

448018 EXPLORATION INC. JUNIPER  
RIDGE PROJECT CARBON COUNTY,  
WYOMING

PLAN OF OPERATIONS



April 2012

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*Submitted by*

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*Submitted to*

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*and*

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# 448018 EXPLORATION INC. JUNIPER RIDGE PROJECT CARBON COUNTY, WYOMING PLAN OF OPERATIONS

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## INTRODUCTION

This Plan of Operations is submitted to the Bureau of Land Management, Rawlins Field Office (BLM), and the Wyoming Department of Environmental Quality Land Quality Division, District 1 (WDEQLQD) by 448018 Exploration Inc. (CXX) for the Juniper Ridge Project (The Project) located in Carbon County, Wyoming. CXX plans to expand exploration activities beyond its 2011 Notice of Intent to Drill. This Plan is submitted in accordance with BLM Surface Management Regulations 43 Code of Federal Regulations (CFR) 3809. The format of this Plan is consistent with the plan of operations for an exploration project.

The Project is located on private land and public lands administered by the BLM in all or parts of Sections 3, 4, 5, 6, 7, 8, 9, and 10, Township 12 North, Range 92 East (T12N, R92E), Section 1, T12N, R93E, Sections 31, 32, and 33, T13N, R92E, and Section 36 T13N, R93E, Sixth Principal Meridian (6PM), Carbon County, Wyoming (Project Area) (Appendix A, Map 1). The Project area is defined by the existing claim and State lease boundary. The Project is currently accessed by traveling approximately 6.5 miles west of Baggs, Wyoming on Carbon County Road 144 (Poison Buttes Rd) to Poison Basin, the site of Juniper Ridge Project site (Appendix A, Map 2).

Surface disturbance will consist of new exploration roads, drill sites, access to drill sites by overland travel, trenching or bulk sampling, construction of a lay down yard, construction of ground water monitoring wells, and major and minor maintenance of existing roads. Proposed activities will occur throughout the existing Project Area.

Project activities will continue to be implemented in a phased manner. In Phase I, CXX disturbed and remediated approximately 20 acres related to exploration drilling of 400 boreholes under a 2011 NOI (WYW-170631). Currently permitted exploration activities can be found in CXX's 2011 NOI (Appendix B). Substantial historic disturbance is present within the Project boundaries (Appendix A, Map 3). Phase II, to be implemented in 2012, consists primarily of 487 mud rotary boreholes totaling 79,110 ft. (Appendix D) (Appendix A, Map 9). Boreholes will be nominally four inches in diameter and range from 75 to 250 ft. deep. Access to drill sites will be via overland travel and where ever possible on existing roads. Up to ten of the exploration holes will be converted to groundwater monitoring wells. CXX is unable to specify exactly which of the boreholes will be converted until downhole data has been collected. In order to collect environmental baseline parameters, quarterly groundwater samples will be taken and a meteorological station will be erected on private land. Future surface disturbance will occur because exploration is ongoing and future target locations will be determined based on current exploration.

CXX anticipates that less than 44 acres of surface disturbance will occur in these areas during the execution of the 2012 program. Surface disturbance associated with 2012 exploration drill road construction may be as much as 2.5 acres, drill site construction will be approximately 24 acres, and overland travel will be approximately 17 acres. Additional disturbance associated with monitoring well construction and a lay down yard on private land will be approximately 10 acres. Table 1 shows the estimated disturbance on private and public land by drilling.

**Table 1**

Project Drilling						
OWNER	BOREHOLES	TOTAL FOOTAGE	MIN DEPTH	MAX DEPTH	AVG DEPTH	DISTURBANCE
BLM	106	16,585	75	250	156	10
Sheehan	204	33,300	75	175	163	18
Battle Mtn	177	29,225	75	225	165	16
State	0	0	0	0	0	0
<b>TOTAL</b>	<b>487</b>	<b>79,110</b>	<b>225</b>	<b>650</b>	<b>485</b>	<b>44</b>

A performance bond will be posted with WDEQLQD for borehole abandonment and reclamation of the surface disturbance prior to any work being performed. CXX plans to continue bonding the Project in phases as defined above. Separate bond calculations for public and private land are included in Appendix C. The additional disturbance will be bonded in subsequent phases.

On an annual basis, on or before April 15<sup>th</sup> of each year, CXX will submit to the BLM and WDEQLQD a summary of exploration and reclamation activities for the previous year as well as the anticipated activities for the upcoming exploration season. The summary will consist of a brief description of the type of activities completed and anticipated, as well as a map showing the location of the activities. The annual summary will be accompanied by an estimate of the costs to reclaim the existing and anticipated disturbance. The bond amount will be provided to the BLM prior to the commencement of any work not bonded at the time that the summary is submitted.

## 1 OPERATOR/CLAIM INFORMATION

### 1.1 Operator Information

Operator Name: 448018 Exploration Inc.

Mailing Address: 448018 Exploration Inc  
 Suite 1240  
 1140 West Pender St.  
 Vancouver, British Columbia V6E 4G1

Phone Number: Office: (781) 236-3174

Tax Payer Identification Number: 98-0540352

Point of Contact: Tom Bell

Emergency Contact Information: Tom Bell – Mark Ludwig  
 Denver, Colorado  
 Office: (720) 932-8301  
 Mobile: (781) 236 3174

#### Corporate Information

Manager: 448018 Exploration Inc  
 Suite 1240

## 1.2 Claimant/Claim Information (if different than operator information)

Claimant(s) Name & Mailing Address: Strathmore Resources (US) Ltd.  
 2420 Watt Court  
 Riverton, Wyoming  
 USA 82501

Primary Commodity: Uranium

Claim Name(s): Appendix D.

