

**U.S. Department of the Interior
Bureau of Land Management**

**Environmental Assessment
DOI-BLM-MT-C030-2016-0205
May 2016**

Proposed Oil Wells

BB Chapin A-151-95-0403H:
BB Chapin A-151-95-0403H-2
BB Chapin A-151-95-0403H-3
BB Chapin A-151-95-0403H-4
BB Chapin A-151-95-0403H-5
BB Chapin A-151-95-0403H-6

McKenzie County, ND

*Applicant/Address: Hess Bakken Investments II, LLC
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CHAPTER 1

INTRODUCTION

INTRODUCTION

This Environmental Assessment (EA) has been prepared by the Bureau of Land Management North Dakota Field Office to analyze Hess Bakken Investments II, LLC (Hess) Applications for Permit to Drill (APDs), including the construction of the well pad, access road, and associated infrastructure. The proposed well locations would be constructed on private (Fee) lands underlain by Fee minerals within McKenzie County, North Dakota (see Appendix A). The well bores would penetrate Fee and Federal minerals through horizontal drilling techniques. The well information is as follows:

<u>Well Identification</u>	<u>Legal Location</u>	<u>1st Penetrated Lease Number</u>
BB Chapin A-151-95-0403H-2	NENE Sec. 5-T151N-R95W	NDM05410
BB Chapin A-151-95-0403H-3	NENE Sec. 5-T151N-R95W	NDM05410
BB Chapin A-151-95-0403H-4	NENE Sec. 5-T151N-R95W	NDM05410
BB Chapin A-151-95-0403H-5	NENE Sec. 5-T151N-R95W	NDM05410
BB Chapin A-151-95-0403H-6	NENE Sec. 5-T151N-R95W	NDM05410

The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any “significant” impacts could result from the analyzed actions. The Bureau of Land Management has prepared the Environmental Analysis to guide the decision to be made whether the Applications for Permit to Drill for the BB Chapin A-151-95-0403H -2, BB Chapin A-151-95-0403H -3, BB Chapin A-151-95-0403H -4, BB Chapin A-151-95-0403H -5, BB Chapin A-151-95-0403H -6, oil and gas wells should be approved or denied.

PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the Proposed Action is for BLM to allow the opportunity for Hess, holder of the affected federal oil and gas lease, to explore and develop it. BLM’s need to respond to the proposal is expressed in regulations and policy. The Mineral Leasing Act of 1920 (MLA) authorizes and directs leasing of public lands for development of natural gas and other minerals (Sec. 13. 30 U.S.C. § 181 et seq.). The Federal Land and Policy Management Act of 1976 (FLPMA) mandates that BLM develop multiple sustainable uses of public lands in concert with land use planning and environmental protection (Sec. 302. 43 U.S.C. 1732). The BLM decision to be made is whether or not to approve the APDs. However, the BLM has little jurisdiction over surface impacts on private lands.

CONFORMANCE WITH LAND USE PLAN

This proposed action is subject to the decisions approved in the North Dakota Resource Management Plan, which was approved on April 22, 1988 and amended September 21, 2015. The plan has been reviewed to ensure that the proposed action is in conformance with the land use plan, terms, and conditions, as required by 43 CFR 1610.5. For reference, see page 9 of the Final RMP/EIS, Oil and Gas Lease Stipulations and Leasing Restrictions. See also, page 10 of the RMP/EIS Desk Document, Oil and Gas Plan Decisions.

SCOPING AND PUBLIC INVOLVMENT AND ISSUES

The operator has provided certification that they have surface owners’ agreements, dated 02/17/2016 and 4/6/2016, for the BB Chapin A-151-95-0403H -2, 3, 4, 5, and 6 well pad and access road. No issues were identified by the surface owners.

NEPA regulations (40 CFR §1500-1508) require that the BLM use a scoping process to identify potential significant issues in preparation for impact analysis. The principal goals of scoping are to support public and BLM-internal participation in order to identify issues, concerns and potential impacts that require detailed analysis. The projects were posted in the front office of the North Dakota Field Office for 30 days. Information was also posted on the BLM e-Planning webpage on 05/12/2016. The EA analyses the proposed actions and discloses potential impacts based upon existing data.

CHAPTER 2 PROPOSED ACTION AND ALTERNATIVES

DESCRIPTION OF PROPOSED ACTION

Well Site Construction – BB Chapin A-151-95-0403H (MWP)

Hess proposes to drill the BB Chapin A-151-95-0403H -2, 3, 4, 5, and 6 oil wells from a single well pad in McKenzie County, ND. Portions of the oil well surface and subsoil materials in the immediate project area would be used for construction of the well pad. Scrapers, bulldozers, road blades and other heavy equipment would be used to remove vegetation and topsoil then stockpiled for interim or final reclamation. A level working surface would be constructed by cutting subsoil from back slopes and pushing it over to fill low areas. New surface disturbance from the construction of the well pad and topsoil stockpile is approximately 20 acres. The largest cut slope is approximately 40.1’ and the largest fill slope is approximately 40.6’ (see Appendix B). The new access road will be approximately 2,850’ in length and have an approximately 200’ construction right-of-way. New surface disturbance from the access road would be approximately 14 acres. Proposed oil and gas gathering pipelines would be located within the road construction disturbance width and connect to existing lines on the existing HA Chapin pad to the northwest.

Table 1: Surface Hole and Bottom Location of the Proposed CCU Atlantic Express 13-19TFH (MWP)

Well Name and Number	Surface Location	Bottom Hole Location	Surface Owner	Well Pad Dimensions	Access Road Length & Width
	T151N, R95W McKenzie Co.	T147N, R95W Dunn Co.			
BB Chapin A: 151-95-0403H-2 151-95-0403H-3 151-95-0403H-4 151-95-0403H-5 151-95-0403H-6	Lot 1, Sec. 5	NE1/4 Sec. 3	Private	630’ x 655’ pad size approx. 20 acres (total within fence disturbance area)	2,850’ x 200’ approx. 14 acres

Well Site Drilling

The drilling operations would start upon receipt of an approved application for permit to drill, and would take approximately 30 days per well after spudding, followed by additional time for well completion and installation of production facilities for each well. The proposed wells would be horizontally drilled with a closed loop system to the Bakken/Three Forks Formation.

