



May 7, 2012

Eric J. Winthers, Acting District Ranger
Big Piney Ranger District
Bridger-Teton National Forest
P.O. Box 218
Big Piney, WY 83113

Dear Ranger Winthers:

Please accept the following scoping comments on behalf of the Wyoming Outdoor Council, Greater Yellowstone Coalition and The Wilderness Society regarding True Oil, LLC's proposed Lander Peak Exploration Project on the Bridger-Teton National Forest. We appreciate your willingness to extend the public comment period and look forward to working constructively within this process to ensure the scope and extent of the environmental analysis is sufficient. In addition, should this project ultimately be authorized, the Forest Service and BLM should require True Oil to adhere to operational standards and best management practices that would limit the project's impacts to the Wyoming Range's cherished public land and resources to the greatest extent possible.

Our organizations have a long history of involvement in the administrative processes related to oil and gas leasing and drilling proposals on the Bridger-Teton National Forest. We were leading partners in the effort to see passage of the 2009 Wyoming Range Legacy Act, which withdrew 1.2 million acres of the forest from future oil and gas leasing. We continue to monitor and advocate for the cancellation and withdrawal of the contested 44,720 acres along the eastern front of the Wyoming Range, and we are actively involved in finding solutions that will safeguard the Upper Hoback Basin from industrial development.

The leases upon which True Oil now proposes to drill fall outside of the Wyoming Range Legacy Act's boundaries. Because True Oil's leases were in production at the time of the Act's passage, this area—surrounded on three sides by lands encompassed in the legislation—was excluded from the Act. Moreover, we recognize that a project envisioning just two exploratory wells and a reservoir in an already disturbed area is one that on its face may not appear to pose significant environmental impacts.

That being said, for all the reasons passage of the Legacy Act was necessary, namely to safeguard wildlife habitat and recreational opportunities, and to ensure additional oil and gas

development would not contribute to the air and water quality degradation associated with other nearby oil and gas fields in Sublette County, any expansion of industrial development in the Wyoming Range remains a significant concern. Two additional factors heighten our concern about this project, each of which will be addressed in more detail below: 1) allegations of True Oil's past non-compliant operational history in this very area; and 2) True Oil's documented future plans to expand the field to some 40 wells.

To address the first issue—True Oil's operational history in this field—we ask you to review a letter the Wyoming Outdoor Council sent to the Forest Service, Wyoming Department of Environmental Quality and Wyoming Oil and Gas Conservation Commission on June 25, 2006. A copy of this letter is enclosed as Attachment #1. As the letter indicates, that summer a Daniel resident photographed leaking tanks and valves, discolored soil and dilapidated equipment associated with True Oil's well #13-16 in the Soda Unit, (T 32N, R 115W, Section 16 SW/NW). At his urging we asked the Forest Service to investigate, which it did. Please see the enclosed photo entitled Attachment #2, which shows the questionable state of True Oil's operations during the summer of 2006.

Although we assume the Forest Service required True Oil to repair its leaky equipment and to make sure any contamination was properly addressed, this situation resulted in a breach of the public trust. True Oil's disregard for the upkeep of its equipment, which may have caused soil or water contamination, is a poor track record, especially for a company operating in a sensitive and popular area of the Bridger-Teton National Forest. Consequently, there is increased concern that future environmental quality violations could result if True Oil is allowed to expand its operations.

Of equal or greater concern, is that these clear and obvious mechanical problems and potential environmental quality violations could be left unchecked and unaddressed by the Forest Service, as was the case in 2006. The Forest Service is charged with ensuring no unauthorized damage to surface resources results from any oil and gas development on the public lands it manages. In this case, the Forest Service failed to adequately oversee and monitor True Oil's operation. It didn't address evident problems until concerned citizens alerted the agency.

Thus, we ask the Forest Service to consider its staffing capacity in the upcoming environmental assessment. This capacity (or lack of capacity) should be specifically assessed and a determination should be made whether the agency can assure the public that future violations, should they occur, will not go unchecked or unaddressed. Moreover, we ask the agency, in coordination with the BLM, to require best management practices to avoid any future violations. These BMPs are discussed in more detail beginning below on page 10.

Our second major concern about True Oil's current proposal of only two wells is that it fails to mention its plans to expand the field to as many as 40 wells if exploration proves successful. In October 2010, True Oil submitted a three-phase proposal for a Master Development Plan (MDP) of 40 gas wells, including what appear to be the exact, two exploratory wells in this scoping notice plus 38 additional gas wells. True Oil's MDP is enclosed as Attachment #3.

