

Attachment 1

**CONDITIONS OF APPROVAL FOR CONVENTIONAL APPLICATION
FOR PERMIT TO DRILL**

**Categorical Exclusion 1 (CX1), Section 390, Energy Policy Act of 2005
Southwestern Production Corporation (Southwestern)
WY-070-390CX1-12-184
Bureau of Land Management, Buffalo Field Office, Wyoming**

Operator: Southwestern Production Corporation

Field Office: Buffalo Field Office
Address: 1425 Fort Street
Buffalo, Wyoming 82834
Office Telephone Number: 307-684-1100

The spud date will be reported electronically, (see website location above) to the Authorized Officer 24 HOURS BEFORE SPUDDING, unless otherwise required in site specific conditions of approval.

Spud Notice Site:
http://www.wy.blm.gov/minerals/og/og_notices/spud_notice.php

List of Wells:

#	Well Name/ Well #	QTR	Sec	TWP	RNG	Lease	CX Number
1	R2 11-21H	NWNW	21	43N	75W	WYW153067	WY-070-390CX1-12-184

Site Specific:

1. The operator will collect a water sample representative of the water produced from this (these) wells for analysis within 30 to 60 days of initial production. Results of the analysis will be submitted to the BLM Authorized Officer as soon as they become available. The constituents analyzed in the water quality analyses will be the same as those required by the WDEQ for WYPDES permit using approved EPA test procedures (40CFR136 or 40CRF136.5).
2. After well completion, the operator shall submit a Sundry Notice for approval of disposal of all produced water in accordance with Onshore Oil and Gas Order No. 7, Disposal of Produced Water.

Drilling and Production Operations

1. **Verbal notification shall be given to the Authorized Officer at least 24 hours before formation tests, BOP tests, running, and cementing casing, and drilling over lease expiration dates.**
2. New hard-band drill pipe shall not be rotated inside any casing. Hard-band drill pipe shall be considered new until it has been run at least once.
3. All Blow Out Prevention Equipment tests shall include a 5 minute low pressure test between 250 psi and 500 psi with no drop in pressure with the only exception being the chokes. The chokes are only required to have the high pressure test held for a minimum length of time necessary to verify their functional integrity.

4. All operations must be conducted in accordance with all applicable laws and regulations: with the lease terms, Onshore Oil and Gas Orders, NTL's; and with other orders and instructions of the Authorized Officer, unless a variance has been granted in writing by the Authorized Officer.
5. The Operator shall install an identification sign consistent with the requirements of 43 CFR 3162.6 immediately upon or before the completion of the well pad construction operations.
6. All Blow Out Prevention Equipment rated 5M or greater shall be isolated from the casing and tested to stack working pressure. All Blow Out Prevention Equipment tests shall be performed by a suitable test pump, not the rig-mud pumps and recorded on a chart. The chart shall be submitted to the Buffalo Field Office.
7. Low test on Blow Out Prevention Equipment shall be performed and passed before moving onto the high test for each component.
8. If there are indications of inadequate primary cementing of the surface, intermediate, or production casing strings; such as but not limited to no returns to surface, cement channeling, fallback or mechanical failure of equipment, the operator will evaluate the adequacy of the cementing operations. This evaluation will consist of running a cement bond log (CBL) or an alternate method approved by the Authorized Officer (AO) no sooner than 12 hours and no later than 24 hours from the time the cement was first pumped.
9. If the evaluation indicates inadequate cementing, the operator shall contact a BLM Buffalo Field Office Petroleum Engineer for approval of remedial cementing work.
10. The adequacy of the remedial cementing operations shall be verified by a cement bond log (CBL) or an alternate method approved by the Authorized Officer (AO). All remedial work shall be completed and verified prior to drilling out the casing shoe or perforating the casing for purposes other than remedial cementing.
11. The cement mix water used must be of adequate quality so as not to degrade the setting properties of the cement. Any water that does not meet municipal quality water standards shall be tested by mixing the water and cement in a lab and comparing the results to the municipal quality water mix results. If the results show that the cement qualities are not the same or greater, than the non-municipal water shall not be used for mixing cement in the well.
12. All oil and gas operations shall be conducted in a manner to prevent the pollution of all freshwater resources. All fresh waters and waters of present or probable future value for domestic, municipal, commercial, stock or agricultural purposes will be confined to their respective strata and shall be adequately protected. Special precautions will be taken to guard against any loss of artesian water from the strata in which it occurs and the contamination of fresh water by objectionable water, oil, condensate, gas or other deleterious substance to such fresh water.
13. Any changes to the approved drilling plan and/or these conditions of approval shall be approved by the BLM-Buffalo Field Office Petroleum Engineer prior to being implemented.
After hour's numbers: Petroleum Engineer: Matthew Warren Cell Telephone: 307-620-0103

Attachment 2

**RECOMMENDED CONDITIONS OF APPROVAL FOR THE APPLICATION FOR PERMIT
TO DRILL**

**Categorical Exclusion 1 (CX1), Section 390, Energy Policy Act of 2005
Southwestern Production Corporation (Southwestern)
WY-070-390CX1-12-184
Bureau of Land Management, Buffalo Field Office, Wyoming**

Operator: Southwestern Production Corporation

Field Office: Buffalo Field Office
Address: 1425 Fort Street
Buffalo, Wyoming 82834
Office Telephone Number: 307-684-1100

The spud date will be reported electronically, (see website location above) to the Authorized Officer 24 HOURS BEFORE SPUDDING, unless otherwise required in site specific conditions of approval.