BLM Serial Number of Mining Claim(s) where disturbance would occur: Appendix D.

Claim Type(s): Lode

## 2 DESCRIPTION OF PROJECT

### 2.1 Legal Description

The Project is located on private land and public lands administered by the BLM in all or parts of Sections 3, 4, 5, 6, 7, 8, 9, and 10, Township 12 North, Range 92 East (T12N, R92E), Section 1, T12N, R93E, Sections 31, 32, and 33, T13N, R92E, and Section 36 T13N, R93E, Sixth Principal Meridian (6PM), Carbon County, Wyoming (Project Area).

### 2.2 Surface Ownership of the Land within the Area of Operation

The Project Area is located on public lands administered by the BLM and on private land. Map 4 (Appendix A) shows the surface land status within the Project Area.

#### 2.2.1 Private Lands

Portions of the surface of Sections 4, 5, 6, and 9, T12N, R92E and Sections 32 and 33, T13N, R92E are privately held. Subsurface rights are held by the Federal Government. Surface holder contact information is provided in Table 2.

**Table 2**

Project Landowners				
Landowner	Address	City	ZIP	Legal
BATTLE MOUNTAIN COMPANY	206 W MAPLE	RAWLINS	82301	E1/2NE1/4: SEC 32 T13NR92W
BATTLE MOUNTAIN COMPANY	206 W MAPLE	RAWLINS	82301	NW1/4: SEC 5 N1/2: SEC 6 T12NR92W
BRETT SHEEHAN	BOX 1	BAGGS	82321	SE1/4: SEC 32 SW1/4: SEC 33 T13NR92W
BRETT SHEEHAN	BOX 1	BAGGS	82321	NW1/4: SEC 4 NE1/4: SEC 5 T12NR92W

#### 2.2.2 Public Lands - BLM Administered

The remaining Project Area is located on public lands managed by the BLM.

### 2.2.3 National Forest System Lands - USFS Administered

None.

### 2.2.4 State Lands

Subsurface rights are held by the State of Wyoming in Section 36, T13N, R93E (Appendix A, Map 5). A copy of the State Lease is provided in Appendix D.

## 2.3 Description of Operations

CXX will continue reclamation activities permitted under NOI (WYW-170631) within the Project Area. Remaining permitted activities consist of emplacement of borehole location stakes and re-seeding as necessary. Activities proposed under this Plan of Operations will include exploration drilling, construction of trenches for bulk sampling, construction of a lay down yard, construction of up to ten ground water monitoring wells, environmental baseline monitoring, cultural, botany, and wildlife studies, and reclamation of project disturbance. The following sections describe general operating procedures, construction techniques, and equipment that CXX anticipates using.

CXX will conduct all activities within the Project Area consistent with the applicable performance standards outlined in 43 C FR 3809.420. Customary and reasonable technology and practices will be utilized so as to avoid unnecessary environmental impacts and also facilitate reclamation. Exploration will occur in phases that will be outlined by work plans and shown on maps for activities that could occur anywhere within the Project Area. These work plans will be submitted to the BLM and WDEQLQD on an annual basis prior to commencement of activities. The maps will show the location of the existing and planned surface disturbance to ensure that all eligible and unevaluated cultural resources and any other sensitive resources are avoided or mitigated. Work plans will include a reclamation cost estimate, and the bond will be adjusted as needed. Phase II exploration activities under the Plan will disturb up to 44 acres. The exact location of all surface disturbing activities subsequent to Phase II is unknown at this time.

### 2.3.1 Topographic Maps

The USGS 7.5 minute topographic maps of the Project Area are Baggs, compiled in 1982 and Poison Buttes, compiled in 1970.

### 2.3.2 Equipment

Over the life of the Project, exploration and evaluation tasks will be conducted with a subset of the vehicles listed below.

- Up to five mud rotary water well drill rigs;
- Up to two diamond drill core rigs;
- Up to four water trucks (5,000 gallon);
- Up to seven mud mixing tanks and pumps;
- Up to seven circulation tanks;
- Up to six all-terrain vehicles;
- Up to seven pipe trucks;
- One booster truck;
- Up to five geophysical logging trucks
- One auxiliary air compressor;

- Up to two portable light plant/generator;
- One bulldozer;
- Three excavators;
- Four all-terrain vehicles with a seed broadcaster;
- Up to ten four wheel drive vehicles;
- Up to twelve portable trailers/supply sheds

### 2.3.3 Work Force

Standard drilling procedures will require that a geologist be present at each drill site throughout drilling activities to manage the drill rig, log boreholes, determine maximum drill depth, and advise the drill rig operator as needed. A geophysical technician will be present to perform wireline logging on each borehole. Standard drill rig crews will consist of a drill rig operator and one to two laborers. The drill rig operator will be in charge of the drill rig and will make decisions regarding drilling techniques and equipment. Laborers will be responsible for removing and boxing the recovered core samples, removing the cuttings from the drill rigs, mixing drilling fluids in a mud pit or portable mud tank, operating the water truck, assisting with drilling operations, and conducting maintenance as necessary. Up to a total of 35 individuals (three contract personnel per drill rig crew, one geophysical technician, and one CXX-employed geologist per drill rig for seven drill rigs) could be in the Project Area at the same time. During Phase II, it is anticipated that up to ten contract personnel and five geologists will be on site. Oversight of all Phase II activities will be the responsibility of a project manager employed by CXX.