Although True Oil has apparently withdrawn its full MDP application, asking for approval of only its Phase I exploratory operations, the company submitted highly detailed plans stating its intention to significantly expand its operations in this area. This larger MDP is not mentioned in the scoping notice, even though it is clearly connected to, and a reasonably foreseeable future action that could result from, the proposed action itself. We ask the Forest Service to address this in any environmental analysis it prepares.

To be clear, we are not necessarily asking for an environmental analysis that would ultimately approve a MDP, although it may be appropriate here. Regardless of the format (i.e. an EIS associated with a MDP or an analysis that includes a consideration of impacts from full field development but only authorizes Phase I) True Oil's full field development proposal should be disclosed and considered in any environmental analysis the Forest Service prepares. As we understand the MDP framework, it is appropriately applied within existing fields, where there is a known resource and well pad placement and other impacts can be analyzed with specificity. For that reason, the subsequent APDs that are filed can be categorically excluded from further NEPA review.

In a situation like True Oil's, where a new formation is being tested for productivity for the first time, it may not be appropriate to authorize the full field via a MDP prior to exploratory drilling. As we've learned from PXP's proposal, given the unique facts of a project, attempts to analyze and authorize a MDP can be premature. Although we fully supported consideration of PXP's full field development plans as part of the Forest Service's NEPA process, PXP's attempts to estimate well pad placement without the benefit of geologic information from test wells has resulted in a generic approach to pad siting, rather than an accurate identification of specific locations that would be best for both the extraction of minerals and the protection of sensitive surface resources.¹

In this case, however, because True Oil has indicated that should it pursue full field development, such expansion will be relegated to areas where surface disturbance has already occurred, a MDP model may be feasible and even desirable. We would appreciate meeting with the Forest Service to discuss the benefits and drawbacks of analyzing True Oil's MDP at this time. Regardless of whether the analysis ultimately seeks to authorize a MDP—or merely two wells—we believe the Forest Service should consider True Oil's full field development plans within its cumulative impacts analysis.

¹ In 2006, when PXP requested the Forest Service consider only its Phase I exploratory operations of one to three wells in the Upper Hoback Basin, PXP told the public there was no way it could foresee the extent of future development without the benefit of exploration. In turn, the Forest Service argued it was impossible to analyze anything more than a few wells. PXP, however, simultaneously boasted to its shareholders of its plans for full field development. With the company telling its shareholders one thing and telling the public another, clarification was necessary. Specifically, we advocated that any and all actions that were connected (as full field development is to an exploratory drilling project) and/or reasonably foreseeable (as the CEO of PXP had suggested when he compared the Upper Hoback's geology to that of the Jonah Field's) ought to be fully disclosed to the public and analyzed thoroughly by the Forest Service. In requesting PXP disclose and the Forest Service analyze impacts from PXP's full field development proposal in an EIS, at least as far as could be reasonably known, we had not necessarily anticipated that the entire plan would then be authorized. In our requests for this larger development to be considered, we were interested in public disclosure, transparency and informed decision-making. It was the Forest Service that opted to employ the new master development plan framework to PXP's full field plans.

True Oil's prior questionable operational history in its existing field, coupled with its clear intention to expand the field to ten times its current size should the exploratory wells prove productive, should caution the Forest Service to approach its NEPA analysis thoroughly and cautiously. We ask the Forest Service to address these and the following issues in the upcoming environmental analysis it prepares:

- 1) Lease information, prior NEPA documentation and maps: The Forest Service should disclose to the public and include in its analysis True Oil's operable leases, including terms and conditions, a listing of any and all stipulations, controlled surface use and timing limitation stipulations, and lease notices, if applicable. In addition, any conditions of approval agreed to when the existing wells were permitted should be disclosed. As we learned by inspecting PXP's leases, these stipulations and conditions can be significant and should not be overlooked. Because True Oil's leases predate the current 1990 Forest Plan, the Forest Service should address whether the standards and guidelines in the plan relative to oil and gas development apply to True Oil's leases and if so, to what extent.

We ask the Forest Service to include on its website or include as an Appendix to the analysis the applicable leases and all accompanying EAs/FONSIs associated with leasing and with the approval of APDs for the existing wells on site. We also ask the Forest Service to include detailed and easy to decipher maps of the project area. Lease ownership, as well as a physical description of the project area (e.g. topography/slope, soil composition, acreage) should be discussed and illustrated. Moreover, maps should illustrate the project's proximity to the 44,720 acres of contested leases and the 2009 Wyoming Range Legacy Act boundaries.

