

CONDITIONS OF APPROVAL
North Butte 4, North Butte 3, J Christensen Federal 21-35 and Tex Draw Add 1
Plan of Development
WY-070-EA12-123

POD Name: North Butte 4, North Butte 3, J Christensen 21-35 and Tex Draw Add 1

Operator: WPX Energy Rocky Mountain, LLC

Field Office: Buffalo Field Office
Address: 1425 Fort Street
Buffalo, Wyoming 82834

Office Telephone Number: 307-684-1100

Approved List of Wells:

#	POD NAME	WELL	TWN	RNG	SEC	QQ	LEASE	COUNTY
1	North Butte 4	34-1	44N	76W	1	SWSE	WYW144533	Campbell
2	North Butte 4	41-1	44N	76W	1	NENE	WYW155733	Campbell
3	North Butte 4	42-3	44N	76W	3	SENE	WYW144534	Campbell
4	North Butte 4	14-3	44N	76W	3	SWSW	WYW144534	Campbell
5	North Butte 4	34-4	44N	76W	4	SWSE	WYW144533	Campbell
6	North Butte 4	43-4	44N	76W	4	NESE	WYW128617	Campbell
7	North Butte 4	32-9	44N	76W	9	SWNE	WYW144533	Campbell
8	North Butte 4	21-9	44N	76W	9	NENW	WYW144533	Campbell
9	North Butte 4	34-9	44N	76W	9	SWSE	WYW135916	Campbell
10	North Butte 4	23-9	44N	76W	9	NESW	WYW144533	Campbell
11	North Butte 4	43-9	44N	76W	9	NESE	WYW135916	Campbell
12	North Butte 4	14-9	44N	76W	9	SWSW	WYW135916	Campbell
13	North Butte 4	12-10	44N	76W	10	SWNW	WYW144533	Campbell
14	North Butte 4	12-31	45N	76W	31	SWNW	WYW147322	Johnson
15	North Butte 4	43-31	45N	76W	31	NESW	WYW147322	Johnson
16	North Butte 4	34-31	45N	76W	31	SWSE	WYW147322	Johnson
17	North Butte 4	32-31	45N	76W	31	SWNE	WYW147322	Johnson
18	North Butte 4	41-31	45N	76W	31	NENE	WYW147322	Johnson
19	North Butte 4	21-31	45N	76W	31	NENW	WYW147322	Johnson
20	North Butte 3	12-35	45N	76W	35	SWNW	WYW138615	Campbell
21	North Butte 3	34-35	45N	76W	35	SWSE	WYW138615	Campbell
22	North Butte 3	32-35	45N	76W	35	SWNE	WYW138615	Campbell
23	North Butte 3	43-35	45N	76W	35	NESE	WYW138615	Campbell
24	North Butte 3	23-35	45N	76W	35	NESW	WYW138615	Campbell
25	North Butte 3	41-35	45N	76W	35	NENE	WYW138615	Campbell
26	J Christensen Fed 21-35	21-35	45N	76W	35	NENW	WYW138615	Campbell
27	Tex Draw Add 1	12-6	43N	76W	6	SWNW	WYW142079	Johnson
28	Tex Draw Add 1	21-6	43N	76W	6	NENW	WYW142079	Johnson

Deferrals: BLM defers the following APD and related infrastructure because of proximity, within 0.19 miles, of an active red-tailed hawk nest (BLM # 5319).

POD NAME	WELL	TWN	RNG	SEC	QQ	LEASE	COUNTY
North Butte 4	12-9	44N	76W	9	SWNW	WYW144533	Campbell

The spud date will be reported electronically, (see website location below) 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

SITE SPECIFIC

Wildlife

Raptors

The following conditions will alleviate impacts to raptors:

1. No surface disturbing activity shall occur within ½ mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season. This timing limitation will affect the following federal wells and their associated infrastructure including roads, pipelines, and overhead power:

Township/Range	Section	Wells and Infrastructure
45N 76W	35	Wells 23-35, 34-35 and their access corridors.
44N 76W	3	Wells 14-3, 42-3, and their infrastructure.
	4	Wells 34-4, 43-4, and their infrastructure.
	9	Wells 12-9, 14-9, 21-9, 23-9, 32-9, 34-9, 43-9, their infrastructure, and overhead power.
	10	Well 12-10 and its infrastructure.
43N 76W	6	Tex Draw Add 1 wells 12-6, 21-6, and their infrastructure.