### 2.3.4 Road Construction

The Project Area will be accessed from Baggs via pre-January 1, 1981 existing roads and Carbon County Road 144 (Appendix A, Map 2). Maintenance of non-county roads could include repairing erosion damage, repairing water bars or other surface drainage, grading, blading, widening, and placing berms as necessary. All construction activities will be consistent with applicable BLM approved Best Management Practices (BMPs).

If new road construction is necessary, roads will be built with a 16-foot running surface including safety berm where warranted. Road construction will occur in areas with varying topography. As a result, the disturbance width will vary between 16 feet and 43 feet. Balanced cut and fill construction will be used to the extent practicable to minimize the exposed cut slopes and the volume of fill material. Since the depth of cut will be kept to a minimum, growth media removed during construction will be stockpiled as part of the fill slope to be used during reclamation. Road construction within drainages will be avoided wherever possible. Culverts will generally not be installed on exploration roads. However, if a culvert is necessary, the placement and size will be selected in consultation with the BLM.

Road construction will be performed with a bulldozer and/or a trackhoe and will occur intermittently throughout the life of the Project. As previously stated, CXX will utilize existing roads to the fullest extent possible. Road grades will be kept to an average of ten percent or less to minimize erosion. Where steeper grades are unavoidable, water bar spacing will not exceed 400 feet.

Maintenance of exploration roads may include minor seasonal re-grading and reestablishment of water bars as necessary, as outlined in the BLM Manual 9113. Erosion control will be monitored in the spring and fall. Existing road maintenance will not increase the surface disturbance within the Project Area and will consist of smoothing rutted surfaces and potholes on existing access and drill roads. Maintenance of existing pre-1981 roads will be conducted only on an as-needed basis and will include minor seasonal re-grading and maintenance of drainage features as necessary. Maintenance of access roads may include grading of ruts and potholes and potential graveling to reduce erosion and formation of bug dust. If road

gravel is necessary to improve some of the roads in the area, the gravel will be obtained from a BLM approved source.

### 2.3.5 Drill Sites and Drilling Procedures

New drill site disturbance will be kept to the minimum necessary for safe access and a safe working area for equipment and crew. Sites will be constructed with working areas of approximately 0.03 acre. Sumps located adjacent to the drill sites will be constructed as necessary to collect drill cuttings and manage drilling fluids. Spoil piles will be located at the edge of the sump to facilitate backfilling during reclamation. Subsoil spoils piles will be separated from top soil (growth media) piles by five feet to avoid mixing. Sump and spoil pile working areas will average approximately 0.02 acre. Drill site construction will occur in areas of varying topography therefore actual disturbance areas will vary. In flat and gentle terrain, the disturbance areas will not greatly exceed the working areas. In steeper terrain, disturbance areas for drill sites, sumps, and spoil piles could measure up to approximately 0.10 acre.

Boreholes will be vertical with average drill depths of approximately 175 feet. Cuttings not bagged and removed during sample collection will be used as a source of backfill and placed in the bottom of the sump. On private land, all boreholes will be plugged prior to the drill rig moving from the drill site. Plugging will be in conformance with procedures and materials specified in WDEQLQD Guideline No. 8, Appendix 7. On Federal land, all boreholes will be plugged to surface with a neat cement grout slurry consisting of a mixture of Portland cement and not more than 6 gallons of clean water per bag (1 cubic foot or 94 pounds) of cement.

Only water or nontoxic drilling fluids will be utilized, as necessary, during drilling. CXX's drilling contractors will obtain water at Highland Trucking in Baggs. The BLM and WDEQLQD will be notified if the source changes and provided with copies of all applicable permits.

### 2.3.6 Trenching

CXX may perform trenching activities in all phases of the Project. Trenches will be excavated using a rubber tire backhoe, Caterpillar 320 excavator or equivalent. Excavated materials will be stockpiled along the length each trench, or otherwise placed in close proximity to facilitate backfilling. Spoils piles of sub soil and top soil (growth media) will be aligned with the trench and each will be separated by five feet to avoid mixing. Trenches will be closed after sampling and removal of a bulk sample. All trenches and excavations deeper than five feet will be constructed and entered in conformance with OSHA standards as defined by 29 CFR 1926.650-2.

Exact dimensions and locations of the trenches/bulk samples cannot be identified at this time because sample sites will depend upon exploration results. It is expected that these activities could disturb up to five acres over the life of the Project. Surface disturbance will include the excavation, the spoil pile, and any required equipment access. Once the locations of trenches have been determined, and prior to excavation, CXX will notify the WDEQLQD and BLM and provide a bond for reclamation.

### 2.3.7 Lay Down Yard

CXX, to the extent possible, will utilize inactive gas production pads on private land to store drilling supplies and equipment. However, as the Project progresses and a greater number of drill rigs are utilized, CXX may construct a lay down area to store drilling supplies and equipment in subsequent phases. The lay down area will measure approximately 100 feet long by 100 feet wide (0.25 acre) and will likely be constructed in an area with a gentle or flat slope to minimize surface disturbance. Construction will consist of clearing vegetation and topsoil to create a clearing with a slight grade to reduce ponding of surface waters. Topsoil will be cleared and stockpiled within the disturbance area of the yard to be utilized

for reclamation. The lay down yard will not be constructed in Phase II. The exact location of the lay down yard will be determined at a later time. CXX will notify the BLM and WDEQLOD and make sure the bond is sufficient to cover the disturbance.