<u>Proposed Well</u>	<u>Approximate Measured Depth</u>	<u>Approximate Surface casing (9 5/8”) Depth</u>
BB Chapin A 151-95-0403H-2	21,115’	1,830’
BB Chapin A 151-95-0403H-3	21,137’	1,830’

BB Chapin A 151-95-0403H-4	20,999'	1,830'
BB Chapin A 151-95-0403H-5	21,025'	1,830'
BB Chapin A 151-95-0403H-6	20,931'	1,830'

The surface casing shall be set and cemented back to the surface. The well would then be drilled below the casing. The operator does not anticipate Hydrogen Sulfide gas to be encountered but has submitted an H₂S Contingency Plan for the well. An appropriately sized Blowout Preventer (BOP) would be used to control the well and prevent an accidental release of hydrocarbons or salt water into the environment.

Fresh water based mud system would be used while drilling down to surface casing setting depth, and an invert mud system (oil based) would be used for drilling the remaining vertical section and the horizontal section of the well would use a brine or invert drilling fluid. The well would be fracture stimulated and completed for production if economically recoverable quantities of oil are found.

At the drilling location, drill cuttings would be stored in three sided tanks on location prior to being transported offsite to an approved disposal facility. Disposal of all solids and liquids (drilling fluids/cuttings, produced water, trash, sewage and chemicals) will meet all state, federal and county requirements. Produced fluids would be placed in test tanks on location. A berm would be provided around the test tanks to serve as secondary containment.

The wells would be drilled and completed in full compliance with all applicable laws, regulation (43 CFR 3100), *Onshore Oil and Gas Orders*, the Application for Permit to Drill (APD), and any Conditions of Approval.

Well Site Completion

Bakken/Three Forks wells typically undergo fracture stimulation as part of the well completion process. Fracture stimulation (i.e., hydraulic fracturing or “fracing”) is a process used to maximize the extraction of underground resources by allowing oil or natural gas to move more freely from the rock pores to production wells that brings the oil or gas to the surface. The hydraulically created fracture acts as a conduit in the rock formation, allowing oil or gas to flow more freely through the fracture system, and to the wellbore where the oil or gas is produced to the surface.

To create or enlarge fractures, fluid comprised typically of water and additives is pumped into the productive formation at a gradually increasing rate and pressure. Hydraulic fracturing fluid is approximately 98 percent water and propping agents (proppant), such as sands with the remainder being chemical additives. Chemicals used in stimulation fluids include acids, friction reducers, surfactants, potassium chloride (KCl), gelling agents, scale inhibitors, corrosion inhibitors, antibacterial agents, and pH adjusting agents and typically comprise less than 2% of the total fluid. When the pressure exceeds the rock strength, the fluids create or enlarge fractures that can extend several hundred feet away from the well. As the fractures are created, a propping agent (usually sand) is pumped into the fractures to keep them from closing when the pressure is released. After fracturing is completed, the majority of the injected fracturing fluids returns to the wellbore and is reused or disposed of at an approved disposal facility.

A typical fracture stimulation technique involves 20-30 stages which partition the wellbore into segments which are each separately fracture stimulated. This allows for more efficient use of frac fluid and proppant and a more evenly distributed treatment of the full length of the wellbore. This multi-stage hydraulic fracturing has allowed development of the Bakken/Three Forks formations that was previously uneconomic due to low permeability.

Well Site Production

Production facilities required to operate each oil well include a pumping unit, oil and saltwater tanks, a flare stack, heater treater, recycle pump, metering equipment, small sheds or enclosures, SCADA communications tower and other miscellaneous equipment would also be installed on the leveled working area of the well pad. Production facilities would be spaced according to minimum safe operating distances. All surface facilities would be painted a flat earth-tone color except facilities requiring high-visibility colors for safety. A dike would be constructed completely around the production facilities designed to hold fluids. These dikes would be constructed of compacted subsoil, are impervious, and hold 100% capacity of the largest vessel plus one day production volume.

During the production phase, the operator would reduce the pad size to accommodate only the area that is needed for production. All slopes would be re-contoured to gentler grades, stabilized; topsoil spread, grass seeded and drainage would be established (see Appendix C). Upon well abandonment, the operator would reclaim the well pad and access road as directed by the surface owner.

NO ACTION ALTERNATIVE

Under the No Action Alternative, the proposed well and associated facilities would not be constructed, drilled and installed. The No Action Alternative would not authorize construction of the proposed access road and well pad, nor the drilling, testing and completion of the proposed well.

CHAPTER 3 AFFECTED ENVIRONMENT

While siting and construction of the private well pad and infrastructure is necessary for drilling the Federal well, the decision of where and how to construct and operate the well pad and infrastructure is beyond the BLM's jurisdiction when the well pad will be located on Fee surface underlain by Fee minerals. Because the surface location of this well is located on private land and off of the Federal lease, the requirements for protection of surface resources and mitigation of environmental impacts resulting from locating and constructing the well site would be primarily subject to state or local regulation.

Mandatory Item	Potentially Impacted	No Impact	Not Present On Site
Threatened and Endangered Species			X
Floodplains			X
Wilderness Values			X
ACECs			X
Water Resources		X	
Air Quality	X		
Cultural or Historical Values		X	
Prime or Unique Farmlands			X
Wild & Scenic Rivers			X
Wetland/Riparian			X
Native American Religious Concerns			X
Wastes, Hazardous or Solids			X
Invasive, Nonnative Species	X		
Environmental Justice		X	

The following non-critical resources would not be impacted by this proposed action; therefore, they would not be analyzed in detail by this Environmental Assessment: Fire, Forestry, Geology, Lands/Realty, Recreation, Wetlands, Livestock Grazing, or Ecologically Critical Areas.