Spud Notice Site:
http://www.wy.blm.gov/minerals/og/og_notices/spud_notice.php

List of Wells:

#	Well Name/ Well #	QTR	Sec	TWP	RNG	Lease	CX Number
1	R2 11-21H	NWNW	21	43N	75W	WYW153067	WY-070-390CX1-12-184

SITE SPECIFIC

Surface:

1. Southwestern will maintain and keep existing roads in good repair during the entire life of the well. If new access road conditions deteriorate, due to truck traffic and/or adverse weather conditions, the access road will be updated with surfacing.
2. Production facilities will be located on the 44-17 FEE well adjacent to the R2 11-21H.
3. Pits constructed in fill or those used to retain oil base drilling muds, high-density brines, and/or completion or treating fluids must be lined.
4. Oil-base mud use and cuttings pit:
 - a) The mixing of oil-base mud cuttings and water-base mud cuttings is prohibited.
 - b) All oil-base mud cuttings pits shall be lined in accordance with requirements below.
 - i. All pits shall be lined (using synthetic liner or clay liner) with the exception of flare pits; situations where only fresh water, cement, and non-toxic or nonhazardous muds and additives are being used for drilling, completion, and plugging activities, and pits for pneumatic (air) drilling.
 - ii. Synthetic liners must have a thickness of at least 12 millimeters. Synthetic liner material must be compatible with the pit contents, and resistant to weathering, sunlight, and puncturing or tearing. Seams of liners shall be overlapped and welded in accordance with manufacturer's

- requirements. The BLM may require bedding material under the liner be amended or compacted to ensure that the liner is not punctured during the installation or use.
- iii. Clay liners must be compacted to a depth of at least 6 inches and having a hydraulic conductivity of no more than 1×10^{-7} cm/sec.
 - iv. Liners must be bedded upon a suitable substrate that is level, free of organic material, and without rocks or materials that could puncture the liner.
- c) Pits used for the disposal of oil-base muds and cuttings must be solidified in accordance with the Wyoming Oil and Gas Conservation Commission (WOGCC) rules below.
 - i. The BLM will require prior written approval of pit solidification by the BLM and WOGCC, use of a WOGCC-approved pit treatment company, and a copy of the pit closure report.
 - d) The BLM will require the operator to provide the BLM a contingency plan for response to accidental discharge of oil-base mud or cuttings to the reserve pit.

Water:

1. The operator will collect a water sample representative of the water produced from this (these) wells for analysis within 30 to 60 days of initial production. Results of the analysis will be submitted to the BLM Authorized Officer as soon as they become available. The constituents analyzed in the water quality analyses will be the same as those required by the WDEQ for WYPDES permit using approved EPA test procedures (40CFR136 or 40CRF136.5).
2. After well completion, the operator shall submit a Sundry Notice for approval of disposal of all produced water in accordance with Onshore Oil and Gas Order No. 7, Disposal of Produced Water.

Wildlife:

Greater Sage-Grouse (GSG)

The following conditions will alleviate impacts to Greater Sage-Grouse:

1. No surface disturbing activities are permitted during Greater Sage-Grouse breeding and nesting periods (March 15 – June 30), for the R2 11-21H well and all associated infrastructure.
2. For any surface-disturbing activities proposed in sagebrush shrublands, the operator will conduct clearance surveys for Greater Sage-Grouse breeding activity during the Greater Sage-Grouse's breeding season before initiating the activities. The surveys must encompass all sagebrush shrublands within 0.5 miles of the proposed activities.
 - a. This will apply to all approved wells and infrastructure. All survey results shall be submitted in writing to a Buffalo BLM biologist no later than July 31 of the current year. This condition will be implemented on an annual basis for the duration of surface disturbing activities. If a previously unknown lek is identified during surveys (April 1-May 7), a Buffalo BLM biologist shall be notified.

Migratory Birds

1. Migratory birds shall be effectively excluded from all facilities that pose a mortality risk, including, but not limited to, heater treaters, flare stacks, and secondary containment where escape may be difficult or wildlife toxicants are present.

Cultural

1. Per the Programmatic Agreement between the Bureau of Land Management and the Wyoming State Historic Preservation Officer Regarding Mitigation of Adverse Effects to the Pumpkin Buttes Traditional Cultural Property from Anticipated Federal Minerals Development in Campbell County, Wyoming; Stipulations II; Southwestern will instruct all employees, contractors, subcontractors and any additional parties involved with on the ground operations of their project to avoid the Pumpkin Buttes TCP.

2. Per the Programmatic Agreement between the Bureau of Land Management and the Wyoming State Historic Preservation Officer Regarding Mitigation of Adverse Effects to the Pumpkin Buttes Traditional Cultural Property from Anticipated Federal Minerals Development in Campbell County, Wyoming (PA), with Appendix A-G; Southwestern will operate under mitigation measures found in appendices A-G of the PA during all phases (drilling, construction, operation, reclamation, etc.) of all approved wells in the South Butte POD and their associated infrastructure (new surface disturbance to junction with existing disturbance).

STANDARD

General

1. The Companies will locate facilities so that noise from the facilities at any nearby Greater Sage Grouse or sharp-tailed grouse display grounds does not exceed 49 decibels (10 dBA above background noise) at the display ground.
2. The Companies will construct any power lines to minimize the potential for raptor collisions with the lines. Potential modifications include burying the lines, avoiding areas of high avian use (for example, wetlands, prairie dog towns, and grouse leks), and increasing the visibility of the individual conductors.
3. If any cultural values [sites, artifacts, human remains (Appendix L FEIS and ROD)] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. The authorized officer will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized BLM officer (AO). Within five working days the AO will inform the operator as to:
 - whether the materials appear eligible for the National Register of Historic Places;
 - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
 - a time-frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.
4. If paleontological resources, either large or conspicuous, and/or a significant scientific value are discovered during construction, the find will be reported to the Authorized Officer immediately. Construction will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant scientific interest discovered during the operation.
5. Please contact Dustin Hill, Natural Resource Specialist, at (307) 684-1100, Bureau of Land Management, Buffalo, if there are any questions concerning the following surface use COAs.