Surveys to document nest occupancy shall be conducted by a biologist following BLM protocol, between April 15 and June 30. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities. Surveys outside this window may not depict nesting activity. If a survey identifies active raptor nests, the 1/2 mile timing buffer will be implemented.

Greater Sage-Grouse

The following conditions will alleviate impacts to sage-grouse:

1. No surface disturbing activities are permitted during sage-grouse breeding and nesting periods (March 15-June 30), for the following federal wells and all associated infrastructure.

Township/Range	Section	Wells and Infrastructure
45N 76W	31	Wells 12-31, 21-31, 32-31, 34-31, 41-31, 43-31, and their access corridors.
44N 76W	9	Wells 12-9, 21-9, 32-9, and their infrastructure.
43N 76W	6	Tex Draw Add 1 wells 12-6, 21-6, and their infrastructure.

2. A sage-grouse survey will be conducted by a biologist following the most current WGFD protocol.

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.

- a. If a previously unknown lek is identified during surveys (April 1-May 7), a Buffalo BLM biologist shall be notified.

Cultural

1. Per Attachment 1 to these COAs 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 CAMPBELL COUNTY, WYOMING; Stipulations II; WPX 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 Attachment 1 to these COAs 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 CAMPBELL COUNTY, WYOMING; Appendix A-G; WPX will operate under mitigation measures found in appendices A-G of the PA during all phases (drilling, construction, operation, reclamation, etc.) of all wells and their associated infrastructure within two miles of the Pumpkin Buttes (new surface disturbance to junction with existing disturbance).

STANDARD

General

1. A pre-construction field meeting shall be conducted prior to beginning any dirt work approved under this POD. The operator shall contact the BLM Authorized Officer, Ray Stott, at (307) 684-1179 at least 4-days prior to beginning operations so that the meeting can be scheduled. The operator is responsible for having all contractors present (dirt contractors, drilling contractor, pipeline contractor, project oversight personnel, etc.) including the overall field operations superintendent, and for providing all contractors copies of the approved POD, project map and BLM Conditions of Approval pertinent to the work that each will be doing.
2. If any cultural values [sites, artifacts, human remains (Appendix L PRB FEIS & 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.

3. 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.
4. Please contact Ray Stott, Natural Resource Specialist, at (307) 684-1100, Bureau of Land Management, Buffalo, if there are any questions concerning the following surface use COAs.
5. The first well drilled to each targeted coal zone will be designated as the POD reference well. Designated reference wells must have the ability to be sampled at the wellhead. Water quality samples will be collected by the operator and submitted for analysis using WDEQ NPDES criteria within 30-60 days of initial water production. Results of the analysis will be submitted to the BFO-BLM Authorized Officer as soon as they become available.

DRILLING AND PRODUCTION OPERATIONS

1. The operator shall complete wells (case, cement and under ream) as soon as possible, but no later than 30 days after drilling operations, unless an extension is given by the BLM Authorized Officer.
2. If in the process of air drilling the wells there is a need to utilize mud, all circulating fluids will be contained either in an approved pit or in an aboveground containment tank. The pit or containment tank will be large enough to safely contain the capacity of all expected fluids without danger of overflow. Fluid and cuttings will not be squeezed out of the pit, and the pit will be reclaimed in an expedient manner.

Well Control Equipment

1. The flow line shall be a minimum of 30 feet from the well bore and securely anchored. The 30-foot length of line is a minimum and operators must make consideration for increasing this length for topography and/or wind direction.
2. The flow line shall be a straight run.
3. The flow line must be constructed from non-flammable material.
4. All cuttings and circulating medium shall be directed to and contained in a reserve pit
5. The nearest edge of the pits shall be a minimum of 25' from the rig.
6. A minimum of 2' of freeboard shall be maintained in the pits at all times.
7. The authorized officer may modify these requirements at any time if it is determined that increased pressure control is deemed necessary.

8. 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.

Cement Program

1. 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.
2. If the evaluation indicates inadequate cementing, the operator shall contact a BLM Buffalo Field Office Petroleum Engineer for approval of remedial cementing work.
3. 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.
4. 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, then the non-municipal water shall not be used for mixing cement in the well.

Production Equipment

1. Other actions such as off-lease measurement, commingling, allocation, etc. shall be approved via a Notice of Intent sundry (Form No. 3160-5). Submission of additional information in the POD shall not be construed as permission for these items. If the operator wishes to utilize off-lease gas measurement for wells approved in this POD, they are required to obtain approval via a Notice of Intent sundry (Form No. 3160-5) prior to any gas production.

