7,000 bbl (300,000 gallons).

B. Measures to Avoid or Minimize Cumulative Impacts

To avoid or minimize water impacts, NAVEX will:

- Buffer the locations from surface water by more than 0.5 miles.
- Develop conventional vertical wells without hydraulic fracturing.
- Ensure that drilling equipment has a liner under the motor to capture drips or leaks and a fuel tank integrated with the drill rig motor to avoid a separate fuel tank on the location.
- Store fluids inside of steel secondary containment sized to 150 percent of the size of the largest tank. Secondary containment will be visually inspected for evidence of damage, deterioration, or loss of integrity. Repairs will be made promptly to prevent the risk of migration from a leak or spill.
- Install catch basins on loadout piping. Loadout piping will contain bull plugs when not in use.
- Test tanks per manufacturer's specifications prior to putting them into service for production. Periodic integrity testing after initial startup will occur per API or STI standards and manufacturer's recommendations.
- Power the pump jack motor using source gas. There will be no fuel tank on the location during production.

- Monitor transfer lines visually at the connection points for stains, drips, or other signs of leakage requiring correction and will be repaired promptly.
- Temporarily berm a catastrophic loss of fluid, if necessary, using the backhoe available on site until third-party support provides additional response and remediation.
- Place silt fence or wattles to prevent sediment runoff from the location.

C. Measures to Mitigate or Offset Cumulative Impacts

To mitigate or offset water impacts, Navex will:

- Develop wells using a closed-loop drilling system to reduce water use by recycling water in-situ.
- Source groundwater from a designated and metered non-potable groundwater well, made available to water haulers by the Town of Cheyenne Wells, Public Works Department. The controlled and metered use of groundwater will promote its conservation. This groundwater source is not otherwise treatable to drinking water standards.
- Perform interim reclamation within 3 months of completion of well development to stabilize disturbed soil.

D. Additional Information

See detailed information in the Fluid Leak Detection Plan, Stormwater Management Plan, Interim Reclamation Plan, and on the Hydrology Map submitted with the Form 2A application.

4.0 Terrestrial and Aquatic Wildlife Resources & Ecosystems

A. Cumulative Impacts

There will be no cumulative impacts to high priority habitat (HPH) or species of concern. The locations are not considered in HPH or mapped habitat for species of concern. A nest mapped as high priority habitat for ferruginous hawk within 0.5 miles of the Travis 1-10 location was changed by Colorado Parks and Wildlife (CPW) from “active” to “destroyed” in the CPW database. CPW communicated the change in status on March 28, 2022 and waived consultation per Rule 309.e.(3).C.i. The pre-application communication with CPW and detailed raptor monitoring results are provided in the CPW Pre-application Consultation Summary submitted with the Form 2A application. The areas are historically disturbed from active agricultural operations and dirt roads. The nearest high priority habitat is lesser prairie chicken Estimated Occupied Range, approximately 3.4 miles south of Travis 1-10 and 3.3 miles south of Pfaffly 1-12.

Colorado is part of a broad Central Flyway for migratory birds, one of four North America flyways. There is no mapping specific to migratory bird pathways near the Oil and Gas Locations, according to data provided by the U.S. Fish and Wildlife Service, Colorado Parks and Wildlife, and National Audubon Society. The locations have no nearby ponds or wetlands to attract migratory birds. There will be no cumulative impacts to migratory bird pathways.

The locations are zoned Dry Farm Land-Agricultural by Kit Carson County. Current land use is for agricultural fields that are disturbed from human activity and cultivation of dryland crops. During the growing season crops, such as corn and wheat, may provide cover and forage for birds and wildlife. After harvest, field stubble also may provide seeds for birds and wildlife. Each location will convert 3 acres of land from cultivation to well pad development, or 6 acres total. There will be an additional use of 1 acre for access roads and flowline corridors. The total combined use will be an estimated 7 acres. After interim reclamation, portions of the well pads (1 acre at each location) and both flowline corridors will be restored. This will result in an estimated 2 acres of reclaimed foraging habitat. The cumulative loss of cover and foraging habitat for birds and wildlife will be an estimated 7 acres during short-term well development and 5 acres for production pads and access roads during production.