### **2.3.8 Ground Water Monitoring Wells**

CXX will construct up to ten ground water monitoring wells within the Project Area in Phase II to collect baseline data for future use. Ground water monitoring wells will be constructed in conformance with procedures and materials specified in WDEQLOD Guideline No. 8, Appendix 5. CXX will either complete up to ten exploration boreholes for use as ground water monitoring wells or drill new wells, if needed.

### **2.3.9 Hours and Conditions of Operation**

Project activities will generally be limited to daylight hours but may continue up to 24 hours per day for some drill rigs. Operations will be curtailed when saturated and soft soil conditions exist.

### **2.3.10 Water Management Plan**

Boreholes will average approximately 175 feet in depth. Drill cuttings will be captured and drill fluids will be managed with the use of sumps at each drill site. Mud rotary and core drilling requires re-circulation of drilling fluid to cool the bit and remove cuttings. Water with or without non-toxic drill additives may be utilized as necessary. CXX anticipates that each mud rotary rig will consume up to 2,000 gallons of water per shift, while each core rig will consume up to approximately 10,000 gallons per shift. Water usage will vary throughout the life of the Project based on the number of drill rigs operating at any time.

The management of drill cuttings will be conducted in a manner that is consistent with BMPs and includes use of one or all of the following: sediment traps or sumps; straw bales (certified weed-free); silt fences; and the distribution of clarified water from sediment traps through perforated pipes in order to minimize erosion from channeling. If needed, the use of a sand separation system will be used in conjunction with the sediment sumps so that the recirculating of drilling fluids can be maximized. None of the drilling fluids to be used on the Project contain hazardous substances and are all approved for well drilling and will not contaminate aquifers. Material Safety Data Sheets (MSDS) for common drill additives are included in Appendix E.

### **2.3.11 Rock Characterization and Handling Plan**

Not applicable as this is an exploration project.

### **2.3.12 Quality Assurance Plan**

Not applicable as this is an exploration project. However, quality assurance for reclamation will be addressed under the Reclamation Plan (Section 3).

### **2.3.13 Spill Contingency Plan**

A spill contingency plan is contained in Appendix E.

### **2.3.14 Wildlife and Native Plant Management Plan**

Wildlife and botany investigations were conducted in Secs. 4 and 5, T12N, R92E and Sec 32, T13N, R92E in 2007 (Appendix F). No federally-listed threatened, endangered, or special status species were detected during wildlife surveys at the project site. An active nest for one species protected by the Bald Eagle Protection Act, golden eagle (*Aquila chrysaetos*), was documented in Section 4 in 2007. The Project Site

includes twelve populations of purple funnel-lily, a BLM Sensitive Species and Wyoming Species of Concern. Many proposed activities in Phase II will take place in the sections reported on in 2007. The remaining proposed activities will be conducted in Sec 31, T13N, R92E is immediate adjacent to the studied sections. CXX believes conditions are highly similar thus no further wildlife and botany studies are necessary at this time.

An artificial raptor nest site constructed by the BLM located in SW1/4, Sec 4, T12N, R92E was unoccupied in 2011 but appears to be occupied as of March of 2012 by a pair of Golden Eagles. Phase II activities in 2012 will exclude an area one mile from this nesting site until Aug 1, 2012 or earlier if approved by the BLM and US Fish and Wildlife Service. At the conclusion of the nesting season, CXX proposes to sponsor construction of two new artificial nesting sites on public land in the general area but removed at least one mile from the project boundary (Appendix A, Map 6).

### 2.3.15 Cultural Sites, Artifacts and Paleontological Management Plan

A Class III cultural investigation was conducted in Secs. 4 and 5, T12N, R92E and Sec 32 in 2007 (Appendix F). Four prehistoric cultural sites were identified for further attention or avoidance (Appendix A, Map 7). Phase II does not include planned activities in any of these four sites.

Pursuant to 43 CFR 10.4(g), CXX will notify the BLM authorized officer, by telephone, and with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2). Further pursuant to 43 CFR 10.4 (c) and (d), the operator will immediately stop all activities in the vicinity of the discovery and not commence again for 30 days or when notified to proceed by the BLM authorized officer.

CXX will avoid or mitigate any eligible or unevaluated historical or archaeological site, structure, building or object. If CXX discovers any cultural resource that might be altered or destroyed by operations, the discovery will be left intact and reported to the authorized BLM officer.

CXX will not knowingly disturb, alter, injure, or destroy any scientifically important paleontological deposits. If CXX discovers any scientifically important paleontological resource that might be altered or destroyed by operations, the discovery will be left intact and reported to the authorized BLM officer.

### 2.3.16 Other Plans

Solid wastes will be managed through collection and disposal at the solid waste disposal site in Baggs at the end of each drill shift.