Construction

1. Construction and drilling activity will not be conducted using frozen or saturated soil material during periods when watershed damage or excessive rutting is likely to occur.
2. Remove all available topsoil (depths vary from 4 inches on ridges to 12+ inches in bottoms) from constructed well locations including areas of cut and fill, and stockpile at the site. Topsoil will also be salvaged for use in reclamation on all other areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. Any topsoil stockpiled for one year or longer will be signed and stabilized with annual ryegrass or other suitable cover crop.
3. The operator will not push soil material and overburden over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved without creating additional undue surface disturbance and where it does not impede watershed and drainage flows.
4. Construct the backslope no steeper than 3:1, and construct the foreslope no steeper than 2:1, unless otherwise directed by the BLM Authorized Officer.
5. Maintain a minimum 20-foot undisturbed vegetative buffer between toe-of-fill of pad and/or pit areas and the edge of adjacent drainages, unless otherwise directed by the BLM Authorized Officer.
6. All overhead electrical power lines on federal surface will be constructed to the Avian Power Line Interaction Committee (2005, 2006) standards to minimize electrocution potential to birds of prey.
7. Culverts will be placed on channel bottoms on firm, uniform beds, which have been shaped to accept them, and aligned parallel to the channel to minimize erosion. Backfill will be thoroughly compacted.
8. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.
9. Construction and other project-related traffic will be restricted to approved routes. Cross-country vehicle travel will not be allowed.
10. Maximum design speed on all operator constructed and maintained roads will not exceed 25 miles per hour.
11. Pipeline construction shall not block nor change the natural course of any drainage. Pipelines shall cross perpendicular to drainages. Pipelines shall not be run parallel in drainage bottoms. Suspended pipelines shall provide adequate clearance for maximum runoff.
12. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.
13. During construction, emissions of particulate matter from well pad and road construction would be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on unpaved roads that present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
14. Operators are required to obtain a National Pollution Discharge Elimination System (NPDES) Storm Water Permit from the Wyoming DEQ for any projects that disturb five or more acres (changing to one acre in March 2005). This general construction storm water permit must be obtained from WDEQ

prior to any surface disturbing activities and can be obtained by following directions on the WDEQ website at <http://deq.state.wy.us>. Further information can be obtained by contacting Barb Sahl at (307) 777-7570.

15. The operator shall submit a Sundry Notice (Form 3160-5) to BLM for approval prior to construction of any new surface disturbing activities that are not specifically addressed in the approved APD or POD Surface Use Plan.

Operations/Maintenance

1. Confine all equipment and vehicles to the access road(s), pad(s), and area(s) specified in the approved APD or POD.
2. All waste, other than human waste and drilling fluids, will be contained in a portable trash cage. This waste will be transported to a State approved waste disposal site immediately upon completion of drilling operations. No trash or empty barrels will be placed in the reserve pit or buried on location. All state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.
3. Rat and mouse holes shall be filled and compacted from the bottom to the top immediately upon release of the drilling rig from the location.
4. The operator will be responsible for prevention and control of noxious weeds and weeds of concern on all areas of surface disturbance associated with this project (well locations, roads, water management facilities, etc.) Use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of Interior. Prior to the use of pesticides on public land, the holder shall obtain from the BLM authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer to such use.
5. All permanent above-ground structures (e.g. , production equipment, tanks, etc.) not subject to safety requirements will be painted to blend with the natural color of the landscape. The paint used will be a color which simulates "Standard Environmental Colors." The color selected for this POD is Covert Green.
6. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.
7. The operator and their contractors shall ensure that all use, production, storage, transport, and disposal of hazardous and extremely hazardous materials associated with the drilling, completion and production of this well will be in accordance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines. All project-related activities involving hazardous materials will be conducted in a manner to minimize potential environmental impacts. In accordance with OSHA requirements, a file will be maintained onsite containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds and/or substances which are used in the course of construction, drilling, completion and production operations.
8. Produced fluids shall be put in test tanks on location during completion work. Produced water will be put in the reserve pit during completion work per Onshore Order #7.
9. The only fluids/waste materials which are authorized to go into the reserve pit are RCRA exempt exploration and production wastes. These include:

- drilling muds & cuttings
- rigwash
- excess cement and certain completion & stimulation fluids defined by EPA as exempt

It does not include drilling rig waste, such as:

- spent hydraulic fluids
- used engine oil
- used oil filter
- empty cement, drilling mud, or other product sacks
- empty paint, pipe dope, chemical or other product containers
- excess chemicals or chemical rinsate

Any evidence of non-exempt wastes being put into the reserve pit may result in the BLM Authorized Officer requiring specific testing and closure requirements.

10. Operators are advised that prior to installation of any oil and gas well production equipment which has the potential to emit air contaminants, the owner or operator of the equipment must notify the Wyoming Department of Environmental Quality, Air Quality Division (phone 307-777-7391) to determine permit requirements. Examples of pertinent well production equipment include fuel-fired equipment (e.g., diesel generators), separators, storage tanks, engines and dehydrators.