B. Measures to Avoid or Minimize Cumulative Impacts

To avoid or minimize terrestrial and aquatic wildlife resources and ecosystem impacts, NAVEX will:

- Not have open water or open liquids storage on the locations during pre-production or production.
- Operate a slow moving conventional pumpjack during production.
- Keep the location unlit during production.
- Ensure that trenches left open for more than 5 consecutive days during construction of flowlines regulated under the 1100 Series Rules have wildlife escape ramps at a minimum of one ramp per ¼ mile of trench.
- Either conduct all vegetation removal necessary for oil and gas operations outside of the nesting season for migratory birds (April 1 to August 31) or conduct a pre-construction nesting migratory bird survey within the approved disturbance areas prior to any vegetation removal during the nesting season.
- Consolidate and centralize fluid collection and distribution facilities to minimize impact to wildlife.
- Install screening or other devices on the stacks and on other openings of the heated separator to prevent entry by migratory birds.

C. Measures to Mitigate or Offset Cumulative Impacts

To mitigate or offset terrestrial and aquatic wildlife resources and ecosystem impacts, Navex will:

- Downsize each location during interim reclamation to a 2-acre production pad.
- Reclaim the remaining 1 acre at each location to pre-construction habitat.
- Reclaim the flowline corridors to return them to pre-construction habitat.
- Till the reclaimed area to re-establish a seedbed. In cooperation with the surface owner, Navex will identify appropriate soil amendments to promote vegetative growth.
- Identify a perennial cover or a crop in cooperation with the surface owner and Kit Carson County agricultural extension to provide cover and potential foraging habitat.

D. Additional Information

See detailed information in the Wildlife Protection Plan and Interim Reclamation Plan, and on the Wildlife Habitat Map submitted with the Form 2A application.

5.0 Soil Resources

A. Cumulative Impacts

Soils at the Oil and Gas Locations, access roads, and flowline corridors are:

Travis 1-10

39: Kimst-Richfield, eroded complex, 1 to 5 percent slopes

74: Richfield, silty clay loam, 0 to 2 percent slopes

Pfaffly 1-12

52: Norka, silt loam, 0 to 3 percent slopes

56: Norka-Colby, silt loams, 5 to 15 percent slopes

The A horizon for these soil types is silt loams and silty clay loams overlaying silt or clay loams. The soils are well drained. The disturbed vegetation consists of dryland crops, most recently wheat.

The Oil and Gas Locations will disturb approximately 3 acres at each location. Access roads and flowline corridors will disturb a combined approximately 1 acre. The total combined disturbance is an estimated 7 acres. The estimates are shown below. There will be cumulative impacts to soil resources and vegetation from disturbance of topsoil for well pads, access roads, and flowlines. After interim reclamation, the impacts will be reduced to approximately 5 acres during production for production pads and access roads. After final reclamation, the impacts will be eliminated by plugging the wells in accordance with COGCC requirements, removing equipment and surfacing material, and restoring the locations to specifications from COGCC and the landowners.

Table 8. Disturbance Area

Location	Oil and Gas Location (ac)	Access Roads (ac)	Flowlines (ac)	Total Disturbance (ac)	Interim Reclamation (ac)
Travis 1-10	3.0	0.5	0.040	3.5	1.0
Pfaffly 1-12	3.0	0.5	0.003	3.5	1.0
TOTAL	6.0	1.0	0.040	7.0	2.0

B. Measures to Avoid or Minimize Cumulative Impacts

To avoid or minimize soil impacts, NAVEX will:

- Bury the flowlines in trenches approximately 8 inches wide to minimize the disturbance acreage.
- Bury the flowlines at the Tavis 1-10 location within the access road for the first 1,070 feet to centralize the disturbance.
- Protect topsoil from contamination by stockpiling it in a location free from drilling, fuel storage, and parking.
- Segregate soil removed during flowline trenching based on changes in physical characteristics. The soil layers will be windrowed adjacent to the trench.
- Protect soil from compaction by designating it with surveyor staking and flagging as topsoil for reclamation.
- Protect the topsoil stockpile from wind degradation by mounding at an approximately 1:3 steepness to prevent loose soils while promoting continued microbial activity.
- Protect the topsoil stockpile from erosion by ensuring that stormwater controls and diversions are installed, where needed, to divert stormwater away from the stockpile.
- Allow vegetation to establish on the topsoil stockpile to stabilize it, outcompete weeds, and promote soil microbial activity.
- Install erosion controls to prevent stormwater run on and runoff.

C. Measures to Mitigate or Offset Cumulative Impacts

To mitigate or offset soil impacts, Navex will:

- Salvage and segregate topsoil based on the results of soil test pits for texture, color, structure, consistency, and organic matter.
- Replace soils from the flowline trench promptly in the order in which they were removed.
- Conduct interim reclamation during the first favorable growing season and within 3 months after well drilling is complete.