Well and POD Building Identification

1. From the time a well pad is constructed or a well is spudded (if no well pad needed), until abandonment, all well locations must be properly identified with a legible sign. The sign will include the well name and number, operator name, lease number, and the surveyed location.
2. At each POD building site where federal wells are metered, the operator is required to maintain a legible sign displayed in a conspicuous place. This sign is required to be in place at the time metering goes online. The sign shall include: POD name, Operator, Federal well names and numbers, Federal lease numbers being metered at the POD building, and surveyed location of the building.

Protection of Fresh Water Resources

1. 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.

Miscellaneous Conditions

1. 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:

Supervisory Petroleum Engineer: Matthew Warren Cell Telephone: 307-620-0103

2. If any cores are collected, a copy of all analysis performed shall be submitted to the BLM-Buffalo Field Office Petroleum Engineer.

SURFACE USE STANDARD

A. 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 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 ½:1, 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 border 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. To minimize electrocution potential to birds of prey, all overhead electrical power lines will be constructed to standards identified by the Avian Power Line Interaction Committee (2006).
7. The reserve pit will be oriented to prevent collection of surface runoff. After the drilling rig is removed, the operator may need to construct a trench on the uphill side of the reserve pit to divert surface drainage around it. If constructed, the trench will be left intact until the pit is closed.
8. The reserve pit will be lined with an impermeable liner if permeable subsurface material is encountered. An impermeable liner is any liner having a permeability less than 10^{-7} cm/sec. The liner will be installed so that it will not leak and will be chemically compatible with all substances that may be put in the pit. Liners made of any man-made synthetic material will be of sufficient strength and thickness to withstand normal installation and pit use. In gravelly or rocky soils, a suitable bedding material such as sand will be used prior to installing the liner.
9. The reserve pit will be constructed so that at least half of its total volume is in solid cut material (below natural ground level).
10. Reserve pits will be adequately fenced during and after drilling operations until pit is reclaimed so as

to effectively keep out wildlife and livestock. Adequate fencing, in lieu of more stringent requirements by the surface owner, is defined as follows:

- Construction materials will consist of steel or wood posts. Three or four strand wire (smooth or barbed) fence or hog panel (16-foot length by 50-inch height) or plastic snow fence must be used with connectors such as fence staples, quick-connect clips, hog rings, hose clamps, twisted wire, etc. Electric fences will not be allowed.
 - Construction standards: Posts shall be firmly set in ground. If wire is used it must be taut and evenly spaced, from ground level to top wire, to effectively keep out animals. Hog panels must be tied securely into posts and one another using fence staples, clamps, etc. Plastic snow fencing must be taut and sturdy. Fence must be at least 2-feet from edge of pit. 3 sides fenced before beginning drilling, the fourth side fenced immediately upon completion of drilling and prior to rig release. Fence must be left up and maintained in adequate condition until pit is closed.
11. Reserve pits will be closed as soon as possible, but no later than 90 days from time of drilling/well completion, unless the BLM Authorized Officer gives an extension. Squeezing of pit fluids and cuttings is prohibited. Pits must be dry of fluids or they must be removed via vac truck or other environmentally acceptable method prior to backfilling, re-contouring and replacement of topsoil. Mud and cuttings left in pit must be buried at least 3-feet below re-contoured grade. The operator will be responsible for re-contouring any subsidence areas that develop from closing a pit before it is sufficiently dry.
 12. 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.
 13. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.
 14. Construction and other project-related traffic will be restricted to approved routes. Cross-country vehicle travel will not be allowed.
 15. Maximum design speed on all operator constructed and maintained roads will not exceed 25 miles per hour.
 16. 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.
 17. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.
 18. 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.
 19. 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.

20. 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.

B. 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. Operators and their contractors will comply with all state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.
3. 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.
4. 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 the NB4 PODs, is Carlsbad Canyon and/or Covert Green.
5. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.
6. 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 these wells 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.
7. 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.
8. 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 exemptIt 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.

9. The operator shall restrict travel on unimproved two-track roads during periods of inclement weather or spring thaw when the possibility exists for excessive surface resource damage (e.g., rutting in excess of 4-inches, travel outside two-track roadway, etc.).

C. 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 re-contouring pit area. The operator will be responsible for re-contouring and reseeded 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. 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.
4. Distribute stockpiled topsoil evenly over those areas not required for production (i.e., cut/fill slopes, road ditches, pipelines, etc.) and reseed with approved seed mix.
5. 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.
6. 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.
7. Waterbars shall be installed on all reclaimed pipeline corridors per the guidelines in A.4.2.4 #6.