DryHole/Reclamation

1. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc., will be expediently reclaimed and reseeded in accordance with the surface use plan and any pertinent site-specific COAs.
2. Disturbed lands will be recontoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds.
3. The fluids and mud must be dry in the reserve pit before recontouring pit area. The operator will be responsible for recontouring of any subsidence areas that develop from closing a pit before it is completely dry. The plastic pit liner (if any) will be cut off below grade and properly disposed of at a state authorized landfill before beginning to recontour the site.
4. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling platform and access road on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.
5. Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking following the contour.
6. Waterbars are to be constructed at least one (1) foot deep, on the contour with approximately two (2) feet of drop per 100 feet of waterbar to ensure drainage, and extended into established vegetation. All waterbars are to be constructed with the berm on the downhill side to prevent the soft material from silting in the trench. The initial waterbar should be constructed at the top of the backslope. Subsequent waterbars should follow the following general spacing guidelines:

<u>Slope (percent)</u>	<u>Spacing Interval (feet)</u>
less than 2	200
2 – 4	100
4 – 5	75
greater than 5	50

- The operator will drill seed on the contour to an average depth of 0.5 inch, followed by cultipaction to compact the seedbed, preventing soil and seed losses. To maintain quality and purity, the current years tested, certified seed with a minimum germination rate of 80% and a minimum purity of 90% will be used. On BLM surface or in lieu of a different specific mix desired by the surface owner, use the following:

**10-14” Precipitation Zone
Loamy Ecological Site**

Seed Mix

Species	% in Mix	Lbs PLS*
<i>Western Wheatgrass</i> (Pascopyrum smithii)	40	4.8
<i>Bluebunch Wheatgrass</i> (Pseudoroegneria spicata ssp. Spicata)	10	1.2
<i>Green needlegrass</i> (Nassella viridula)	25	3.0
<i>Thickspike Wheatgrass</i> (Elymus lanceolatus ssp. lanceolatus)	10	1.2
<i>Prairie coneflower</i> (Ratibida columnifera)	5	0.6
<i>White or purple prairie clover</i> (Dalea candidum, purpureum)	5	0.6
<i>Scarlet Globemallow</i> (Sphaeralcea coccinea) / or <i>Blue flax</i> (Linum lewisii)	5	0.6
Totals	100%	12 lbs/acre

*PLS = pure live seed

*Northern Plains adapted species

*Double this rate if broadcast seeding

This is a recommended seed mix based on the native plant species listed in the NRCS Ecological Site descriptions, U.W. College of Ag., and seed market availability. A site-specific inventory will allow the resource specialist to suggest the most appropriate species, percent composition, and seeding rate for reclamation purposes.

- BLM will not release the performance bond until the area has been successfully revegetated (evaluation will be made after the second complete growing season) and has met all other reclamation goals of the surface owner and surface management agency.
- The operator must submit a Notice of Intent to Abandon and a Subsequent Report of Abandonment for abandonment approval.
- For performance bond release approval, a Final Abandonment Notice (with a surface owner release letter on split-estate) must be submitted prior to a final abandonment evaluation by BLM.

11. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
12. Any mulch utilized for reclamation needs to be certified weed free.

Producing Well

1. Landscape those areas not required for production to the surrounding topography as soon as possible. The fluids and mud must be dry in the reserve pit before recontouring pit area. The operator will be responsible for recontouring and reseeding of any subsidence areas that develop from closing a pit before it is completely dry.
2. Reduce the backslope to 2:1 and the foreslope to 3:1, unless otherwise directed by the BLM Authorized Officer. Reduce slopes by pulling fill material up from foreslope into the toe of cut slopes.
3. Production facilities (including dikes) must be placed on the cut portion of the location and a minimum of 15 feet from the toe of the back cut unless otherwise approved by the BLM Authorized Officer.
4. A dike will be constructed completely around the production facilities (i.e. production tanks, water tanks, and heater-treater). The dikes for the production facilities must be constructed of impermeable soil, hold 110% of the capacity of the largest tank plus 1-foot of freeboard, and be independent of the back cut.
5. Any chemicals used in treating the wells (e.g., corrosion inhibitor, emulsion breaker, etc.) will be in a secure, fenced-in area with appropriate secondary containment structure (dikes, catchment pan, etc.).
6. The load out line coming from the oil/condensate tank(s) will have a suitable containment structure to capture and recycle any oil spillage that might occur.
7. Individual production facilities (tanks, treaters, etc.) will be adequately fenced off (if entire facility not already fenced off).
8. Any spilled or leaked oil, produced water or treatment chemicals must be reported in accordance with NTL-3A and immediately cleaned up in accordance with BLM requirements. This includes clean-up and proper disposition of soils contaminated as a result of such spills/leaks.
9. Distribute stockpiled topsoil evenly over those areas not required for production and reseed as recommended.
10. Upgrade and maintain access roads and drainage control (e.g., culverts, drainage dips, ditching, crowning, surfacing, etc.) as necessary and as directed by the BLM Authorized Officer to prevent soil erosion and accommodate safe, environmentally-sound access.
11. Prior to construction of production facilities not specifically addressed in the APD/POD, the operator shall submit a Sundry Notice to the BLM Authorized Officer for approval.
12. If not already required prior to constructing and drilling the well location, the operator shall immediately upgrade the entire access road to BLM standards (including topsoiling, crowning, ditching, drainage culverts, surfacing, etc.) to ensure safe, environmentally-sound, year-round access.
13. Waterbars shall be installed on all reclaimed pipeline corridors.