- 2) Units: Please provide an overview of the areas in this field that are unitized and the unit names, as well as any new unitization agreements under consideration for this expanded field and new formation.
- 3) Drilling sequence, depth and well pad size: It is unclear which proposed well will be drilled first. Please specify. Please also provide all "downhole" information including depth of target formation and extent of any horizontal drilling. In addition, please confirm that True Oil will only require a 3-acre well pad size. The correct acreage should be taken into consideration in any analysis.
- 4) Scope of the project/analysis: Whether an EIS that considers (and potentially authorizes) True Oil's 40-well MDP is advisable is a question the Forest Service should take seriously. If it decides the analysis will only consider the authorization of two wells, True Oil's MDP should nevertheless be fully addressed in any cumulative impacts analysis. In particular, the Forest Service should include pertinent information regarding what the eventual "downhole" spacing would be for this formation if it proves productive. The public should have some idea of the scope of future full field production in the area.

The Forest Service should analyze a reasonable range of alternatives and should not narrowly constrict the purpose and need statement.

Significant changed circumstances now exist in the Green River Basin since the Forest Service approved True Oil's existing wells. These changes—including, but not limited to, expanded industrial energy development in Sublette County and the resulting adverse impacts of degraded air quality, contamination of groundwater and declining wildlife—should be included in any analysis.

- 5) Forest plan consistency: The Forest Service should address consistency with the current Bridger-Teton Forest plan including objectives, standards and guidelines for all affected resources including wildlife, recreation, clean water and clean air.
- 6) 44,720 contested lease acres: True Oil's field is adjacent to and nearly surrounded by acreage within the Wyoming Range Legacy Act of 2009, particularly the still-unresolved 44,720 acres improperly offered for oil and gas lease sale in 2005-2006. The Forest Service should consider the potential positive (i.e. if the leases were canceled and withdrawn) and adverse (i.e. if the leases were authorized/issued and ultimately developed) cumulative impacts that would result depending on the disposition of these leases.
- 7) Migratory, big game animals: The Forest Service should refer to and incorporate the most up-to-date big game data and seasonal range designation maps in its analysis. It should consider the potential direct, indirect and cumulative impacts associated with this proposal, and the impacts of this proposal coupled with other past, present and reasonably foreseeable future actions including, but not limited to, the Pinedale Anticline, Jonah Field, LaBarge Infill, Encana's Normally Pressurized Lance and PXP's proposed 136-well gas field in the Upper Hoback Basin. In addition, the scoping notice only mentioned elk and mule deer in its list of preliminary issues. Please include moose and pronghorn as well.
- 8) Canada lynx: True Oil's proposed development is located in designated critical lynx habitat and is adjacent to the 44,720 acres of oil and gas leases that remain contested and "voidable." Documented lynx presence with these 44,720 acres was one of the reasons the Forest Service cited for its initial decision not to lease (i.e. cancel and withdraw leases issued and offered in 2005-2006) on January 25, 2011. True Oil's plans for even small, industrial expansion in the area cannot adversely affect lynx or its habitat. The Forest Service must consult with the U.S. Fish and Wildlife Service prior to authorization of any expansion in the field and the outcome of that consultation should be included in the NEPA analysis to allow the public to review and comment upon it.

We ask the Forest Service to include an analysis that encompasses all relevant data about lynx habitat and presence in and around the project area. It should reference any and all studies currently underway or completed about lynx in the region and include complete data, acquired from its own records and data from other state and federal agencies and institutions that will provide sufficient baseline information upon which informed management decisions can be made.

The Forest Service's cumulative effects analysis with respect to lynx should include all past, present and reasonably foreseeable actions (e.g. timber harvest, vegetation treatment projects, oil and gas development and others) coupled with the reasonably foreseeable 40-well development project that could occur, the possibility that PXP will drill 136-wells in the Upper Hoback Basin and that the 44,720 acres could be developed.