The following precaution measures will be taken to prevent wildland fires: 1) All vehicles will carry a minimum of a shovel and five gallons of water (preferably in a pump), in addition to a conventional fire extinguisher; 2) Adequate fire-fighting equipment (shovel, pulaski, standard fire extinguisher(s), and an ample water supply) will be kept readily available at each occupied drill site; 3) Vehicle catalytic converters will be inspected often and cleaned of all flammable debris; 4) All cutting/welding torch use, electric arc-welding, and grinding operations will be conducted in an area generally free of vegetation. An ample water supply and shovel will be on hand to extinguish any fires created from sparks. At least one person in addition to the cutter/welder/grinder will be at the work site to promptly detect fires created by sparks; 5) Any restriction or closures issued by the Rawlins Field Office that apply to the Project will be observed by Project personnel; and 6) Any observed wildland fire will be reported immediately to the Rawlins Interagency Dispatch Center at 800-295-9953.

### 2.3.17 General Schedule of Operations from Start through Closure

CXX will continue permitted exploration activities under the existing Plan. CXX will commence Phase II work, outlined in this Plan, upon approval by the BLM and the WDEQLQD. CXX anticipates that the proposed exploration activities under this Plan will last approximately five years.

Reclamation will begin within exploration areas considered inactive, without potential, or completed, at the earliest practicable time. Reclamation activities will be coordinated with the BLM and the WDEQLQD, as necessary. The proposed reclamation is expected to have duration of up to two years from the time of commencement of final reclamation and will be initiated within two years after the completion of exploration activities. Re-vegetation is anticipated to take three years after the time of seeding to achieve success.

### 2.3.18 Land within the Area of Operation Which was affected by the Following:

#### *2.3.18.1 An Operation Conducted by a Previous Operator and Which Is Inactive on the Date on Which the Plan of Operations for a Permit for an Operation Is Filed*

- Shawano Development Corporation mined uranium from several open pits prior to 1965
- Basin Engineering mined uranium from several open pits prior to 1965
- Union Carbide mined uranium from several open pits prior to 1970
- Teton Resources mined uranium from several open pits prior to 1970
- Western Nuclear mined uranium from several open pits in prior to 1970
- Urangesellschaft USA Inc. conducted an extensive exploration program between ca. 1975 and ca.1979.
- Agip Company Inc conducted an extensive exploration program between ca. 1979 and ca. 1985.
- Merit Energy developed two gas wells in 2001
- Samson Resources developed two gas wells in 2003
- Saga Petroleum developed 15 gas wells between 1954 and 2007

#### *2.3.18.2 The Current Operator before January 1, 1981, and Which Is Inactive on the Date on Which the Plan of Operations for a Permit for an Operation Is Filed*

None.

#### *2.3.18.3 The Current Operator before January 1, 1981, and Which Is Active on the Date on Which the Plan of Operations for a Permit for an Operation Is Filed*

None.

#### *2.3.18.4 The Current Operator on or after January 1, 1981, but Before October 1, 1990, and Which Is Inactive on the Date on Which the Plan of Operations for a Permit for an Operation Is Filed*

None.

#### *2.3.18.5 The Current Operator on or after January 1, 1981, but Before October 1, 1990, and Which Is Active on the Date on Which the Plan of Operations for a Permit for an Operation Is Filed*

None.

### 2.3.19 The Location of any Surface Water Body within One-Half-Mile Down gradient of the Operation Which May be Impacted by Excess Sedimentation Resulting from the Mining Operations.

There are no down-gradient springs located within 0.5 miles of the Project Area. In addition, there are no seeps or perennial drainages within or adjacent to the Project Area. Poison Draw, an ephemeral stream, is located in the eastern portion of the Project Area. The draw generally flows in the early spring during

heavy snow melt. In addition to Poison Draw, there are several other ephemeral drainages located throughout the Project Area. The drainages generally flow in response to seasonal precipitation.

### 2.3.20 Land within the Operation Area Active on or after October 1, 1990

There are approximately 64 acres of Project-related surface disturbance in the Project Area consisting of access roads, drill sites, exploration roads, natural gas production pads, natural gas pipelines, and gas production infrastructure. All post October 1, 1990 disturbance is shown on Map 8 (Appendix A).

### 2.3.21 Access Roads which Were Created before January 1, 1981

All access roads were created prior to January 1, 1981.

### 2.3.22 Surface Occupancy

Under 43 CFR 3715.0-5, occupancy means full or part-time residence on the public lands. It also means activities that involve residence; the construction, presence, or maintenance of temporary or permanent structures that may be used for such purposes; or the use of a watchman or caretaker for the purpose of monitoring activities. Residence or structures include, but are not limited to, barriers to access, fences, tents, motor homes, trailers, cabins, houses, buildings, and storage of equipment or supplies. CXX may utilize up to 12 portable trailers as office space and housing. In addition, CXX will construct up to ten ground water monitoring wells. Groundwater monitoring wells will each be equipped with above ground covers/locks, which meet the definition of temporary structures. This Plan serves as a request for occupancy for these structures.

## 2.4 Environmental Protection Measures

CXX will commit to the following environmental protection measures to prevent unnecessary or undue degradation during construction, operation, and reclamation of the Project. The measures are derived from the general requirements established in the BLM's Surface Management Regulations at 43 CFR 3809 and WDEQLQD mining reclamation regulations, as well as other water and air quality regulations.