Air Quality: The proposed well site and access road are located in a Class II air quality rating area, which is an area that allows moderate degradation above “baseline,” including most of the United States. The air will receive some pollution from the oil and gas activities in the oil field within a few miles radius of the well, including very little hydrogen sulfide gas, some sulfur dioxide gas from venting and flaring activities, and dust particulates from surface-disturbing activities. The nearest Class I air shed is the eastern portion of the North Unit of Theodore Roosevelt National Park, which is approximately 25 miles southwest of the project area. The dominate wind direction in this area is from the northwest.

Cultural Resources: North Dakota is divided into 13 archaeological study units based on areas with similar history, archaeological sites, and environment (SHSND 2016). A study unit provides a broad overview of the cultural history of a given area; and indicates the potential types, and concentration, of cultural sites. The proposed project is located in the Garrison Study Unit (GSU) of northwestern North Dakota. Sites common to the GSU consist primarily of stone circles, cultural material scatters, and miscellaneous stone features. The majority of sites with temporal affiliations date to the Woodland period (400 BC – AD 1200). Most sites are located on ridge and hill land formations.

The project is located on in badlands terrain with large coulees and ridgelines near the Blue Buttes. Site types common to ridge tops and buttes are cultural material scatters, stone circles, and other rock features.

To identify historic properties with the direct and indirect area of potential effects, Class I and III cultural resource inventories were completed for the well pad and access road location. The Class I literature review identified three previously recorded sites and six isolated finds within a one mile radius of the project location. All of the previously recorded cultural resources are located over 2,000 feet from the proposed disturbance areas.

A Class III pedestrian survey of 46 acres was completed on November 27, 2015 and encompassed the well pad and access road. No cultural resources were identified in the survey block or access road.

Hydrology: The proposed well site and access road are located in the sub-basin of the Lake Sakakawea, United States Geological Survey (USGS) Hydrologic Unit (HUC) 10110101. The sub-basin is part of the Missouri Region. All drainage patterns flow towards and into Lake Sakakawea ending at the Garrison Dam. Once released from the dam it flows south into the Missouri river. The project is located on a plateau approximately 10 miles west of Lake Sakakawea.

Wildlife: The majority of McKenzie County lies within the Missouri Slope region of North Dakota and has been largely unaffected glaciation. This region is generally represented by western mixed grass prairie and is typically grazed if it has not been converted by cultivation. The landscape is often dissected by many “woody” draws that are important to many different wildlife species. Prior agricultural conversion areas generally result in cultivation for wheat. In general, wildlife species that may be found utilizing the project area include Mule deer, White-tailed deer, pronghorn, sharp-tailed grouse and numerous migratory birds including – Western Meadowlark, Lark Bunting, Grasshopper Sparrow, Chestnut-collared Longspur, Golden Eagle, Rough legged Hawk and Swainson’s Hawk. The project area does lie within the migratory path of the Endangered Whooping Crane.

CHAPTER 4 ENVIRONMENTAL EFFECTS

PROPOSED ACTION DIRECT AND INDIRECT EFFECTS

Air Quality: Ambient Air Quality Standards (AAQS) may be exceeded for a short time during the pad construction, drilling and completion phases. This would take approximately 60 days per well. Hydrogen sulfide gas (H₂S) may be encountered in the drilling and production phase. The burning or flaring of H₂S results in the release of sulfur dioxide (SO₂). If H₂S or SO₂ were released into the atmosphere AAQS may be exceeded for a short time. There may be a period of increased dust during the pad and road construction phase.

Impacts from SO₂ and H₂S are addressed in the Williston Basin Regional Air Quality Study. This study shows that ambient air quality and PSD Class II air quality are relatively good in the Williston Basin. An operator has the option to flare produced gas for a 30-day period. After that period, the well must be connected to a gas line or the operator must request permanent flaring. The requirement that all produced gas be either captured or flared should mitigate the impacts to air quality due to production operations or well testing. This flaring could be used to mitigate or lessen any impacts that may temporarily exceed local ambient air quality.

Cultural: Class I and III cultural resource inventories were completed for the project location. A cultural resources report was submitted to the BLM NDFO (Project # 16-MT030-38) for review. No known cultural resources have been identified within the direct APE of the project location. Within the indirect APE, two sites, two isolated finds, and one site lead have been identified.

Flaring at the location is not expected to diminish the eligibility of sites within the indirect APE, due to oil and gas development in the region.

Formal consultation letters were sent to the Tribal Historic Preservation Offices of the following tribes: Crow Tribe; Cheyenne River Sioux Tribe; Spirit Lake Tribe; Standing Rock Sioux Tribe; Mandan, Hidatsa, and Arikara Nation; and the Northern Cheyenne Tribe. Copies of the report and the NDFO's assessment of effects were sent on April 13, 2016. No responses have been received as of May 20, 2016.

A formal consultation letter was sent to ND State Historic Preservation Officer on April 13, 2016 with a finding of "No Historic Properties Affected." SHPO's concurrence letter was received on April 22, 2016 (ND SHPO Ref 16-0931). The finding of "No Historic Properties Affected" stands provided the project remains as mapped and described in the associated report.

Hydrology: Using a fresh water mud system and cementing the surface casing string from approximately 1,830 feet back to the surface would protect shallow aquifers, depending on the well bore. Deeper aquifers and potentially productive hydrocarbon zones would be protected through the use of production casing, and cementing. Surface soils would be susceptible to wind and water erosion during road and well pad construction until placement of scoria or gravel. Surface soils would also be susceptible to wind and water erosion in recontoured areas until vegetation is re-established. Erosion from water can be reduced by constructing matting, straw booms/wattles, and berms in the appropriate locations. Erosion rates will return to natural levels once vegetation is reestablished providing living and dead vegetation to protect the soil surface from wind and water. By installing runoff preventive

measures and the presence of sediment filtering vegetation between the construction sites and live waters, effects to surface waters would be nearly unnoticeable.

Wildlife: Approximately 34 acres of both agricultural and native prairie would be altered to construct the well pad, pipelines and access route to the proposed project site. Construction, drilling, production and/or vehicle traffic would result in permanently or temporary displacement of some wildlife species including migratory bird species. Mortality of some relatively small, immobile species may occur as a result of construction. On a landscape basis, new roads and well pads would contribute to additional habitat fragmentation and dispersion of certain wildlife species. A loss of habitat for nesting, foraging, breeding, and cover for those species of wildlife associated with these habitat types would occur during the life of the well, which may include migratory bird species. The proposed project site is not considered prime habitat for whooping crane feeding or roosting. A Dakota Skipper habitat analysis was completed for the project and zero habitats were noted that could potentially harbor skippers. Because of the lack of T & E species in the proposed area, there would be no known adverse effect to any known federally listed T & E wildlife species.

