POLE MOUNTAIN 3D GEOPHYSICAL SURVEY

GREEN RIVER ENERGY RESOURCES, INC

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT KREMMLING FIELD OFFICE

STATEMENT OF OPERATIONS

November 26, 2007



INTRODUCTION

Green River Energy Resources (GRER) proposes to conduct an exploratory, three-dimensional (3D), geophysical survey of the Pole Mountain 3D project area. The proposed program is approximately 35.50 square miles (22,717.21 acres) in size and is located in Township 7 North and Range 80 and 81 West in Jackson County, Colorado. This survey will provide data to develop a 3D image of the geologic structure and stratigraphy underlying the project area. The survey area includes federal lands administered by the Bureau of Land Management (3.56 square miles), State lands (0.99 square miles), US Fish and Wildlife (0.73 square miles) and private fee lands (30.22 square miles). The data generated from this survey will significantly enhance evaluation of the potential mineral resources under federal lease, thus reducing the potential for non-productive wells and associated construction of new roads, well pads, pipelines, etc. Administrative activities associated with downstream oil and gas actions would also be significantly reduced by virtue of the increased accuracy of drilling objectives facilitated by this 3D seismograph survey.

All operations will be conducted in accordance with USDOI BLM H3150 Manual and Handbook and in compliance with Conditions of Approval (COA) developed from the Resource Management Plan (RMP) for the Kremmling BLM Field Office (1984).

OPERATIONS SCHEDULE

OPERATION

Phase I Surveying and Permitting Phase II Drilling Phase III Recording Phase IV Clean-up and Completion

COMMENCEMENT DATE

December 2007 January 2008 February 2008 March 2008

Topographical map with source and receivers



Legend

- Receiver_Preplot
- ▲ Source_Preplot
- Bureau of Land Management
- Private
- State
 - US Fish and Wildlife Service

SCOPE OF PROGRAM

The proposed seismic project will involve a total of approximately 36 parallel lines of receiver (geophone) stations. Of these, a total of 16 lines of 144 stations (1 string of 6 geophones per station) will be active for the actual recording of each individual source point.

Within the project, the receiver lines will be positioned in an east to west array perpendicular to the north-south oriented source arrays. The receivers will be spaced at an interval of 220 feet and a line separation of 880 feet for a total of 5,254 receiver points (147.21 per square mile). The source arrays will be deployed in a "brick" array, between lines of receivers, at a 220-foot interval and a distance of 880 feet between lines for a total of approximately 5,184 source-points (145.29 per square mile). The ideal configuration may be marginally modified due to topographic constraints or cultural or other resource avoidance areas. Due to the complex geological objective of this survey, it is critical to the integrity of the geophysical data that relocation of source points is kept to a minimum and that the receivers are positioned as plotted.

Methods of generating sonic energy sources will include both vibroseis and shothole operations. Approximately 85 to 90 percent of the project will use buggytype vibrators. Articulated buggy drills will be used to drill shot holes for approximately 10 to 15 percent of the source points. Areas not accessible by the buggies (less than 5 percent) will be drilled and loaded by the heliportable drills. The exact number of each type of the various energy sources will be determined once the source-point survey phase of the job has been completed.

CHRONOLOGY OF PROJECT ACTIVITIES

Geophysical survey activities will proceed systematically from the southern edge of the project area and continue working to the north through project completion. Specific activities in order of occurrence will include:

- Permitting of private, state and federal Land for surface and mineral interests. Activities occurring on USDOI BLM lands will commence on federal surface following analysis of Categorical Exclusion criteria, compilation of appropriate environmental documentation and receipt of BLM notice to proceed.
- 2. Surveying of source point locations (civil survey) and identification of avoidance areas for cultural, biological and other resource concerns on federal lands. *Note: Surveying operations will be conducted according to "Casual Use," as defined within the BLM Handbook for geophysical operations.*

- 3. Drilling of shot holes and placement of explosives will proceed generally from south to north or as field logistics dictate. Drilling activity will commence once sufficient survey lead is attained and approximately 10 days in advance of subsequent recording activities.
- 4. Recording crew mobilization and deployment of geophone arrays. Recordation of individual source points will begin shortly after placement of the all the of receiver stations (geophones).
- 5. Clean-up operations and demobilization.

Project duration will continue for approximately 10 weeks from the commencement of surveying. drilling and data recording operations are expected to take about 35 to 45 days including weather delays, mobilization and demobilization.

SURVEY OPERATIONS

To accurately define the extent and locations of project activities, a land survey crew will locate and place temporary pin flags and access flagging using a high-accuracy global positioning system (GPS). This work will be completed on foot, using ATVs or snow machines where terrain will permit. Existing access roads and trails will be utilized where possible. Vehicles bringing surveyors to and from the project area will remain on existing roads and trails. The survey crew will be responsible for positioning source point and receiver (geophone) stations such that they comply with the Pole Mountain 3D geophysical design criteria. Natural resources, such as riparian areas and existing land use features identified by the BLM and/or state as having special value will also be avoided. A light turbine helicopter may be used to assist surveyors in areas of rough terrain.