- 9) Fisheries and amphibians: The Forest Service should consider the importance of the Cottonwood Creek area to the survival of Colorado River cutthroat trout (CRCT), the most imperiled of the cutthroat trout subspecies and one of the Bridger-Teton's management indicator species. Please address whether core conservation populations of CRCT reside in streams within the area. The analysis should also consider this watershed's importance to other native fish species and amphibians. Any analysis should include impacts from increased sedimentation as a result of erosion from road and well pad expansion/construction and other impacts associated with a reasonably foreseeable development scenario. Moreover, adequate setbacks from streams and riparian area of a quarter mile should be required for any authorized surface disturbance.
- 10) Greater sage-grouse: The USFWS will make a final determination whether the greater sage-grouse warrants listing under the Endangered Species Act by the end of 2015. Sustaining healthy populations of sage-grouse by protecting the sagebrush habitat on which the species depends—even outside designated core sage-grouse areas—is of great importance to citizens who value and deserve healthy populations of native wildlife

Although True Oil's proposed wells are not within a designated core sage-grouse area, the Forest Service should include a discussion of sagebrush habitat and lek presence within the project area. Maintaining and even enhancing the state's sagebrush habitats and current sage-grouse populations within and outside core areas is critical, particularly in the face of climate change, energy development, regional drought, West Nile virus, habitat loss and conversion, intensive grazing practices, and a host of other stressors affecting Wyoming's grouse. Research suggests that energy development impacts on leks are discernible out to four miles and some leks within this distance have been extirpated as a result of such development.² Furthermore, 74-80 percent of female sage-grouse typically nest within four miles of leks.³ Research has shown that current timing and seasonal stipulations in non-core areas are inadequate to protect grouse populations,² yet Wyoming cannot afford to sacrifice non-core area grouse populations given the ongoing declines in many of the state's core area populations.

² Holloran, M. J. 2005. Greater sage-grouse (*Centrocercus urophasianus*) population response to natural gas field development in western Wyoming. Ph.D. Dissertation. University of Wyoming, Laramie, WY. Walker, B. L., D. E. Naugle, and K. E. Doherty. 2007. Greater sage-grouse population response to energy development and habitat loss. *Journal of Wildlife Management* 71(8):2644-2654.

³ Moynahan, B. 2004. Landscape-scale factors affecting population dynamics of greater sage-grouse (*Centrocercus urophasianus*) in north-central Montana, 2001-2004. Ph. D. Dissertation. University of Montana. Missoula, MT. Holloran, M. J. and S. H. Anderson. 2005. Spatial distribution of greater sage-grouse nests in relatively contiguous sagebrush habitats. *Condor* 107:742-752.

The analysis should consider how roads, transmission lines, and other anthropogenic disturbances that accompany oil and gas development may adversely affect area sage-grouse populations. Energy development in undeveloped sagebrush areas has been shown to facilitate increases in the abundance of breeding ravens,⁴ with concomitant negative effects on nest survival of greater sage-grouse.⁵ Raven predation on grouse nests may have a significantly adverse impact on local grouse populations.⁶ The Wyoming Game and Fish recently summarized the significant threat posed to sage-grouse by ravens that colonize anthropogenic development.⁷

The Forest Service therefore should ensure that True Oil takes the necessary steps to prevent ravens from nesting on any structures that might accommodate nesting ravens in sage-grouse habitat to minimize adverse impacts to the area's sage-grouse and other sensitive sagebrush obligates. Power lines associated with the proposed project should be outfitted with raptor/raven perch and nesting deterrents to minimize potentially additive predation impacts on area grouse.

- 11) Grizzly bears: We appreciate the Forest Service's mention of grizzly bears in its list of important preliminary issues the analysis will consider. As the Forest Service knows, the Yellowstone population of grizzly bears is currently listed as Threatened under the Endangered Species Act, and virtually the entire Wyoming Range including the Cottonwood Creek drainage could be considered biologically suitable grizzly bear habitat. Grizzly bears have been documented as far south as the Middle Piney drainage and are increasingly common in northern areas of the Wyoming Range: <http://gf.state.wy.us/downloads/pdf/RegionalNews/dh-%20Big%20Piney%20bear.pdf>.

In its analysis, the Forest Service should consider the potential for conflicts that could result from increased human presence in the area leading to injury, harm, or direct or indirect mortality of grizzly bears—as well as risks to human safety. In order to protect human safety and the safety of grizzly bears, we recommend that the Bridger-Teton apply appropriate conservation measures in the Cottonwood Creek area and consider mandatory food and trash storage orders. These measures benefit not only grizzly bears, but minimize human-wildlife conflicts with a host of species.

⁴ E.g., Bui, T.-V. D., J. M. Marzluff, and B. Bedrosian. 2010. Common raven activity in relation to land use in western Wyoming: Implications for greater sage-grouse reproductive success. *Condor* 112:65-78.