- Generally, all holes will be surveyed and plugged as an operational procedure immediately after completion of drilling in accordance with WDEQLQD Guideline No. 8, Appendix 7 on private land. Boreholes on public land will be plugged to surface with a neat cement grout slurry consisting of a mixture of Portland cement and not more than 6 gallons of clean water per bag (1 cubic foot or 94 pounds) of cement.
- Public safety will be maintained throughout the life of the Project. All equipment and other facilities will be maintained in a safe and orderly manner.
- All trenches, sumps, and other small excavations that pose a hazard or nuisance to the public, wildlife, or livestock will be adequately fenced to preclude access to them. Activities are restricted to frozen or dry ground conditions where feasible. Operations will be curtailed when saturated and soft soil conditions exist.
- CXX will not conduct surface disturbing activities when snow conditions result in mule deer (*Odocoileus hemionus*) using the lands within the Plan Boundary as winter habitat. Surface disturbing activities will not take place until snow conditions allow. These seasonal restrictions on creating new surface disturbance will be implemented in coordination with BLM wildlife specialists in response to site-specific, on-the-ground conditions.
- A non-disturbance buffer will be respected for nesting raptors as defined by the US Fish and Wildlife Service.

- Any survey monuments, witness corners, or reference monuments will be protected to the extent economically and technically feasible.
- Pursuant to 43 CFR 8365.1-1(b) (3), no sewage, petroleum products, or refuse will be dumped from any trailer or vehicle.
- All applicable state and federal fire laws and regulations will be complied with and all reasonable measures will be taken to prevent and suppress fires in the Project area.
- Final reclamation of overland travel roads, sumps, and drill sites will consist of, if applicable, fully re-contouring disturbances to their original grade and re-seeding in the fall season immediately following completion of exploration activities.
- In the event that any existing roads in the Project Area are severely damaged as a result of CXX activities, CXX will return them to their original condition.
- Re-seeding will be consistent with all BLM and WDEQLQD recommendations for seed mix constituents, Plan of Operations rate, and seeding methods.
- Only nontoxic fluids will be used in the drilling process.
- Drill cuttings will be contained on site and drill fluids managed utilizing appropriate control measures. Sediment traps will be used as necessary and filled at the end of the drill program.
- Regulated wastes will be removed from the Project Area and disposed of in a state, federal, or local designated area.
- Emissions of fugitive dust from disturbed surfaces will be minimized by utilizing appropriate control measures. Surface Plan of Operations of water from a water truck is the current method of dust control during high wind conditions.
- Noxious weeds will be controlled through implementation of preventive BMPs and eradication measures if noxious weeds are found.
- Drill sites, sumps, and trenches will be reclaimed as soon as practicable after completion of logging and sampling.
- All equipment will be properly muffled and equipped with suitable and necessary fire suppression equipment, such as fire extinguishers and hand tools. All Project-related traffic will observe prudent speed limits to enhance public safety, protect wildlife and livestock, and minimize dust emissions.
- All activities will be conducted in conformance with applicable federal and state health and safety requirements.
- All Project-related refuse will be disposed of on a daily basis consistent with applicable regulations. No refuse will be disposed of on site. In the event that hazardous or regulated materials such as diesel fuel are spilled, measures will be taken to control the spill and the WDEQLQD will be notified. The Spill Plan (Appendix E) outlines procedures in case of a spill. All boreholes will be abandoned in accordance with applicable federal and state standards as set forth in this Plan and discussed in detail in the Reclamation Plan (Section 3).
- CXX will follow the Spill Prevention Plan in Appendix E.

### 3 RECLAMATION PLAN

Reclamation will be completed to the standards described in 43 CFR 3809.5. The reclamation measures to be utilized by CXX for the Project are described in the following sections.

Reclamation activities will be conducted when it has been determined that exploration disturbance is no longer needed. Reclamation will begin within exploration areas considered inactive, without potential, and will be completed at the earliest practicable time. Earthwork and re-vegetation activities are limited by the time of year during which they can be effectively implemented. Table 3 outlines the anticipated reclamation schedule on a quarterly basis. Site conditions and/or yearly climatic variations may require that this schedule be modified to achieve re-vegetation success. Reclamation activities will be coordinated with the BLM and the WDEQLQD, as necessary. The proposed reclamation is expected to have duration of up to two years from the time of commencement of final reclamation and will be initiated within two years following completion of exploration activities. Re-vegetation success is anticipated to take three years after the time of seeding.

**Table 3**

Drilling and Reclamation Schedule				
	2012			
Activity	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Site Preparation		X	X	X
Drilling		X	X	X
Contouring		X	X	X
Seeding				X

#### 3.1 Drill Hole Plugging

All boreholes on private land will be plugged in accordance with WDEQLQD Guideline No. 8, Appendix 7. All boreholes on public land will be plugged to surface with neat cement grout slurry consisting of a mixture of Portland cement and not more than 6 gallons of clean water per bag (1 cubic foot or 94 pounds) of cement. Generally, boreholes on private land will be plugged prior to the drill rig leaving the site; however, CXX will leave boreholes open until wireline logging has been completed.

#### 3.2 Re-grading and Reshaping

Re-grading and reshaping of all constructed drill sites, exploration roads, trenches, monitoring wells, and the lay down yard, will be completed to approximate the original topography. Fill material, enhanced with growth media, will be pulled onto the roadbeds, and drill/well sites to fill the cuts and restore the slope to natural contours. Topsoil removed and stockpiled during the construction of the lay down yard will be replaced on the cleared area and re-graded. Sumps and trenches will be backfilled with the stockpiled spoil pile. Reclamation work will be completed with an excavator and bulldozer as necessary.

Should any drainage be disturbed, they will be reshaped to approach the pre-construction contours. The resulting channels will be of the same capacity as up and downstream reaches and will be made non-erosive by use of surface stabilization techniques (rip-rap) where necessary, and ultimately re-vegetated. Following completion of earthwork, all disturbed areas will be re-seeded.