D. Reclamation/Dry Hole

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 re-contoured back to conform to 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 re-contouring pit area. The operator will be responsible for re-contouring 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 re-contour the site.

4. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling area 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:

Slope (percent)	Spacing Interval (feet)
< 2	200
2 - 4	100
4 - 5	75
> 5	50

7. The operator will drill seed on the contour no greater than 4-6 inches 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, submitted in the North Butte 4 POD, Reclamation Plan:

SPECIES	<u>LBS/ACRE</u> Pure live seed (PLS)
Thickspike Wheatgrass	3.78
Western Wheatgrass	1.92
Prairie Sandreed	2.14
Green Needlegrass	1.85
Blue Flax	2.46
Sweetvetch	1.95
Four-wing Salt Brush	3.48

Per the submitted Tex Draw Add 1 POD, Reclamation Management Plan:

SPECIES	<u>LBS/ACRE</u> Pure live seed (PLS)
Thickspike Wheatgrass	2
Western Wheatgrass Rosanna	4
Slender Wheatgrass	2
Green Needlegrass	2
Some Legume	
No Intermediate Grasses	
No Yellow Sweet Clover	
No Crested Wheatgrass	

Slopes too steep for machinery may be hand broadcast and raked with twice the specified amount of seed.

8. 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. Further clarified in SDR Decision WY-2011-12.
9. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.
10. 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. Phased reclamation plans will be submitted to BLM for approval prior to individual POD facility abandonment via a Notice of Intent (NOI) Sundry Notice. Individual facilities, such as well locations, pipelines, discharge points, impoundments, etc. need to be addressed in these plans as they are no longer needed. Individual items that will need to be addressed in reclamation plans include:
 - Pit closure (Close ASAP after suitably dry, but no later than 90 days from time of drilling unless an extension is given by BLM Authorized Officer.) BLM may require closure prior to 90 days in some cases due to land use or environmental concerns.
 - Configuration of reshaped topography, drainage systems, and other surface manipulations
 - Waste disposal
 - Revegetation methods, including specific seed mix (pounds pure live seed/acre) and soil treatments (seedbed preparation, fertilization, mulching, etc.). On private surface, the landowner should be consulted for the specific seed mix.
 - Other practices that will be used to reclaim and stabilize all disturbed areas, such as water bars, erosion fabric, hydro-mulching, etc.
 - An estimate of the timetables for beginning and completing various reclamation operations relative to weather and local land uses.
 - Methods and measures that will be used to control noxious weeds, addressing both ingress and egress to the individual well or POD.
 - Decommissioning/removal of all surface facilities
 - Closure and reclamation of areas utilized or impacted by produced CBM water, including discharge points, reservoirs, off-channel pits, land application areas, livestock/wildlife watering facilities, surface discharge stream channels, etc.
12. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
13. Any mulch utilized for reclamation needs to be certified weed free.

Attachment 1 To COAs for WPX's North Butte 4, North Butte 3, Christensen 21-35, and Tex Draw Add 1, WY-070-EA12-123

**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 1 POD and the Savageton 3 and 4 POD, and these agreements will not be altered upon the signature of this document;

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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:

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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;
 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 an 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.

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F. 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.

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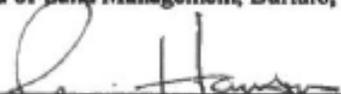
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Signatures. In witness whereof, the parties to this PA through their duly authorized representatives have executed this PA on the days and dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this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

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

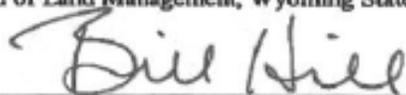
SIGNATORIES

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

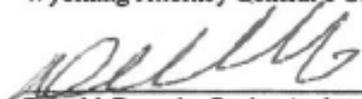
Date 1/28/09

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

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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.

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Areas with high erosion potential will have special measures applied, as necessary, to ensure successful reclamation takes place. This may include the installation of erosion fabric/matting, hydro seeding, water barring, mulching or other measures required by the BLM.

All topsoil material to be stockpiled for ten (10) months or longer will be windrowed, signed and stabilized with vegetation.

During reclamation, the fill material will be pushed back into the cuts and up over the back slope. No depressions will be left to trap water or form ponds. Topsoil will be distributed evenly over the entire area, and the seedbed will be prepared by disking to a depth of four to six inches. No reclamation work will be completed when soils are frozen or overly wet.