Attachment 3

**PROGRAMMATIC AGREEMENT
BETWEEN
THE BUREAU OF LAND MANAGEMENT
AND THE WYOMING STATE HISTORIC PRESERVATION OFFICER
REGARDING MITIGATION OF ADVERSE EFFECTS TO THE PUMPKIN BUTTES TRADITIONAL
CULTURAL PROPERTY FROM ANTICIPATED FEDERAL MINERALS DEVELOPMENT
CAMPBELL COUNTY, WYOMING**

WHEREAS, Federal oil and gas leaseholders have submitted numerous applications to drill oil and gas wells and construct infrastructure corridors, access roads and associated facilities on federally owned subsurface minerals overlain by private surface lands in the vicinity of the Pumpkin Buttes Traditional Cultural Property; and

WHEREAS, Federal uranium leaseholders will submit plans of operation to construct in-situ uranium wells, infrastructure corridors, access roads and associated facilities on federally owned subsurface minerals overlain by private surface lands in the vicinity of the Pumpkin Buttes Traditional Cultural Property; and

WHEREAS, the BLM has determined that the development of oil, gas and in-situ uranium wells, infrastructure corridors, access roads and other facilities are assumed to have an adverse effect to the contributing integrity of setting, feeling and association for the Pumpkin Buttes Traditional Cultural Property determined eligible for listing in the National Register of Historic Places under Criteria “a” and “b” where the full extent of that disturbance is not known; and

WHEREAS, the BLM has consulted with the Wyoming State Historic Preservation Officer (SHPO) pursuant to the State Protocol between the Wyoming BLM State Director and the Wyoming State Historic Preservation Officer; and

WHEREAS, this undertaking does not meet thresholds for review by the Advisory Council on Historic Preservation identified in the *Programmatic Agreement Among the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Manner in which BLM Will Meet its Responsibilities Under the National Historic Preservation Act (1997)* “Hereinafter “National Programmatic Agreement”; and

WHEREAS, the BLM invited the Blackfeet, Cheyenne River Sioux, Crow, Eastern Shoshone, Fort Peck, Mandan, Hidatsa and Arikara Nation, Northern Arapaho, Northern Cheyenne and Oglala tribes to participate in consultation and to be consulting parties for the resolution of adverse effects to the Pumpkin Buttes, but the tribes chose not to officially comment on this agreement; and

WHEREAS, the National Programmatic Agreement, STATE PROTOCOL Between the Wyoming BLM State Director and the Wyoming State Historic Preservation Officer (hereinafter “State Protocol”), executed on March 8, 2006, is incorporated herein by reference; and

WHEREAS, the State of Wyoming and the SHPO do not waive their sovereign immunity by entering into this PA, and each fully retains all immunities and defenses provided by law with respect to any action based on or occurring as a result of this PA;

WHEREAS, there are existing Memoranda of Agreement resolving adverse effects to the Pumpkin Buttes TCP from the Dry Willow I POD and the Savageton 3 and 4 POD, and these agreements will not be altered upon the signature of this document;

NOW, THEREFORE, BLM and SHPO agree that construction of all energy development related federal undertakings within two miles of the Pumpkin Buttes Traditional Cultural Property shall be implemented in accordance with the following stipulations in order to take into account the effects these projects will have on the Pumpkin Buttes Traditional Cultural Property.

STIPULATIONS

The BLM shall ensure that the following mitigation measures are implemented:

I. Discoveries

- A. If any cultural materials are discovered during construction, work in the area shall halt immediately, the BLM must be contacted, and the materials evaluated by a BLM-permitted archaeologist. Work may not resume until authorized by the BLM.
- B. If Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony are encountered as a result of a BLM undertaking on BLM surface, the BLM will comply with Section 3 of the Native American Graves Protection and Repatriation ACT (NAGPRA) and its implementing regulations at 43 CFR Part 10. If Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony are encountered as a result of a BLM undertaking on private surface, the remains will be evaluated as a historic property and procedures outlined in the State Protocol relating to identification and effect will be followed. Existing state and local laws will be followed pertaining to the discovery of Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony on private surface. The Powder River Basin Oil and Gas Project Final Environmental Impact Statement Standard Condition of Approval (General)(A)(1) regarding accidental discovery will apply to any coalbed methane POD related undertaking.

II. Inadvertent Effects

All operators who are issued energy related permits under this PA will instruct all employees, contractors, subcontractors and any additional parties involved with on the ground operations of their projects to avoid the Pumpkin Buttes TCP. A condition of approval will be written for each POD that will specifically instruct the operator to avoid the TCP.

III. Site Specific Mitigation

A. Mitigation measures that a project submitted to BFO by energy related permit applicants must adhere to in order to operate under this PA are located in the Appendices portion of this document. If the applicant can design their project to meet the mitigations and COA's described in this PA, full consultation between the BLM, SHPO, and tribes will not be necessary. BLM will notify the SHPO and tribes that the project meets the requirements of this PA before BLM issuance of the federal minerals development related permit. If the project cannot be modified to meet the mitigation measures outlined in this agreement, BLM will consult with the SHPO as outlined in the State Protocol.

B. No development will occur on the tops or side of the buttes. The Pumpkin Buttes' tops and bases are defined as follows, based on 1:24,000 USGS Topographic Quadrangles for the area:

North Butte:	top = 6,020 foot contour line, base = 5,280
North Middle Butte:	top = 6,000 foot contour line, base = 5,500
South Middle and Indian Buttes:	top = 5,920 foot contour line, base = 5,500
South Butte:	top = 5,960 foot contour line, base = 5,580

C. For all activities associated with any future project modification of the federal undertaking, the operator must obtain authorization from the BLM before ground disturbance can take place. The operator and the BLM may implement measures to reduce the visual contrast for any changes to the project. If the project cannot be modified to meet the mitigation measures outlined in this agreement, BLM will consult with the SHPO as outlined in the State Protocol.

D. Prior to the BLM authorization of additional construction activities, the operator will:

- 1. Perform a Class III cultural resource inventory, biological, and/or other inventory, as required;
Submit detailed construction plans including site-specific applications (as in a Plan of Development);

2. Submit detailed construction plans including site-specific applications (as in a Plan of Development);
and
3. Participate in an on-site evaluation.