NO ACTION DIRECT AND INDIRECT EFFECTS

Under the no action alternative the BLM would not authorize any construction, drilling or production activities needed for the proposed oil wells to enter and produce from Federal leases. Consequently, there would not be any additional impacts to the environment. However, there would be continuing impacts from existing disturbances from farming, ongoing reclamation, infrastructure construction and installation, and other related surface disturbing activities in the area.

Economics: Under this alternative, if BLM does not approve the APDs, the wells would not be drilled; thus, portions of the federal lease would not be tested, which would result in oil not being produced from the lease. No production from the Federal lease would result in the loss of additional oil being added to the market place, and loss of royalties to the Federal and State governments. An analysis of the oil production in the area indicates an average oil well would produce approximately 500,000 barrels of oil during the life of a well. By choosing this alternative, we would be denying the opportunity to produce approximately 2,500,000 barrels for the nation (500,000 bbls per well, times five wells). The Federal government would receive 12.5% royalty from the share of oil produced from the federal lease and one half of these royalties would return to the state of North Dakota. Also, it is possible that there would be a loss of subsurface information.

CUMULATIVE EFFECTS

Development in the area was analyzed in this environmental assessment using a one-mile radius applied around the proposed well to determine the potential cumulative impact upon the environment. Application of the one-mile radius indicates that there are 25 producing, and/or recently drilled wells present.

The proposed project is located in an area of both perennial and annual vegetation, surrounded by agriculture and grasslands at a much broader scale. The project site and surrounding areas serves as wildlife habitat for a variety of species. The construction of the proposed well pad and access route will impact individual wildlife species but will add negligible stress to the population level; however, the

result of all past actions coupled with this action would increase the extent of stressors on the native fauna within the area.

Cumulative effects from implementing the proposed action are anticipated for air quality for a period of less than five years. If flaring of casing head gas is required to produce this well, there could be long term minor impacts to air for the life of the well (about 20 years). In addition, both short term (<5 years) and long term (>5 years) effects are expected for air, hydrology and wildlife.

Water resources have been impacted by the cumulative effects of activities that occur, including agriculture, mineral exploration and development, and pollution. There would be continuing impacts from existing disturbances from oil wells, ongoing reclamation, construction and other related surface disturbing activities in the area. As a result of the latter existing activities, erosion, sedimentation, and run-off may persist to some degree. These impacts decrease watershed health and water quality.

Over the last 10 years, advances in multi-stage and multi-zone hydraulic fracturing has allowed development of oil and gas fields that previously were uneconomic. These drilling and fracturing completion techniques have resulted in a very large cumulative increase in oil and gas production from the Bakken and Three Forks formations in the Williston basin of North Dakota, Montana, and Canada.

Both existing and future energy development would continue to have direct and indirect habitat impacts. Existing development will continue to affect vegetation growth and seedling growth as a result of mechanical disturbance and possibly the introduction of invasive species into the area. Prairie habitat is increasingly being lost or fragmented in North Dakota. On a landscape scale these small isolated areas of direct and indirect disturbance will further reduce connectivity of wildlife habitats. To prevent additional or limit habitat fragmentation oil companies have proposed to install multiple wells at a single well pad location, accessed by one road. Commercial success at any new well might result in additional oil/gas exploration proposals. Cumulative impacts that are reasonably foreseen from existing and proposed activities include impacts from habitat fragmentation on a landscape scale and impacts from an improved economy for western North Dakota.

CHAPTER 5 TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED

<i>Name/Agency</i>	<i>Authority</i>	<i>Result</i>
The surface owner is listed as private (fee) surface.	BLM requires that the Operator engage the Surface Owner in negotiations for the purpose of obtaining a surface owner agreement or waiver for access.	The operator has provided certification that they have a surface owner's agreement, which was received by the BLM on 02/29/2016 and 05/02/2016.