### 3.3 Mine Reclamation

Not applicable as this is an exploration project.

### 3.4 Handling of Topsoil

Soils capable of serving as growth media will be salvaged and stockpiled as part of the fill slope of roads and drill/well sites. Topsoil removed during construction of the lay down yard will be stockpiled within the cleared area. In addition, as much of the soil organic matter as possible will be salvaged to minimize compaction and promote aeration. Soil amendments are not considered necessary in those areas where sufficient growth media are available.

### 3.5 Re-vegetation

Generally, seedbed preparation and seeding will take place in the fall after re-grading of disturbed areas. All reclaimed areas will be broadcast seeded with a cyclone-type bucket spreader, mechanical blower, or by hand. Broadcast seed will be covered by harrowing, raking, or other site-specific appropriate methods as necessary to provide seed cover and enhance germination. Reclaimed surfaces will be left in a textured or rough condition (e.g., small humps, pits) to enhance moisture retention and re-vegetative success while minimizing erosion potential.

The seed list, provided by the BLM and shown in Table 4, is based on known soil and climatic conditions and was selected to establish a plant community that will support the post-exploration land use. The mix is designed to provide species that can exist in the environment of south-central Wyoming, are proven species for re-vegetation, and/or are native species found in the plant communities prior to disturbance. Broadcast seeding will be at a rate of approximately 15.5 pounds of pure live seed (PLS) per acre. Changes and/or adjustments to the reclamation plant list and/or Plan of Operations rate will be completed in consultation with and approval by, the BLM and WDEQLQD.

**Table 4**

Seed mix for Juniper Ridge Uranium drill hole reclamation	
Species	lbs PLS/acre
Thickspike Wheatgrass	4
Western Wheatgrass	2
Indian Ricegrass	2
Prairie Sandreed	2
Great Basin Wildrye	2
Fourwing Saltbush	0.5
Gardner Saltbush	1
Big Sagebrush	1
Rubber Rabbitbrush	1
<b>TOTAL</b>	<b>15.5</b>

Timing of re-vegetation activities is critically important to the overall success of the program. Seeding activities will be timed to take advantage of optimal climatic periods and will be coordinated with other reclamation activities. In general, earthwork and drainage control will be completed in the summer or early

fall. Seedbed preparation will generally be completed in the fall, either concurrently with or immediately prior to seeding. Seeds will be sown in late fall to take advantage of winter and spring precipitation and optimum spring germination. Early spring seeding may be utilized for areas not seeded in the fall. In either case, seeding will not be completed when the ground is frozen or snow covered.

### **3.6 Isolation, Removal, and/or Control of Acid-Forming, Toxic, or Deleterious Materials**

Refer to Section 5.2 under the Interim Management Plan.

### **3.7 Removal or Stabilization of Building, Structures, and Support Facilities**

Up to twelve temporary structures may be utilized for office space and a field camp during the life of the Project as well as up to ten ground water monitoring wells. All equipment, temporary structures, and supplies will be removed following completion of the Project or at the end of each drilling season. Other materials, including scrap, trash, and unusable equipment, will be removed on a daily or weekly basis and disposed of in accordance with federal and state regulations and laws.

### **3.8 Post-Closure Management**

Post-closure management will commence on any reclaimed area following completion of the reclamation work for the area. Post-closure management will extend until the reclamation of the site or component has been accepted by both the BLM and WDEQLQD. For bonding purposes, a three-year post-closure management period is assumed following completion of reclamation construction on any site. For sites reclaimed early in the operations, management of the reclaimed sites will occur concurrently with operational site management. Annual reports showing reclamation progress will be submitted to the BLM and WDEQLQD.

## **4 MONITORING PLAN**

Monitoring of the drill sumps includes periodic visual inspections during drill operations to ensure that the drill cuttings are contained. Should the observed conditions indicate that the sump containment is inadequate, additional sump capacity will be built and/or incorporated into the drilling fluid management system. Monitoring associated with reclamation activities is addressed in the Reclamation Plan (Section 3).

Monitoring of drill roads and water bars will include visual inspections, primarily after storm events. If erosion has occurred, or seems likely to occur, the water bars and roads will be repaired using a Caterpillar 325 excavator, or equivalent.

### **4.1 Demonstrate Compliance with the Approved Plan of Operations and Other Federal and State Environmental Laws and Regulations**

The activities outlined in this Plan will be conducted upon BLM and WDEQLQD approval of this Plan.

### **4.2 Provide Early Detection of Potential Problems**

Not applicable as this is an exploration project.

### **4.3 Supply Information That Would Assist in Directing Corrective Actions Should They Become Necessary**

Not applicable as this is an exploration project.

## **5 INTERIM MANAGEMENT PLAN**

The following discussion includes those topics that are pertinent to the planned exploration activities.

### **5.1 Measures to Stabilize Excavations and Workings**

The planned exploration activities do not include mine excavations or workings. The constructed exploration drill roads, sites, sumps, trenches, lay down areas, and monitoring well sites will be maintained in operating condition until reclamation to prevent wash outs and containment breaches.