E. Management practices for the operator will adhere to all conditions included with the leases in addition to all federal and state laws and regulations. According to BLM IM No. 2004-194, best management practices shall be considered in nearly all circumstances. Mitigation measures incorporating standard measures to reduce visual contrast are included in the appendices.

IV. Dispute Resolution

- A. If there is an objection by any Signatory to the manner in which the terms of this PA are implemented, the objecting Signatory will notify the Field Manager in writing of the objection. The Field Manager will notify all other Signatories of the objection. All Signatories will consult to resolve the objection.
- B. Resolution of the objection will be documented in a written amendment to this PA to be signed by all Signatories. If a Signatory fails to respond within 30 days of receipt of the written amendment, concurrence with the amendment will be assumed by other Signatories and the amendment will go into effect. If resolution of the objection does not require amendment to the PA, this decision will be documented in writing and provided to all Signatories.
- C. If the objection cannot be resolved among the Signatories, the matter shall be referred to the BLM State Director. The BLM State Director may consult with the BLM Preservation Board on the matter. The BLM State Director will notify all Signatories and Concurring Parties of the recommendations of the BLM Preservation Board. Within 15 days of notification, any Signatory may request consultation among all Signatories regarding the recommendations of the BLM Preservation Board. The final decision for resolution of the objection by any Signatory shall be made by the BLM State Director.
- D. The BLM Field Manager shall consider non-signatory objections to the manner in which the terms of the PA are implemented. If the objection cannot be resolved to the satisfaction of the BLM and the objecting party, the BLM Field Manager shall request the Signatories to provide their opinion on the matter. Prior to making a final decision on the matter, the BLM Field Manager shall take into account all the Signatory opinions received within 15 days of the request.
- E. Nothing in this Section shall be construed or interpreted as a waiver of any judicial remedy that would be available to any party to this PA.

V. Amendment

Any Signatory to this agreement may request that the other Signatories consider amending it if circumstances change over time and/or warrant revision of this PA. Except in the case of amendments addressing resolution of disputes pursuant to Section IV of this PA, amendments shall be executed in writing and shall be signed by all signatories in the same manner as the original PA.

VI. Annual Report and Review

- A. In concurrence with the annual State Protocol report, the Buffalo Field Office shall prepare and provide an annual report detailing how the applicable terms of the PA are being implemented. The report will include an assessment of the effectiveness of reclamation practices described in Appendix A of this PA. The report will also suggest additional work that may be needed in order to better meet reclamation goals.
- B. The Buffalo Field Office shall provide a copy of the annual report to all signatories to this PA. The Buffalo Field Office will also provide to all signatories the opportunity to provide comment on the annual report.

VII. Termination

- A. Any Signatory to this PA may initiate termination by providing written notice to the other parties of their intent. After notification by the initiating Signatory, the remaining Signatories shall have 60 business days to consult to seek agreement on amendments or any other actions that would address the issues and avoid termination. If such consultation fails, the termination will go into effect at the end of the 60-day period, unless all the Signatories agree to a longer period.
- B. In the event of termination, the BLM shall refer to the Wyoming State Protocol to address any remaining adverse effects to historic properties treated under this agreement.

VIII. Sunset Terms

- A. This PA will remain in effect for 5 years.
- B. The BLM will ensure the PA will be reevaluated every year by all Signatories, or until the Agreement has been terminated or fully complied with.

General Provisions

- A. **Entirety of Agreement.** This PA, consisting of fourteen pages including appendices A through G represents the entire and integrated agreement between the parties and supersedes all prior negotiations, representations and agreements, whether written or oral.
- B. **Prior Approval.** This PA shall not be binding upon any party unless this PA has been reduced to writing and signed by all Signatories before performance begins as described under the terms of this PA.
- C. **Severability.** Should any portion of this PA be judicially determined to be illegal or unenforceable, the remainder of the PA shall continue in full force and effect, and any party may renegotiate the terms affected by the severance.

Execution of this Memorandum of Agreement and implementation of its terms is evidence that the BLM has taken into account the effects of future federal minerals related development on the setting of the Pumpkin Buttes TCP..

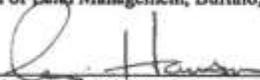
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Signatures. In witness whereof, the parties to this PA through their duly authorized representatives have executed this PA on the days and dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this PA as set forth herein.

The effective date of this PA is the date of the last signature affixed to this page.

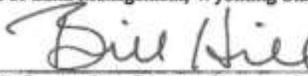
SIGNATORIES

Bureau of Land Management, Buffalo, Wyoming Field Office


Chris Hanson, Field Manager

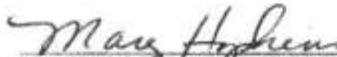
Date 1/23/09

Bureau of Land Management, Wyoming State Office


Bill Hill, Deputy State Director, Resource Policy and Management

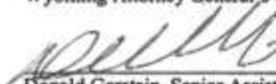
Date 1/28/09

Wyoming State Historic Preservation Office


Mary Hopkins, Interim State Historic Preservation Officer

Date 2/5/09

Wyoming Attorney General's Office

 #27726
Donald Gerstein, Senior Assistant Attorney General

Date 2/4/09

PROGRAMMATIC AGREEMENT
BETWEEN
THE BUREAU OF LAND MANAGEMENT
AND THE WYOMING STATE HISTORIC PRESERVATION OFFICER
REGARDING MITIGATION OF ADVERSE EFFECTS TO THE PUMPKIN BUTTES TRADITIONAL CULTURAL PROPERTY
FROM ANTICIPATED FEDERAL MINERALS DEVELOPMENT
CAMPBELL COUNTY, WYOMING

APPENDIX A
SITE SPECIFIC MITIGATION MEASURES TO ADDRESS SURFACE RECLAMATION

A. The operator will follow the guidance provided in the Wyoming Policy on Reclamation (IM WY-90-231) specifically the following:

1. The reclaimed area shall be stable and exhibit none of the following characteristics:
 - a. Large rills or gullies.
 - b. Perceptible soil movement or head cutting in drainages.
 - c. Slope instability on, or adjacent to, the reclaimed area in question.
2. The soil surface must be stable and have adequate surface roughness to reduce runoff and capture rainfall and snow melt. Additional short-term measures, such as the application of mulch, shall be used to reduce surface soil movement.
3. Vegetation canopy cover (on unforested sites), production and species diversity (including shrubs) shall approximate the surrounding undisturbed area. The vegetation shall stabilize the site and support the planned post disturbance land use, provide for natural plant community succession and development, and be capable of renewing itself. This shall be demonstrated by:
 - a. Successful onsite establishment of species included in the planting mixture or other desirable species.
 - b. Evidence of vegetation reproduction, either spreading by rhizomatous species or seed production.
4. The reclaimed landscape shall have characteristics that approximate the visual quality of the adjacent area with regard to location, scale, shape, color and orientation of major landscape features.

B. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc. will be expediently reclaimed and reseeded in accordance with the surface use plan and any pertinent site-specific Conditions of Approval (COAs).

Areas not needed for production operations will be reshaped to approximate original contour of adjacent undisturbed surface. Topsoil will be spread evenly over reclaimed areas and drill seeded.

Disturbed areas will be drill seeded on the contour to a depth of 0.5 inch, followed by cultipaction to compact the seed preventing soil and seed losses. To maintain quality and purity, the current year's tested, certified seed with a minimum germination rate of 80% and a minimum purity of 90% will be used.

Slopes too steep for machinery may be hand broadcast and raked with twice the specified amount of seed. Fall seeding will occur after September 15 and prior to prolonged ground frost. To be effective, spring seeding will occur after the frost has left the ground and prior to May 15, unless prohibited by other stipulations preventing operations during these times, such as stipulations to protect wildlife habitat.

APPENDIX B
SITE SPECIFIC MITIGATION MEASURES TO ADDRESS ACCESS ROADS

Wherever possible, existing roads will be utilized. Two types of roads may be constructed for energy related projects within 2 miles of the Pumpkin Buttes:

- a. BLM temporary roads defined as two-track roads with minor upgrades (including installation of underground utilities associated with production), and
- b. BLM resource roads which are surfaced and provide all-season access (including the installation of underground utilities associated with production).

In general, temporary roads will be single-lane roads with minimal disturbance. They are intended for dry weather use and will be returned to a near natural condition upon completion of use. The running surface for temporary roads will not exceed 12 feet. Total width of disturbance for temporary roads including utility lines (see Appendix C) will be limited to 20 feet in level areas and 32 feet in areas with side slopes.

The running surface of BLM resource roads will not exceed 16 feet. The gravel surface of resource roads must be a color that does not create a visual contrast with the surrounding topography. The width of total disturbance for resource roads will not exceed 40 feet (including buried utility lines) unless specific road designs indicate otherwise and the wider disturbance area does not create more than a moderate visual contrast.

In order to minimize visual contrast, pipelines are to be coridored immediately next to or within roads (see Appendix C). Where possible, roads will be placed outside areas containing dense patches of sagebrush to avoid visual contrast. All roads should follow natural contours, rather than creating straight lines.

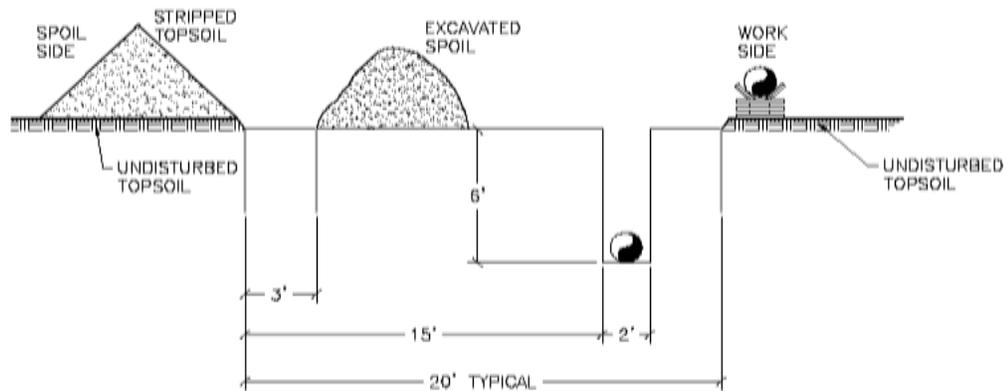
**APPENDIX C
SITE SPECIFIC MITIGATION MEASURES TO ADDRESS GATHERING PIPELINES**

Within two miles of the Pumpkin Buttes, all energy projects with associated gathering pipelines will be corriedored next to or within roads, wherever possible. Existing disturbance should be used for pipeline corridors where possible.

To install utilities, trenching must be performed and thus the topsoil will be disturbed at each location. The typical width of disturbance on level ground is 20 feet, and on side slopes, 32 feet, for temporary roads. These disturbance areas are dual purpose, allowing the installation of roads and construction of pipelines. Operators may perform the initial grading for the pipeline prior to drill rig access and subsequently install the pipeline on a site-specific basis.

Figure 1 demonstrates the typical pipeline installation process on level ground. Topsoil from a typical width of 20 feet is salvaged and placed on the non-working side of the corridor for later reclamation. A trench is then excavated and spoil is placed on the non-working side but segregated from the topsoil. On the working side of the corridor, pipe fusion activities, equipment travel, and utility installation occurs on the undisturbed ground as long as the remaining topsoil is undamaged. There will be instances on the working side where small areas of ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the utilities are installed, spoil is placed back into the trench and the topsoil is redistributed over the disturbed corridor before reseeding.