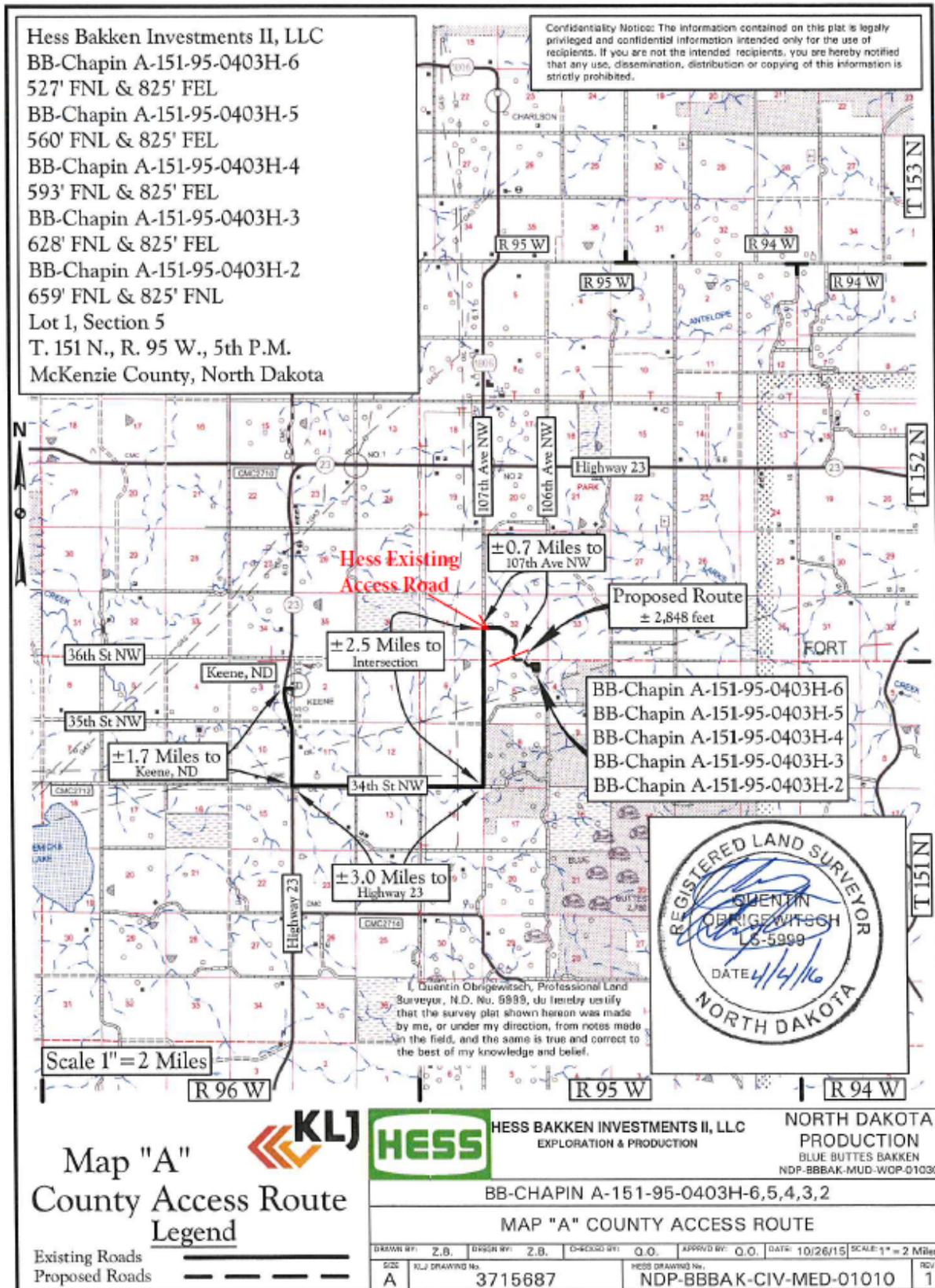
CHAPTER 6 LIST OF PREPARERS

Table 3: List of Preparers			
<i>Name</i>	<i>Title</i>	<i>Responsibilities</i>	<i>Initials / Date</i>
Kristine Braun	NRS	Minerals, Air Quality, Hydrology	<i>KEB 5/20/2016</i>
Tim Zachmeier	Biologist	Wildlife Resources	<i>TPZ 5/12/2016</i>
Paul Kelley	NRS	NEPA Reviewer	<i>PWK 5/26/16</i>
Annette Neubert	Archaeologist	Cultural Resources	<i>AEN 5/20/2016</i>

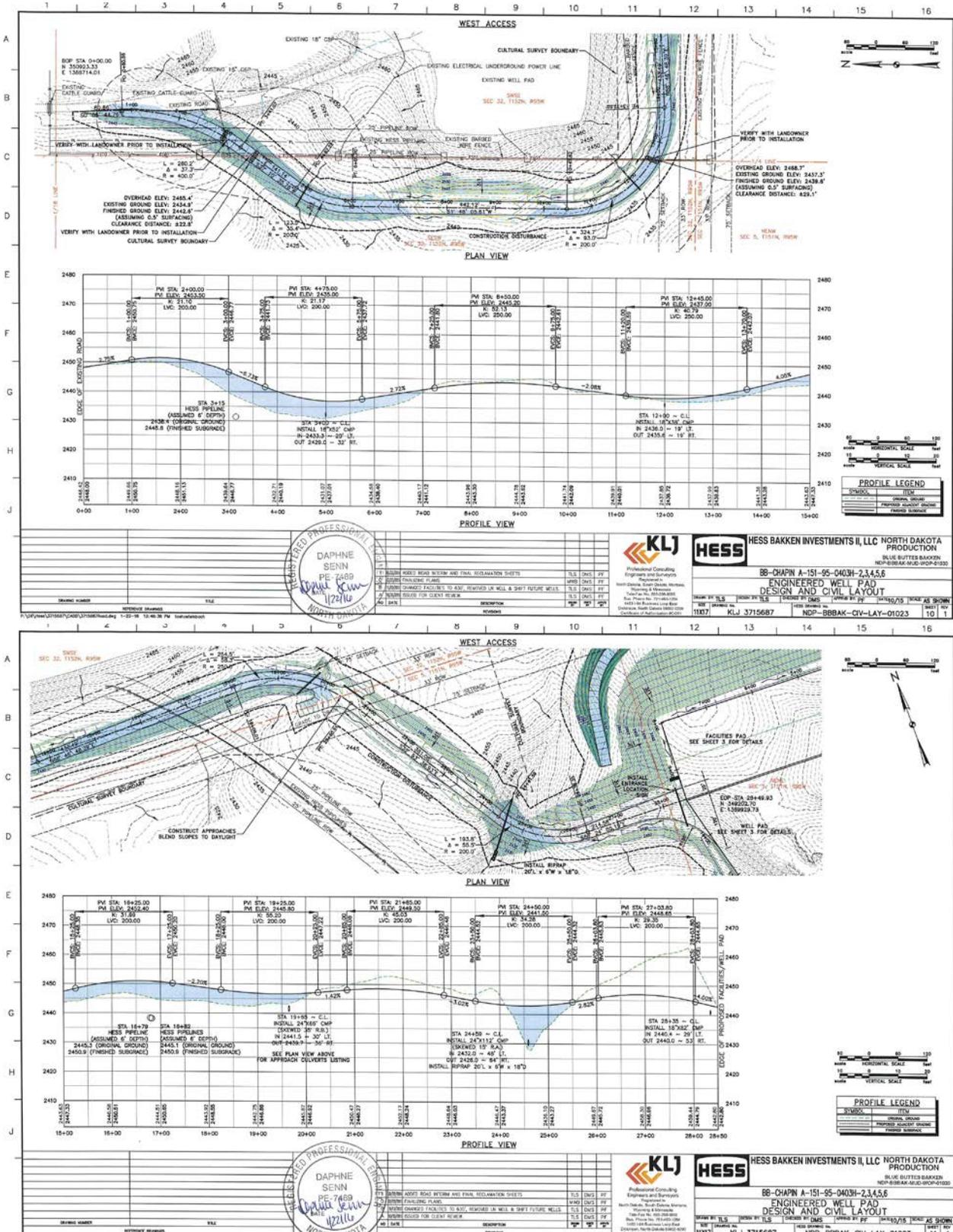
Kathy Bockness
Environmental Coordinator