### **5.2 Measures to Isolate or Control Toxic or Deleterious Materials**

Toxic substances utilized at the Project will include diesel fuel, gasoline, and lubricating grease. Approximately 500 gallons of diesel fuel and gasoline will be stored in fuel delivery systems on vehicles and drill rigs. Approximately 100 pounds of lubricating grease will be stored on the drill rig or transported by drill trucks. In the event that hazardous or regulated materials are spilled, measures will be taken to control the spill, and the BLM and/or the WDEQLOD will be notified as required. Any hazardous substance spills will be handled in accordance with the Spill Contingency Plan (Appendix E), including an immediate clean up and any resulting waste transferred off site in accordance with all applicable local, state, and federal regulations. Contract drillers will maintain spill kits on site for use in case of a spill.

### **5.3 Provisions for the Storage or Removal of Equipment, Supplies and Structures**

During extended periods of nonoperation or seasonal closure of the exploration activities, all exploration equipment and supplies will be moved from the Project Area. Lay down/storage yards will be secured. No chemicals or waste will be stored on site during temporary or seasonal closure. Portable structures (trailers) will be removed.

### **5.4 Measures to Maintain the Project Area in a Safe and Clean Condition**

CXX will conduct regular, periodic inspections of the exploration areas and activities.

### **5.5 Plans for Monitoring Site Conditions during Periods of Nonoperation**

The measures outlined in Section 5.4 will be conducted during periods of nonoperation, except as limited by weather and ground conditions.

### **5.6 A Schedule of Anticipated Periods of Temporary Closure during Which You Would Implement the Interim Management Plan, Including Provisions for Notifying BLM and WDEQLOD of Unplanned or Extended Temporary Closures**

CXX anticipates that Project activities will not occur during winter months. Generally operations will be suspended from late November through early April; however, actual time frames will depend on the actual snow fall and melt. CXX will ensure all equipment, and temporary strictures are removed from the Project during seasonal closure. Materials stored in the lay down yard will be removed or secured. All refuse will be removed from the site and disposed of in an appropriate landfill. Sumps and trenches will be filled or fenced as necessary. Non-weather related closures are not anticipated; however, should it happen, CXX will notify the BLM and WDEQLOD verbally and in writing, and follow all procedures for seasonal periods of non-operation.

## **5.7 In Cases of Temporary or Seasonal Closure, You must Provide Adequate Maintenance, Monitoring, Security, and Financial Guarantee, and BLM May Require You to Detoxify Process Solutions**

Not applicable as this is an exploration project

## **6 STATEMENT OF ASSUMPTION OF RECLAMATION RESPONSIBILITY**

CXX agrees to accept the responsibility for reclamation of all surface disturbances associated with the Project detailed under this Plan of Operations. CXX will obtain a reclamation performance bond for the activities outlined in this Plan of Operations, as per WDEQDLQ.

## **7 RECLAMATION COST ESTIMATE**

Reclamation of the Project is designed to return the site to a safe, stable, and productive condition capable of supporting wildlife habitat, mineral exploration, livestock grazing, and recreation. The commitment to successful completion of this task is expressed in initial designs that facilitate ease of implementation of the Reclamation Plan, planned construction and reclamation design, which minimizes surface disturbance and implementation of concurrent reclamation where appropriate. The reclamation tasks are set forth in the Reclamation Plan (Section 3) for both permitted activities and proposed activities will follow the bond release criteria established by the BLM and WDEQLQD.

CXX has projected that the total existing and proposed surface disturbance will equal approximately 70 acres. CXX will conduct the exploration activities and bonding in phases; therefore, the cost estimate includes existing disturbance (~20 acres) and proposed Phase II disturbance (~44 acres) for a total of 64 acres. Cost estimates are based on costs incurred during Phase I in 2011. Site reclamation was charged at \$200/site exclusive of harrowing and seeding. Site harrowing and reseeding was done at a flat rate of \$100/site inclusive of harrowing and seeding overland travel routes to each site. The approved seed costs \$130/acre. The total estimated cost of reclaiming 487 sites is \$152,470.

## **8 EFFECT OF PROPOSED RECLAMATION ON PUBLIC SAFETY**

No unnatural hazards will exist during or after reclamation in the disturbed/reclaimed areas.

## **9 ACKNOWLEDGMENTS**

It is understood that should the nature of the operation change, a modified or supplemental plan of operations and reclamation may be required.

It is understood that approval of this Plan of Operations does not constitute: (1) Certification of ownership to any person named herein; and (2) Recognition of the validity of any mining claim herein.

It is understood that a bond equivalent to the actual cost of performing the agreed upon reclamation measures will be required before this Plan of Operations can be approved. Bonding and any bond reduction amounts will be set on a site-specific basis by the lead agency in coordination with the cooperating agencies.

It is understood that approval of this Plan of Operations does not relieve the undersigned of responsibility to comply with any other applicable state or federal laws, rules or regulations.

It is understood that any information provided with this Plan of Operations that is marked confidential will be treated by the agency in accordance with that agency's laws, rules and regulations.

On behalf of 448018 Exploration Inc., I have reviewed and agree to comply with all conditions in this Plan of Operations and Reclamation Plan. I understand that the bond will not be released until the state agency in charge gives written approval of the reclamation work.

448018 Exploration Inc

By  Date April 27, 2012

C. Stewart Wallis  
President 448018 Exploration Inc

## 11 REFERENCES

Bureau of Land Management (BLM). 1989. *Surface Management of Mining Operations (NSO) Handbook H-3809-1.*

\_\_\_\_\_. 1992. *Solid Minerals Reclamation Handbook #H-3042-1.*

\_\_\_\_\_. 1999. *Revised Guidelines for Successful Mining and Exploration Revegetation.*