Figure 1: Typical Pipeline Construction for Level Ground



In order to safely operate trenching equipment, the ground should be level. Figure 2 demonstrates the typical pipeline installation process in a side hill situation. Topsoil from a typical width of 32 feet is salvaged and placed on the non-working side of the corridor for later reclamation. Before trenching, a level travel way is cut into the side slope – balancing the cut to the downhill fill. Spoil is again placed on the non-working side with the topsoil and work activities occurring on the opposite side of the corridor on the leveled surface. When work is completed, the trench is filled and the ground is contoured back as close to original as possible before topsoil is redistributed and the ground is reseeded.

**APPENDIX C
PROGRAMMATIC AGREEMENT
BETWEEN
THE BUREAU OF LAND MANAGEMENT
AND THE WYOMING STATE HISTORIC PRESERVATION OFFICER
REGARDING MITIGATION OF ADVERSE EFFECTS TO THE PUMPKIN BUTTES TRADITIONAL CULTURAL PROPERTY
FROM ANTICIPATED FEDERAL MINERALS DEVELOPMENT**

APPENDIX D
SITE SPECIFIC MITIGATION MEASURES TO ADDRESS WELL LOCATIONS

- A. Coalbed Methane Well Locations: Within two miles of the base of the Pumpkin Buttes, no well pads will be constructed for coalbed methane wells, unless there are no other feasible locations. Wherever possible, areas of existing disturbance will be used. In order to minimize visual contrast, coalbed methane wells will not be placed in areas of dense sage brush or other vegetation unless absolutely necessary. Brush hogging or other vegetation removal on drilling locations within areas of dense sage brush or other vegetation will be feathered to reduce visual contrast and limited to a maximum of 125 feet in diameter. All above ground infrastructure related to well production (frost box, meter, fencing, etc.) will be painted in a color that best blends in with the surrounding topography. These colors are typically Covert Green (PANTONE for Architecture Color Guide 18-0617 TPX) or Carlsbad Canyon (Munsell Soil Color 2.5Y 6/2). It may be determined that different colors are required on a site specific determination based on a visual assessment. Additional concealment measures such as the creation of earth berms or placement of vegetation may be required to screen well locations.
- B. Conventional Oil and Gas Well Locations: Within two miles of the base of the Pumpkin Buttes for conventional oil or gas wells, wherever possible, areas of existing disturbance should be used. In order to minimize visual contrast, well locations will not be placed in areas of dense sage brush or other vegetation unless absolutely necessary. Brush hogging or other vegetation removal on drilling locations within areas of dense sage brush or other vegetation will be feathered to reduce visual contrast and limited to a maximum of 50 feet from the edge of the constructed pad. All above ground infrastructure related to well production will be painted in a color that best blends in with the surrounding topography. These colors are typically Covert Green (PANTONE for Architecture Color Guide 18-0617 TPX) or Carlsbad Canyon (Munsell Soil Color 2.5Y 6/2). It may be determined that different colors are required on a site specific determination based on a visual assessment. All gravel surfacing on pad locations must be a color that does not create a visual contrast with the surrounding topography. Additional concealment measures such as the creation of earth berms or placement of vegetation may be required to screen well locations.
- C. *In-Situ* Uranium Well Locations: Within two miles of the base of the Pumpkin Buttes for *in-situ* uranium mines, wherever possible, areas of existing disturbance should be used. In order to minimize visual contrast, wells locations will not be placed in areas of dense sage brush or other vegetation unless absolutely necessary. Brush hogging or other vegetation removal on drilling locations within areas of dense sage brush or other vegetation will be feathered to reduce visual contrast and limited to a maximum of 30 feet in diameter. All above ground infrastructure related to well production will be painted in a color that best blends in with the surrounding topography. These colors are typically Covert Green (PANTONE for Architecture Color Guide 18-0617 TPX) or Carlsbad Canyon (Munsell Soil Color 2.5Y 6/2). It may be determined that different colors are required on a site specific determination based on a visual assessment.

APPENDIX E
SITE SPECIFIC MITIGATION MEASURES TO ADDRESS PROPOSED POWER LINES

- A. Within one mile of the base of the Pumpkin Buttes, power lines servicing wells will be buried. Wherever possible, areas of existing disturbance should be used. Buried power lines will be placed inside, or within 5 feet of, the trench utilized for pipelines when possible. Construction of overhead power lines between one mile and two miles from the base of the Pumpkin Buttes will be designed to reduce visual contrast.

APPENDIX G
SITE SPECIFIC MITIGATION MEASURES TO ADDRESS OTHER FACILITIES

All permanent above-ground structures (e.g., production equipment, tanks, etc.) not subject to safety requirements will be painted to blend with the natural color of the landscape. The color will simulate the standard environmental colors established by the BLM for visual resource management. These colors are typically Covert Green (PANTONE for Architecture Color Guide 18-0617 TPX) or Carlsbad Canyon (Munsell Soil Color 2.5Y 6/2). It may be determined that different colors are required on a site specific determination based on a visual assessment.

Gravel: All gravel surfaces associated with any part of a project within two miles of the base of the Pumpkin Buttes must be a color that does not create a visual contrast with the surrounding topography.

Staging areas: The removal of large areas vegetation can create a strong visual contrast. Unless a staging area can be placed completely in existing disturbance or in grassy area that does not contain dense sage or other vegetation, it will not be permitted within two miles of the base of the Pumpkin Buttes.

Compressors: Since they can create a strong visual contrast and create auditory distractions, compressors will not be approved within two miles of the base of the Pumpkin Buttes.