5/31/2016
Date

Appendix A: Location and Access Map



Appendix B: Road Design Diagram



Appendix E: Gathering Line



BB-CHAPIN A-151-95-0403H-2,3,4,5,6 PROPOSED GATHERING LINE



United States Department of the Interior
Bureau of Land Management

Environmental Assessment DOI-BLM-MT-C030-2016-0205-EA

FINDING OF NO SIGNIFICANT IMPACT

BB Chapin A-151-95-0403H-2
BB Chapin A-151-95-0403H-3
BB Chapin A-151-95-0403H-4
BB Chapin A-151-95-0403H-5
BB Chapin A-151-95-0403H-6

INTRODUCTION

The BB Chapin A-151-95-0403H -2, 3, 4, 5, and 6 oil and gas wells would be drilled from a single well pad and would be drilled into Federal lease NDM05410. The description of the operator proposed action and analysis contained in the EA depicts the proposed wells and the environmental effects available to the BLM at the time of this analysis.

The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any “significant” impacts could result from the analyzed actions.

PLAN CONFORMANCE AND CONSISTENCY:

The proposed action and alternatives have been reviewed and found to be in conformance with the following BLM Land Use Plan and decisions:

The North Dakota Resource Management Plan, approved on April 22, 1988 and amended September 21, 2015, has been reviewed to ensure that the proposed action is in conformance with the land use plan, terms, and conditions, as required by 43 CFR 1610.5. For reference, see page 9 of the Final RMP/EIS, Oil and Gas Lease Stipulations and Leasing Restrictions. See also, page 10 of the RMP/EIS Desk Document, Oil and Gas Plan Decisions.

FINDING OF NO SIGNIFICANT IMPACT:

Based on the analysis of potential environmental impacts contained in the attached environmental assessment, and considering the significance criteria in 40 CFR 1508.27, I have determined that the project is not a major federal action significantly affecting the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity, as defined in 40 CFR 1508.27, and do not exceed those effects described in the North Dakota RMP. Therefore, an environmental impact statement is not needed. This finding is based on the context and intensity of the project as described below.

Context: The project is a site-specific action directly involving approximately 35 acres of disturbance in McKenzie County, North Dakota.

Intensity: The following discussion is organized around the Ten Significance Criteria described in 40 CFR 1508.27 and incorporated into resources and issues considered (includes supplemental authorities Appendix 1 H-1790-1) and supplemental Instruction Memorandum, Acts, regulations and Executive

Orders. The following have been considered in evaluating intensity for this proposal:

- 1. Impacts may be both beneficial and adverse.** The proposed action would impact resources as described in the EA. Mitigation measures to minimize or eliminate adverse impacts were identified in the analysis and will be included as Conditions of Approval with the approved permits. The EA also disclosed beneficial impacts from the proposed project, such as the potential to bring additional oil and gas into the market place and increase revenues to federal and state and local governments, and to obtain scientific data of the local geology, and to increase the knowledge base of the mineral resources potential. None of the environmental effects discussed in detail in the EA exceed those described in the North Dakota RMP.
- 2. The degree to which the selected alternative will affect public health or safety.** The selected alternative minimizes adverse impacts to public health and safety by project design and additional mitigation measures. Implementation of H₂S Safety Measures will be required if H₂S is encountered in excess of 100 ppm in the gas stream, the operator shall immediately ensure control of the well, suspend drilling ahead operations (unless detrimental to well control), and obtain materials and safety equipment to bring the operations into compliance with applicable provisions of Onshore Order No. 6.
- 3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wild and scenic rivers, or ecologically critical areas.** The locations of the proposed well pad and access road have been subject to a cultural resource inventory. The historic and cultural resources of the area have been reviewed by an archeologist and there would be no potential impacts to cultural resources in the design of the proposed action. There are no effects on prime farm lands, wetlands, wild and scenic rivers, or ecologically critical areas.
- 4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.** No unique or appreciable scientific controversy has been identified regarding the effects of the Proposed Action. The environmental analysis did not show any highly controversial effects to the quality of the human environment.
- 5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.** The project is not unique or unusual because BLM and both the States of Montana and of North Dakota have approved similar actions in the same geographic area. The environmental effects to the human environment are analyzed in the environmental assessment. There are no known predicted effects on the human environment that are considered to be highly uncertain or involve unique or unknown risks.
- 6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.** The actions considered in the preferred alternative were considered by the interdisciplinary team within the context of past, present, and reasonably foreseeable future actions. The action would not establish a precedent, since the project area is in a developed oil and gas field.
- 7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.** The interdisciplinary team evaluated the possible actions in context of past, present and reasonably foreseeable actions. The analysis did not disclose any significant cumulative impacts. A disclosure of the effects of the project is contained in the environmental assessment.
- 8. The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause**

loss or destruction of significant scientific, cultural, or historical resources. The project will not affect districts, sites, highways, structures, or other objects listed on or eligible for listing in the National Register of Historic Places, nor would it cause loss or destruction of significant scientific, cultural, or historical resources. Identified cultural resources would be avoided by both well and associated infrastructure and would not be impacted by implementing the mitigation measures listed in the conditions of approval for the project.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973. There are no threatened or endangered species or habitat in the area of the proposed action. There are no threatened or endangered plant species or habitat in the area.

10. Whether the action threatens a violation of a Federal, State, Local, or Tribal law, regulation or policy imposed for the protection of the environment, where non-Federal requirements are consistent with Federal requirements. The project does not violate any known Federal, State, Local or Tribal law or requirement imposed for the protection of the environment. Furthermore, the project is consistent with applicable BLM plans, policies, and programs.