GRER project management will inform the BLM Authorized Officer approximately one week prior to commencement of actual surveying. Prior to commencement and to the degree that winter operations may require, GRER will communicate with BLM to incorporate all existing GIS information identifying areas of special resource concern, National Historic Preservation Act sites, Threatened and Endangered (T&E) species locations, or other resource concerns so that these may be flagged for avoidance.

DRILLING OPERATIONS

Drilling will be conducted using buggy drills and possibly heliportable drills. Most of the buggy holes will be drilled and loaded prior to mobilization of the heliportable drills if in fact conditions dictate heliportable drills are required. Drilling operations would use compressed air as the medium for return of drill cuttings. Although a small volume of water may be used for stabilization of alluvial surface conditions (5 gallons or less in total), water would not typically be used during drilling operations. Drilling will be conducted no closer than 100 feet from edges of cliffs, upland escarpments or areas in excess of 60 degrees of slope. After placing the charge in the shot hole, cuttings will be used to back-fill the hole and a shot hole-plug will be placed in the hole as specified by State of Colorado regulations for seismic exploration. A nonmetallic plug will be installed within three feet of the surface and the remaining three feet will be tamped to the surface and covered with more drill cuttings and soil. Excess drill cuttings will be mixed with soil and spread over the surrounding area. Remaining cuttings will be raked out to 1" depth or less to facilitate immediate recovery of vegetation adjacent to the borehole. In the event that water is encountered during drilling operations course ground bentonite will be used to seal any aquifer which is penetrated.

Buggy Drilling

Buggy drills will travel off road and follow the pre-surveyed path to the source locations, following a meandering path not conducive to continued use by the general public. These drills weigh around 28,000 pounds and are mounted on all-terrain-type vehicle tires. No clearing or grading by heavy equipment of routes for the off-road drilling program will be conducted. In certain locations, it may be necessary to remove trees or limbs less than 8 inches in diameter to facilitate the passage of drill buggies. The by-product of the cutting will be "bucked and scattered". This practice will be limited to areas of 27 degrees of slope or less.

Buggy Drilling Operation



Heliportable Drills

For source locations located off road/trail that cannot be safely reached by buggy drills, the heliportable drill will be used to access and drill shot hole locations within the more rugged or steeper terrain. Surface disturbance by heliportable drill operations will result in a 4 to 5-inch diameter borehole from which cuttings will radially extend approximately 3 to 4 feet. The components of a heliportable drilling system usually consist of the drill and mast, the compressor and the support basket containing drill stem, tools, etc. The weight of these items depends largely upon the depth of the shothole to be drilled and lift capacity of the helicopter is determined by the weight of the various components. For work in the Pole Mountain 3D area, 3 to 4 passes of the helicopter may be anticipated for each source position and 3 to 4 passes will be required to reposition the equipment to the next source point. Each pass will consist of less than one minute of actual flight over the source location and the remainder of the daily flight time will consist of going to and from each source point or delivering personnel to the sight. Typically, around 6 to 7 flight hours per day are necessary to support an operation such as the Pole Mountain 3D, resulting in a total of 30 to 35 holes per day.

Heliportable Drill Operation



Shothole Parameters and Regulatory Authority

All shotholes will be bored to a depth of 25 to 40 feet and loaded with an explosive charge of 5 pounds developed specifically for seismograph operations. (MSDS information available upon request.) The contract geophysical crew will detonate the explosives set in drilled shotholes located by Green River Energy Resources, Inc. GRER operates under Bureau of Alcohol, Tobacco and Firearms (BATF) License 9-MT-029-33-8D-00367 and in accordance with Title 27, Code of Federal Regulations Part 55 – Commerce in Explosives. All employee possessors are specifically authorized through BATF to handle and transport explosives, and ultimate responsibility for explosives handling rests with the principals of GRER.

Each shothole will be detonated individually as they are interspersed within the vibroseis source points and between the 16-line groups of receiver stations. Detonation will be triggered from a central control truck ("recorder") stationed on an existing road/trail and according to operational logistics as determined by the recording contractor. In the event that a detonated shothole blows the plug and the drill cuttings out of the hole (a blowout), the surface will be repaired as part of line restoration/reclamation, including re-plugging and replacing the hole packing materials with drill cuttings and soil materials that were expelled by the blast from the hole. Based on experience in similar geologic settings, blowouts are quite unlikely to occur.