⁵ Coates, P. S., and D. J. Delehanty. 2010. Nest predation of greater sage-grouse in relation to microhabitat factors and predators. *Journal of Wildlife Management* 74:240-248.

⁶ Coates, P.S. 2007. Greater sage-grouse (*Centrocercus urophasianus*) nest predation and incubation behavior. Ph.D. Thesis, Idaho State University, Boise, ID. 191 pp.

⁷ Christiansen, T. 2011. Ravens and greater sage-grouse in Wyoming. A report compiled by the Wyoming Game and Fish Department. Wyoming Game and Fish Department, Cheyenne, WY.

In addition, the current occupancy of grizzly bears in the project areas should be assessed. There are sound recommendations in the 1990 Forest Plan that should be considered as important conservation measures to help protect grizzly bears from the direct impacts of increased human presence. If this project is authorized, we ask the Forest Service to consider implementing any measures that will assist in future grizzly bear conservation.

- 12) Air quality: On April 30, 2012, the EPA formally designated Sublette County (and parts of Lincoln and Sweetwater Counties) in “non-attainment” with the National Ambient Air Quality Standard for ozone. The EPA’s website lists areas around the country with this designation at: <http://www.epa.gov/ozonedesignations/2008standards/final/finaldes.htm>. Moreover, there has been documented and forecasted visibility impairment in Class I and sensitive Class II U.S. Forest Service wilderness areas on the Bridger-Teton. For this reason, air quality and visibility impacts should be thoroughly considered in any analysis of True Oil’s proposed and foreseeable developments.

As we have stated in other comments related to oil and gas proposals on the Bridger-Teton in recent years, the Forest Service has an affirmative responsibility to protect air quality related values, including visibility over the lands within Class I areas, like the Bridger Wilderness.⁸ A decision to authorize activities that threaten to adversely impact the already degraded air quality in Sublette County and the reduced visibility in the Bridger Wilderness (which oil and gas development would) requires adequate air quality analysis and assurances that True Oil’s activities will not contribute to an already serious problem.

Any air modeling or analysis should consider the 40 possible wells that could be drilled here. The analysis should include all categories of emissions that will occur during the construction and operating phases of future development including drilling the wells, emissions from compressor stations and other surface facilities as well as from traffic to and from the field and associated transportation activities. The analysis should disclose impacts to National Ambient Air Quality Standards (NAAQS) and Prevention of Significant Deterioration (PSD) increments, as well as impacts to air quality related values in Class I areas. The Forest Service should address certain pollutants of concern including NO_x and VOCs—both ozone precursors—and sulfur dioxide. It should also analyze fine particulate matter that contributes to regional haze, including PM₁₀ as a result of road dust emissions as well as the changes in acid neutralizing capacity of various high mountain lakes.

⁸ This affirmative responsibility is stated in 42 U.S.C. § 7475(d)(1)(B). Forest Service wilderness areas are protected by provisions of the Clean Air Act. See 42 U.S.C. § 7401(b)(1) (stating that the purposes of the Clean Air Act are “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare...”); 42 U.S.C. § 7470(2), 7491(a)(1) (directing that air quality in protected landscapes and airsheds be protected). The Wilderness Act provides additional direction, requiring the Forest Service to administer wilderness areas so they are “unimpaired for future use and enjoyment as wilderness.” 16 U.S.C. § 1131(a). The goal established by the Clean Air Act is that “any future” impairment of visibility must be prevented and that “any existing” impairment of visibility must be remedied. 42 U.S.C. § 7491(a)(1) (emphasis added). Likewise, air quality must be “preserve[ed], protect[ed], and enhance[ed] in protected landscapes like wilderness areas, and the “affirmative responsibility” imposed on the Forest Service for these prevention of significant deterioration areas is to “protect” them, not to allow them to be incrementally degraded. Id. §§ 7470(2), 7475(d)(1)(B).

- 13) Water resources: Due to the large quantity of water needed for any new oil and gas development scenario, coupled with the threat of increased sedimentation that erosion from new or upgraded roads and expanded well pads will have on nearby streams, the Forest Service should ensure that its analysis of water resources—with respect to water quality and quantity—is complete and accurate. In other projects now being analyzed on the forest, the Forest Service noted generally that there is a lack of data with respect to these resources. This reality should give the agency pause and should be cited as a rationale to study comprehensively the groundwater aquifers that may be affected by the future oil and gas development True Oil proposes.