Site-specific, phased, final reclamation plans will be submitted to BLM for approval for all of the facilities associated with this POD, including water management control structures, at the time of their abandonment. These plans will be formulated and submitted to BLM for approval via individual Notice of Intent (NOI) Sundry Notice, as each facility is no longer needed for operational purposes. Reservoirs, land application areas, and off-channel pits will have soil testing completed to determine site-specific need for soil amendments or other treatments in order to ensure long-term reclamation success.

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**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.

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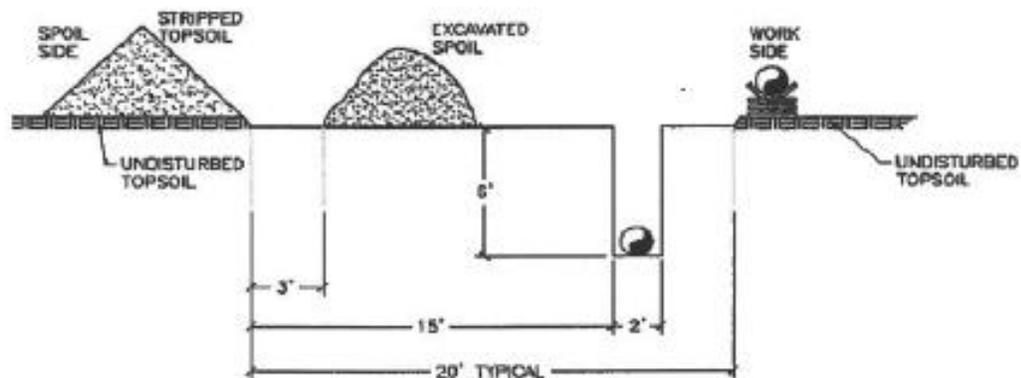
**APPENDIX C
SITE SPECIFIC MITIGATION MEASURES TO ADDRESS GATHERING PIPELINES**

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.

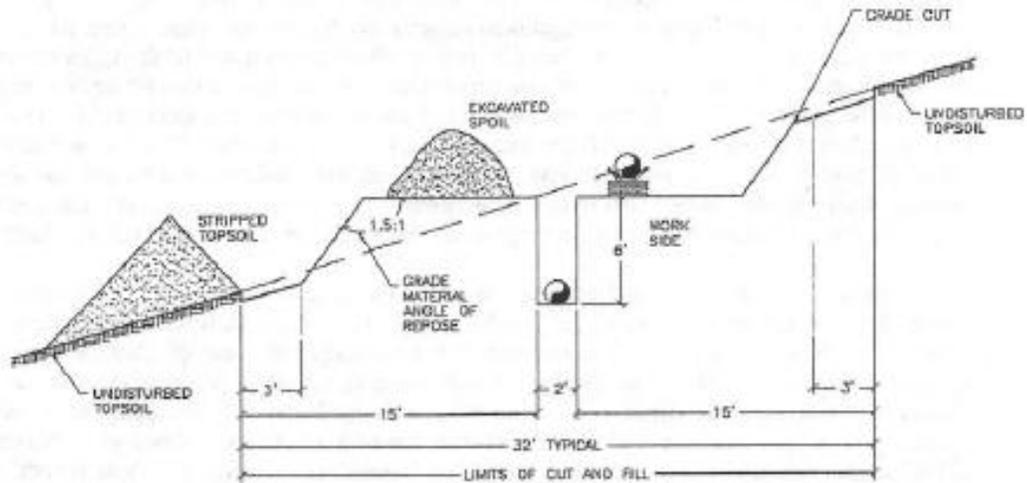
Figure 1: Typical Pipeline Construction for Level Ground



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.

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Figure 2: Typical Pipeline Construction for Areas with Side Slopes



To minimize the surface disturbance, only equipment that is appropriate to the scope and scale of the work will be used. Access to construction work will be suspended when excessive rutting or resource damage will occur. Soil and overburden will not be pushed over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved and where the material does not impede watershed and drainage flows.

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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.

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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.

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**APPENDIX F
SITE SPECIFIC MITIGATION MEASURES TO ADDRESS WATER DISCHARGE**

Reservoirs within two miles of the base of the Pumpkin Buttes can create a strong visual contrast. A visual analysis (completion of a visual contrast rating form) will be performed for each planned reservoir within two miles of the Pumpkin Buttes to determine the degree of visual contrast. If a reservoir creates a strong visual contrast, it will either not be permitted, or will be modified or relocated so it creates a moderate visual contrast or less.

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**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.

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