D. Additional Information

See detailed information in the Topsoil Protection Plan, Stormwater Management Plan, and Interim Reclamation Plan submitted with the Form 2A application.

6.0 Public Welfare**A. Cumulative Impacts****Noise**

Well drilling will be a short 7 to 14 days at each location. Completions will be an estimated 6 days at each location. The nearest residences are 1.6 and 1.7 miles away from the Pfaffly 1-12 and Tavis 1-10 locations, respectively. The areas do not support HPH or habitat mapped for species of concern. The locations are historically disturbed from human activity, agricultural operations, and dirt roads. During production, each location will contain only a pump jack, heated separator, enclosed combustor, and storage tanks inside of secondary containment. Routine inspection and maintenance visits will be conducted using a light-duty pickup truck. Produced water or oil will be offloaded using approximately one round-trip truck trip per day. No processing will occur on the location. There will be no cumulative impacts from noise because of the distance to the nearest residential building units; the lack of species of concern; the existing disturbances from agricultural operations and dirt roads; the short drilling and completion durations; and the limited truck trips during production.

Light

Stationary lighting during well drilling and completion will be limited to lights mounted on the drill rig that are cast downward to illuminate the operations. Headlights will be operating on vehicles entering or exiting the locations at night. The locations will be unlit during production. There will be no cumulative impacts from light because of the short well development operations; distances to the nearest residences; unlit facilities during production; and lack of HPH or habitat for species of concern.

Odor

The single conventional vertical well at each location will be drilled using a water-based mud and a closed-loop drilling system over a short duration of approximately 7 to 14 days. During production, the locations will operate with vapor recovery controls and using enclosed combustors with a manufacturer control rating of 99 percent destruction efficiency. The nearest residences are 1.6 and 1.7 miles away. There will be no cumulative impacts from odor because of the controls in place and lack of receptors.

Dust

Each Oil and Gas Location will disturb approximately 3 acres of land, plus an additional approximately 1 acre for access roads and flowlines. The Working Pad Surfaces will be reduced to 2 acres, each, after interim reclamation. The reclaimed areas and flowline corridors will be revegetated. The wells will be drilled without proppant. Cumulative impacts from dust will be controlled using the best management practices (BMPs) listed below and in the operator's Dust, Topsoil, and Interim Reclamation Plans. The BMPs address limiting disturbance areas, controlling vehicle speeds, road maintenance, topsoil stockpile stabilization, and reclamation.

Recreation and Scenic Values

The locations are in remote areas in Kit Carson County on disturbed agricultural land not accessible to the public. The locations will be greater than 1,000 feet from a public road. There will be no cumulative impacts to recreation and scenic values because the locations have no nearby public recreation and do not contrast with existing land uses. For vehicles passing by, the small size and nature of the operations is consistent with other land uses, which include buildings, tanks, grain silos, and wind turbines. There are no active, permitted, or proposed oil and gas

locations within 1 mile of either location. There are no nearby state parks, state wildlife areas, trust lands, designated outdoor activity areas, or mapped trails.

B. Measures to Avoid or Minimize Cumulative Impacts

To avoid or minimize public welfare impacts, NAVEX will:

- Maintain equipment and vehicles in proper working condition to minimize noise.
- Cast lights downward on the operations during well drilling and completions.
- Schedule the 2-day well pad construction to avoid high-wind warnings issued for Kit Carson County.
- Water the well pad when indicated by loose soils to stabilize the soil and form a crust. Water will be sourced from a non-potable municipal groundwater well from a groundwater source that is not otherwise treatable to drinking water standards.
- Reclaim the areas not needed to support production within 3 months of completing well development.
- Place aggregate at the tie in to the county road.
- Minimize vegetation removal and soil disturbance to the area sufficient to site and level the drill rig, tanks, and equipment.
- Mound the soil stockpile with a slope of approximately 1:3 to prevent loose soils.

C. Measures to Mitigate or Offset Cumulative Impacts

To mitigate or offset public welfare impacts, Navex will:

- Comply with the noise levels specified in Rule 423.b.(1).
- Reduce truck traffic by using, in part, a gas pipeline for takeaway capacity.
- Paint tanks a desert tan (or similar) to blend with the surrounding landscape.

D. Additional Information

See detailed information in the Dust Control Plan, Topsoil Protection Plan, and Interim Reclamation Plan submitted with the Form 2A application.