The Forest Service should provide data on aquifer structure, connectivity, recharge areas and water volumes in various aquifer zones. Additionally, it should thoroughly discuss the risks from potential groundwater contamination. The public is now quite familiar with situations in and around the Jonah and Anticline fields and fields in Pavillion, Wyoming where groundwater wells have become contaminated with hydrocarbons. Lack of baseline data, however, has allowed operators to attempt to deny responsibility for this pollution, claiming the wells were polluted before they started drilling. For this reason, it is imperative that proper baseline studies—resulting from a thorough groundwater characterization analysis—are conducted prior to any new drilling. In addition, a full discussion and illustration of the proposed casing and cementing of the well bores should be included in the analysis so that the public can be assured these are adequate to protect groundwater.

There are also numerous risks from the project that threaten surface water resources—especially with the close proximity of the one well pad to South Cottonwood Creek. The Forest Service should collect baseline data regarding stream quality prior to its preparation of this draft EIS and address the groundwater/surface water connectivity in the area and determine whether there are springs or other connections that make this area particularly vulnerable to spills.

- 14) Wetlands and riparian areas: The Forest Service should survey and map riparian areas and wetlands within the analysis area. It should require as a condition of approval adequate setbacks—now up to a quarter-mile in some fields—to prevent damage to these resources.
- 15) Socio-economic impacts: The Bridger-Teton plays a unique role in a regional economy reliant on the protection of natural resources in the Greater Yellowstone Area. The Forest Service should include in its analysis consideration of all economic and social drivers in the region with attention to the niche this part of the Bridger-Teton plays, especially in supporting long-standing and sustainable uses such as hunting, angling, dispersed camping and recreation. It should then consider the likely impact from these two to 40 wells on these users and economic drivers.

Please also include quantitative information about the work force needed for all phases of the project and whether any workers will be housed on-site.

- 16) Noxious weeds: Ground disturbing construction activities that remove vegetation to allow for well pad construction/expansion are a major pathway for the spread of invasive plants. The Forest Service has a duty not only to monitor and mitigate the spread of invasive plants, but also to prevent their spread when possible. The Forest Service should address its responsibilities to prevent the spread of invasive species. The agency should fully analyze current vegetative conditions by creating a baseline study that documents and maps the native and non-native plants in the area. It should also require mitigation throughout the life of the project to ensure this project does not contribute to the spread of noxious weeds.
- 17) Noise: The Forest Service should address impacts related to noise especially from drill rig operations, compressors, generators and truck traffic. All of these will have an impact on the now remote and quiet area if developed further. The analysis should also include the likely direct, indirect and cumulative impacts from noise to hunters, anglers, recreational users, wildlife and residents—especially ranchers—near the project area. The Forest Service should provide accurate and detailed information regarding truck traffic estimates for each phase of development.
- 18) Greenhouse gas emissions: The Forest Service should quantify the amount of greenhouse gas emissions estimated to be released in the atmosphere during all phases of drilling and production for the two to 40 wells anticipated and address technologies/best management practices to contain these gases.
- 19) Reservoir: We have concerns about the presence of a man-made reservoir as part of the proposed project. We ask the Forest Service to consider an alternative to this reservoir. The Forest Service should consider the effects of a potential failure of this impoundment as well.
- 20) Monitoring and compliance: Given the Forest Service's prior lack of oversight of operations in this very field in 2006, coupled with an era of declining funds for federal agencies, we are concerned there will not be adequate staff or resources to monitor operations and enforce compliance. We ask the Forest Service to address this challenge. We are also concerned that with natural gas prices at a record low, True Oil may not have the ability to develop the field to the highest standards and with the best environmental safeguards. Just because the leases are old, should not lower the bar for the kinds of innovative practices and safeguards True Oil should commit to implementing in any expanded development.
- 21) The following comments will address specific standards and best management practices we believe the Forest Service and BLM should require True Oil to comply with as conditions of approval for any new development in this field.