/s/ Allen Ollila

6/1/2016

for: Loren C. Wickstrom
Field Manager

Date

DECISION RECORD

Hess Bakken Investments II, LLC

Proposed Oil Wells

BB Chapin A-151-95-0403H-2

BB Chapin A-151-95-0403H-3

BB Chapin A-151-95-0403H-4

BB Chapin A-151-95-0403H-5

BB Chapin A-151-95-0403H-6

McKenzie County, ND

DOI-BLM-MT-C030-2016-0205

Decision: It is my decision to authorize Hess Bakken Investments II, LLC (Hess) proposed well pad on fee surface overlying fee and federal minerals, drilling directionally to federal leases described in the Environmental Assessment DOI-BLM-MT-C030-2016-0205, and the APDs, with attached Conditions of Approval.

Summary of the Selected Alternative:

This decision includes the following components:

BB Chapin A 151-95-0403H (MWP)

Well Name and Number	Surface Location	Bottom Hole Location	Surface Owner	Well Pad Dimensions	Access Road Length & Width
	T151N, R95W McKenzie Co.	T147N, R95W Dunn Co.			
BB Chapin A: 151-95-0403H-2 151-95-0403H-3 151-95-0403H-4 151-95-0403H-5 151-95-0403H-6	Lot 1, Sec. 5	NE1/4 Sec. 3	Private	630' x 655' approx. 20 acres within fence disturbance	2,850 'x 200' approx. 14 acres

Rationale for the Decision:

The purpose of the Proposed Action is to allow the opportunity for Hess, holder of the affected federal oil and gas lease, to explore and develop it. BLM's need to respond to the proposal is expressed in regulations and policy. The Mineral Leasing Act of 1920 (MLA) authorizes and directs leasing of public lands for development of natural gas and other minerals (Sec. 13. 30 U.S.C. § 181 et seq.) The Federal Land and Policy Management Act of 1976 (FLPMA) mandates that BLM develop multiple sustainable uses of public lands in concert with land use planning and environmental protection (Sec. 302. 43 U.S.C. 1732). The BLM decision to be made is whether or not to approve the five APD's to drill five wells from a single well pad.

The Approval of the Application for Permit to Drill is in conformance with the North Dakota RMP as well as BLM policy and regulations. The above factors and the analysis contained in Environmental

Assessment DOI-BLM-MT-C030-2016-0205 for Hess's proposed oil and gas wells were carefully considered and evaluated. The APDs and all reports were read and the information contained weighed in determining the appropriateness of the decision stated above.

Compliance and Monitoring: BLM will conduct compliance inspections during the different phases of operations. Inspections will be conducted to determine whether or not operations are being conducted in compliance with the approved permit.

Terms/Conditions/Stipulations: The following mitigation measures were analyzed in the EA and are attached below and included as Conditions of Approval.

Appeals:

Under BLM regulation this decision is subject to administrative review in accordance with 43 CFR 3165. Any request for administrative review of the decision must include information required under 43 CFR 3165.3(b) (State Director Review), including all supporting documentation. Such a request must be filed in writing with the State Director, Bureau of Land Management, 5001 Southgate Drive, Billings, Montana 59101 within 20 business days of the date the decision is received, or considered to have been received.

Any party who is adversely affected by the State Director's decision may appeal that decision to the Interior Board of Land Appeals, as provided in 43 CFR 3165.4.

/s/ Allen Ollila
for: Loren C. Wickstrom
Field Manager

6/1/2016
Date

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ATTACHMENT 1

STIPULATIONS / CONDITIONS OF APPROVAL

Applicant/Address: Hess Bakken Investments II, LLC
3015 16th St, SW Suite 20
Minot ND 58701

<u>Well Identification</u>	<u>Legal Location</u>	<u>1st Penetrated Lease Number</u>
BB Chapin A-151-95-0403H-2	Lot 1 Sec. 5-T151N-R95W	NDM05410
BB Chapin A-151-95-0403H-3	Lot 1 Sec. 5-T151N-R95W	NDM05410
BB Chapin A-151-95-0403H-4	Lot 1 Sec. 5-T151N-R95W	NDM05410
BB Chapin A-151-95-0403H-5	Lot 1 Sec. 5-T151N-R95W	NDM05410
BB Chapin A-151-95-0403H-6	Lot 1 Sec. 5-T151N-R95W	NDM05410

CONDITIONS OF APPROVAL

I. CONSTRUCTION AND DRILLING OPERATIONS:

- A. A complete copy of the approved APD, including conditions, stipulations, exhibits, and the H2S contingency plan (if required) must be on the well site and available for reference during the construction and drilling phases.
- B. Notification requirements:
 - 1. Verbally notify this office of the following actions:
 - a. At least 24 hours prior to beginning road and location construction.

BLM representatives can be reached Monday through Friday (8:00AM - 4:30PM) at the office telephone no. (701) 227-7700. The BLM personnel can be contacted after hours or on weekends for plugging approvals or any other approvals/change in plans which do not allow for communications during normal office hours by calling the following personnel.

	<u>Name</u>	<u>Home/Cell Telephone</u>
On Call 24 Hr. Cellular Phone	On-Call	701-290-8220 (c)
Supv Petroleum Engineer Tech.	Don Herauf	701-290-8217 (c)
Natural Resource Specialist	Assigned	701-227-7700 (w)

II. GENERAL REQUIREMENTS

- 1. **Notify the assigned BLM NRS at 701-227-7700 at least 24 hours prior to any construction and reclamation, reshaping the location or road and topsoil spreading.**