Water quality: With respect to water quality protection and pollution prevention, any full field development should require the following:

- A groundwater/aquifer characterization of the entire project area, including areas (residential wells, springs, recharge areas) potentially affected within and down gradient of the project area should be conducted.⁹
 - a. Based on characterization results:
 - i. Groundwater monitoring wells will be established;
 - ii. There will be limits on the number of supply water wells that will be drilled. Locations and depths will be based on the groundwater characterization study and for concentration of facilities/footprint
 - iii. Groundwater modeling will be used to adjust drilling based on projected impacts to springs, surface water, and groundwater.
 - iv. Baseline groundwater of key aquifers will be sampled; and
 - v. Surface water quality will be tested to establish baseline data prior to any development.
- A groundwater pollution prevention and monitoring plan should be developed for implementation during the entire life of the project through an agency-community team and with public review and comment.¹⁰
- Pitless drilling operations should be required.
- On-site water treatment plants, ponds, reservoirs and waste disposal wells should be prohibited. Wastes should be trucked to off-site treatment facilities.
- At minimum, non-toxic, water-based drilling and fracking fluids should be required.
- A Stormwater Pollution Prevention Plan should be incorporated into the Surface Use Plan of Operations and finalized before construction is authorized.
- Back flow prevention devices should be installed and used on all water supply wells and locked to prevent unauthorized use.
- The BLM should require proof from True Oil that well bores are properly cased and cemented prior to fracking and that all are inspected on a regular basis throughout the life of the project.
- Quarter-mile development setback (roads, pads and other infrastructure) from all streams, developed surface water inlets and spring developments.
- Wetlands, flood plains and riparian areas mapped and plotted for the project area including classification of streams and flows.¹¹
- Monitoring of surface water should be required for the life of the project.
- Adjacent property owners should receive a mailing prior to development identifying the recommended water testing parameters/constituents for their private wells, to assist in their water quantity and quality baseline testing, if they so choose.

Air quality: The Forest Service should ensure True Oil’s proposal has no adverse impacts on air quality or air quality related values (AQRVs), and with respect to the NAAQS non-attainment classification for ozone for Sublette County, that its proposal will not “increase the frequency or severity of any existing violation of [this] standard.”¹² The following should be considered as conditions of approval, especially if full field development is likely:

⁹ This is a component of the Pinedale Anticline Project Area (PAPA) record of decision (ROD), 2008.

¹⁰ This is another component of the PAPA ROD, 2008.

¹¹ Wyoming Game & Fish Department has specific recommendations for mitigations for wetlands, riparian areas and streams in oil and gas fields.

¹² Wyoming Air Quality Regulations, Chapter 8, Section 3 (b)

- Assess whether existing ambient air quality monitoring is sufficient to provide baseline data for development of this field. Baseline data should be collected for ozone, NO_x, VOCs, particulate matter, SO₂ and all other relevant criteria pollutants prior to disturbance activities to determine baseline air quality.¹³
- The Forest Service should conduct a conformity determination in accordance with Wyoming Air Quality regulations Chapter 8, section 3(c) (ii) to show that approving True Oil's planned operations will conform with the current or updated State Implementation Plan as developed for the ozone non-attainment area.
 - a. Any measures that are intended to mitigate air quality impacts should be identified and the process for implementation and enforcement of such measures must be described, including an implementation schedule containing explicit time lines for implementation. [Ch.8, Sec. 3(j)(i)]
 - b. Prior to determining that a Federal action is in conformity, the Federal agency making the conformity determination must obtain written commitments from the appropriate persons or agencies to implement any mitigation measures that are identified as conditions for making conformity determinations. [Ch.8, Sec. 3(j)(ii)]
- Prior to approval, the Forest Service should require True Oil to show documented plans that it has the ability to comply with the Wyoming DEQ Air Quality Division's (ozone) interim guidance on NO_x and VOC emission reductions, or the WAQSR Chapter 6, Sec. 2(c)(ii) demonstration for the life of the project.
 - a. Specifically, this means showing that its operations will be zero emissions with an additional 10% reduction in NO_x emissions and 50% reduction in VOCs, or some other DEQ accepted demonstration in compliance with the regulation cited above.
 - b. To document this, True Oil must show signed agreements with other companies/entities operating in Sublette County to: a) purchase needed NO_x and VOC credits banked with the DEQ; b) conduct emissions-reducing activities that will create the necessary off-sets; or c) develop some other documented plan that meets the Chapter 6, Section 2 demonstration, approved by DEQ.
- Project operations must be as close to zero emissions as possible and ROD should require True Oil to meet the following operational standards:
 - a. Tier 4 (or the equivalent) for engines or through use of catalytic converters or natural gas fired engines, for all development phase (well pad, drill rigs, dehydrators, etc.) and production phase (compressors, etc.).
 - b. Any NO_x and VOC emissions (including mobile and non-road engine emissions) have to be offset through documented signed agreement with other Sublette companies using banked NO_x and VOC credits.
 - c. Limits on number of rigs operating at any time. One rig at a time.
 - d. Liquids gathering system and off-site centralized production and collection facility should be required for full field development;
 - e. True Oil must demonstrate its strict compliance with Wyoming oil and gas presumptive BACT requirements;
 - f. Solar equipment when feasible;

¹³ Three years is the required timeline under EPA regulation to determine an air quality trend for non-attainment of air quality standards and is recommended. Several such monitoring sites are already established for the Jonah and Anticline fields.

- g. Green dust suppression on roads and pads; prevention through enforced low speed limits;
- h. Required van carpooling for work force and stringent vehicle traffic limits;
- i. Centralized water storage facility;
- j. Control fugitive emissions through regularly scheduled aggressive leak detection, repair, maintenance and prevention measures, utilizing infrared camera, organic vapor analyzer, ultrasonic leak detectors, etc.
- Additional requirements for drilling phase:
 - a. Green completions to recapture/reduce emissions;
 - b. Strictly no flaring allowed;
 - c. Methane, other greenhouse gas emission and hazardous air pollutants (HAPs) capture;
 - d. Non-toxic, non-diesel based fracking fluids;
 - e. Closed loop waste systems; no waste or produced water disposal on site, no ponds, reservoirs or open pits allowed.
- Additional requirements for production phase:
 - a. Remote telemetry and well automation to monitor and control production;
 - b. Solar power for well monitoring and chemical pumps in place of pneumatic pumps;
 - c. Enclosed tanks with vapor recovery units to recover VOCs;
 - d. Use of and maintenance of thief hatches and vent sealing valves;
 - e. Flash tank separators and optimized glycol circulation in dehydrators;
 - f. Closed loop controls, ultra low sulfur diesel fuel and solar/battery powered supply for compressors;
 - g. Low or no bleed pneumatic devices;
 - h. Install plunger lift systems coupled with “smart” well automation systems;
 - i. Install BASO valves on gas-fired heaters, replace wet seals with dry seals at any centrifugal compressors and replace compressor rod packing systems at any reciprocating compressors.

Human health and safety:

- 1) True Oil should agree to any necessary water well mitigation.
- 2) True Oil should establish an emergency management plan particularly relative to any groundwater contamination event or the release into the air, soil or water of any toxic chemicals.
- 3) True Oil should offer compensation for damages to all land uses and landowner indemnity if operations damage third parties.
- 4) True Oil should establish a vehicle/traffic management plan to limit traffic in the area.
- 5) There should be no long-term storage of chemicals on site and severe limits on short-term storage.
- 6) There should be full public disclosure of chemicals used in drilling and fracking. This information should be posted on a Forest Service website for ease of reference. All monitoring data and regular reports from DEQ and other agencies about results, trends, etc. should be posted regularly to this website.

Reclamation and Adequate Bonding:

The Forest Service should require True Oil to promptly restore all disturbed areas to pre-disturbance conditions and to conduct interim reclamation concurrently with other operations. The Forest Service should require at least five years of reclamation to ensure revegetation efforts are successful.

The Forest Service should determine the sufficiency of the bond amount in the context of the NEPA analysis, and provide a full opportunity for public review and comment. As 36 CFR 228.109(a) requires:

As part of the review of a proposed surface use plan of operations, the authorized Forest officer shall consider the estimated cost to the Forest Service to reclaim those areas that would be disturbed by operations and to restore any lands or surface waters adversely affected by the lease operations after the abandonment or cessation of operations on the lease. If at any time prior to or during the conduct of operations, the authorized Forest officer determines the financial instrument held by the Bureau of Land Management is not adequate to ensure complete and timely reclamation and restoration, the authorized Forest officer shall give the operator the option of either increasing the financial instrument held by the Bureau of Land Management or filing a separate instrument with the Forest Service in the amount deemed adequate by the authorized Forest officer to ensure reclamation and restoration.

In response to a proposed oil well on the Shoshone National Forest this past year, the public advocated that the Forest Service require the operator to submit an increased reclamation bond. The district ranger determined an additional \$65,000 was necessary to cover potential costs should it be necessary. The Bridger-Teton should do a similar analysis.

In conclusion, we appreciate the opportunity to offer scoping comments on True Oil's proposal. We urge the Forest Service to conduct a thorough review and analysis including, but not limited to, the issues we've raised here. A public meeting would aid in the development of issues that should be considered in the Forest Service's environmental analysis, and would benefit citizens, especially ones living nearby. We'd appreciate the opportunity to meet with you about this project at your convenience. Please feel free to contact any of us with questions.

Sincerely,

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