2. Any deviation of submitted APD's including the surface use plan, and ROW applications the operator will notify the BLM in writing and will receive written authorization of any such change with appropriate authorization.
3. During drilling, there will be a 2' berm surrounding the invert tanks in the event of a spill.
4. No pit(s) are authorized.
5. Production facilities should be located as close to the well head as practical and placed in a manner that facilitates interim reclamation of the cut and fill slopes (3:1 slopes is optimal) of the well pad. Place production tanks on the "cut" portion of the pad, except where interim reclamation re-contouring would preclude that placement.
6. Load lines must end inside the containment berm and have adequate drip containment catch basins (Murphy Box).
7. The operator must immediately stop work and notify Bureau of Land Management (BLM) if unexpected cultural resources are observed and may not destroy these resources. Disturbance of such discoveries is not allowed until the operator is directed to proceed by BLM.
8. All aboveground facilities must be painted within 6 months of well completion, unless approved otherwise by BLM.
9. Other waste, trash, and chemicals may not be disposed of or burned on location.
10. Saltwater or testing tanks must be located in a contained area and/or diked so that any spilled fluids will be contained. Saltwater and diesel tanks may not be placed on topsoil stockpiles.
11. The operator is responsible for the prevention and suppression of fires, which are caused by their employees, contractors, or subcontractors.
12. The operator is responsible for weed control in the permitted area, including but not limited to access roads, pad and spoil piles.
13. Best Management Practices including matting, tackifiers, straw mulch, and fiber rolls shall be used to aid in prevention of soil erosion. Measures will be taken to maintain topsoil fertility and to prevent topsoil piles from eroding.
14. Flares shall be fitted with a device to prevent oil from emitting into the air or off location.
15. Tank battery: each tank setting, treater, and separator, must be surrounded on all sides by an impermeable dike of sufficient capacity to adequately contain 100% of the contents of the largest vessel within it, plus one (1) day's production.
16. The operator will implement "Safety and Emergency Plan." The operator's safety director will ensure its compliance.

17. All open containers and/or pits which may contain any fluids shall be netted or screened to prevent unwanted wildlife entry. Including but not limited to recycle pump catch basins, secondary chemical containment structures.
18. The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 *et seq.*) prohibits the taking, killing, possession, and transportation (among other actions) of migratory birds, their eggs, parts and nests, except when specifically permitted by regulations. You are required to take all necessary measures practical, between February 1 and July 15 to avoid all “take” during construction, drilling, production and reclamation of this well. If a nesting migratory bird is identified utilizing the proposed project area prior to any construction activity, please notify this office for further guidance.
19. As per the USFWS Standard Conditions and Recommendations, work would cease if whooping crane sightings occur within one mile of the proposed project area. In coordination of the Service, work may resume when the crane(s) have left the area.
20. Heater treater, incinerator and combustor exhaust stacks shall be fitted with an “exhaust cone” to prevent mortality to bats and nesting birds.

III. CONSTRUCTION REQUIREMENTS

1. Grind all woody vegetation on location prior to removing topsoil. Strip the topsoil off the road and pile it in separate piles outside the road ditches. Strip the topsoil off the location and pile it separate from subsoil.
2. The permittee is responsible for locating and protecting existing pipelines, power lines, and telephone lines.
3. The permittee shall protect all public land survey monuments, private property corners, and SMA boundary markers. In the event that any such land markers or monuments are destroyed in the exercise of the privileges authorized by this permit, depending on the type of monument destroyed, the permittee shall reestablish or reference the same in accordance with the following: (1) procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) specifications of the county surveyor, or (3) the specifications of the SMA.
4. All vehicular traffic, personnel movement, construction/restoration operations shall be confined to the area examined and approved, and to the existing roadways and/or evaluated access routes.
5. All operator employees and/or authorized personnel (sub-contractors) in the field shall have approved applicable APD's and ROW permits/authorizations on their person(s) during all phases of construction

IV. RECLAMATION REQUIREMENTS

1. When plugging the well, a steel plate dry hole marker welded to surface casing at least 4 ft. below re-contoured ground is required, and must contain the same information as the well sign as directed by 43 CFR 3162.6 (30 CFR 221.22).

2. When the well is completed, reclaim portions of the access road and well pad not needed for production within 6 months of completion. Re-contour cut and fill slopes, rip compacted subsoil, spread topsoil and reseed during the next spring or fall seeding period.
3. When the well is plugged, the operator must contact BLM for development of the final reclamation plan and for approval of the reclamation work.
4. The native grass seed mix provided below or a seed mix provided by the landowner must be utilized. Grass species need to be premixed prior to drilling and certified weed free seed is required.
 1. Western Wheatgrass 6 lbs. /acre
 2. Green Needle Grass 4 lbs. /acre
 3. Blue Grama 2 lbs./acre
5. Seeding depths need to be ¼” to ¾”, utilizing a drill with 4-6” row spacing. If broadcasting the seed, utilize two times the rates listed in # 2 above and drag it into the soil. Grass drilling shall follow all contours to avoid creating artificial watercourses.
6. All seeding rates will be based on pure live seed (PLS).

V. INFORMATIONAL NOTICE:

The following items are provided for your information and reference.

- A. All submitted information not marked "CONFIDENTIAL INFORMATION" will be available for public inspection upon request. (Note: If a submittal is to be held confidential, each page must be so marked.)
- B. Spills, accidents, fires, injuries, blowout and other undesirable events, as described in NTL MSO-1-92, must be reported to this office within the timeframes in NTL MSO-1-92. See BLM phone list above for contact list in Section B.2. above. Furthermore, all spills (saltwater or oil) or pipeline breaks outside the diked area shall be reported within 24 hours to the Surface Management Agency.
- C. North Dakota State Law number 43-02-03-53 does not allow the use of surface pits for water disposal.
- D. Under Environmental Obligations (43 3162.5-1), Disposition of Production (43 CFR 3162.7-1) and Disposal of Produced Water (Onshore Order No. 7):

You are required to take all necessary steps to prevent any death of a migratory bird in pits or open vessels associated with the drilling, testing, completion, or production of this well. The death of any migratory bird found in such a pit or open vessel is a violation of the Migratory Bird Treaty Act and is considered a criminal act. Any deaths of migratory birds attributable to pits or open vessels associated with drilling, testing, completing, or

production operations must be reported to this office and the United States Fish and Wildlife Service within 24 hours.

VI. PALEONTOLOGICAL/CULTURAL

Paleontological or cultural resource sites will be avoided or mitigated as necessary prior to disturbance. Any cultural or paleontological resource discovered by an Operator or any person working on his/her behalf will be reported immediately to the BLM, and all operations that may further disturb such resources will be suspended until written authorization to proceed is issued by the BLM Authorizing Officer. An evaluation of the discovery will be made by the BLM to determine appropriate actions to prevent the loss of significant resources.