RECORDING OPERATIONS

Recording equipment will be transported to the field and to staging areas (includes helicopter landing zones) by truck using existing roads and trails. Sufficient equipment to lay out six sets of geophones, one length of seismic cable, and appropriate battery and field recording boxes will be placed in reinforced nylon cache bags at helicopter landing sites and flown to the predetermined, flagged locations for stations along each receiver line. One helicopter will be used for the recording operation and will operate only in daylight hours ferrying the receiver-station cache bags. The helicopter will move four to six cache bags at a time suspended from a "long-line." The helicopter will operate at an altitude of approximately 100 to 1,000 feet above the receiver lines and deposit one bag at a time at the GPS pin flagged locations provided by the Ground crew members will walk to the first dropped cache bag on surveyors. their receiver line, prepare and connect the station, and manually deploy cables and geophones. Seismic cable and attached geophones will be laid out by hand around each station in the pre-determined pattern. The geophones will be mounted on a four-inch spike and placed into the soil using foot pressure. The crewmember will then proceed on foot to the second bag and repeat the set up of the first station (receiver location) and its network of cable and geophones. Stations, cable, and geophones will be laid out in this manner at each station across the project area. Up to 16 lines of 144 geophone stations will be active at any time throughout the data acquisition task.

A Typical Vibrator



Vibrator Sources

As earlier mentioned, vibrators will be utilized to generate approximately 85 percent of the sources throughout the project. Each vibrator unit weighs approximately 60,000 pounds and 3 to 4 vibrators will be grouped bumper-tobumper at each individual source location. Upon command of electronic signal generated at the recording truck and delivered by FM radio, the vibrators will simultaneously lower their pads and deliver a synchronized "sweep" of vibrations for a period of approximately 5 seconds. At the end of each sweep the vibrators will move up a distance of a few feet and repeat the process. The total number of sweeps per source point will be determined based on field testing however an average of 4 to 8 sweeps per source point is typical for the type of geology specific to the project area. Once the total number of sweeps has been recorded on an individual source point, the vibrators will proceed approximately 220 feet to the next source point and repeat the process until an entire east/west "swath" of source points is complete. Time between source generation is typically around 2 to 3 minutes and can take longer depending on terrain and accessibility of source points.

A Typical Staging Area



Data Acquisition

Source point recording activities including both Vibroseis and shothole will progress from the southern end of the project, recording each swath in an east to west direction and progressing northward until recording operations are complete. Field logistics, as determined by the geophysical contractor, may result in certain variations of these procedures and BLM will be informed of any significant changes.

The recording truck containing the command and control equipment for personnel communications, data collection and trouble shooting can usually be located on an existing road or trail. Source generation for the vibrator and shothole recording as well as management of the active geophone array will be centralized in this location.

Approximately 30 crewmembers will conduct operations for 10 to 12 hours per day. Crewmembers will be organized into field groups of 4 to 6 personnel. These groups will operate at intervals of 0.5 to 3 miles separation throughout the project area. A troubleshooting crew of 3 to 5 individuals will repair any line problems that may arise during the recording operations. Troubleshooting operations will

be done in pickup trucks on existing roads and trails, and with ATV's or snowmachines on the receiver and source lines. Crewmembers will carpool daily to the project area in the morning and return to Steamboat, Colorado in the evening. GRER will cooperate with BLM to determine ingress/egress procedures necessary to minimize the effect of geophysical survey activities on recreational interests in this area such as may be present during winter operations.

Support Operations

All equipment, including the drills, will be initially brought to the project area by 4 or 5 transport trucks/tractor trailers as part of project mobilization. GRER will consult with BLM and local land owners to identify potential staging areas at convenient locations throughout the project. All equipment and vehicle storage will be located within the perimeter of these staging areas. Smaller staging areas of less duration will be located along trails and roads throughout the project and will be used to expedite the placement and retrieval of equipment. The explosives and blasting cap magazines will be temporarily located on non-federal property (in accordance with BATF regulations) to minimize public access and to optimize public safety. The helicopter will typically land at these staging areas; however, it may also land adjacent to existing road and trail intersections to pick up or drop off equipment or personnel.

CLEANUP AND DEMOBILIZATION

After recording the source points the recording equipment will be retrieved on foot and bagged, reversing the placement procedure, and moved to staging by helicopter in preparation for demobilization. The task of project clean up will proceed concurrently with data acquisition. All pin flags, flagging, lathe and related seismic debris will be gathered daily as the field groups and crew members complete data-acquisition portions of the project. The debris will be collected at points on roads or trails and transported by vehicle or helicopter to staging areas where personnel will organize materials, handle equipment, and dispose of used/unusable materials. Materials disposal will occur at approved facilities or local land-fills. Lines will be revisited once snow has melted to insure the project has been reclaimed according to the Conditions of Approval.

SURFACE USE

Surface use associated with the proposed project would result from drilling shotholes, conducting vibroseis operations, using existing roads and trails, traveling cross-country along source lines and using previously cleared areas for storage and staging. Access within the project area may be limited by snow depth as well as moderate to steep terrain. Based on winter operating conditions over snow and frozen ground, disturbance occurring as the result of the geophysical survey operations will be negligible once snow has melted and frost depths recede. Evidence of this geophysical survey will not be discernable such that surface disturbance can be quantified.

BLM AUTHORIZED OFFICER

This Statement of Operations is provided as supplement to the Notice of Intent submitted November 30, 2007, for the benefit of the BLM Authorized Officer of the Kremmling Field Office. We request that the copies be distributed to any and all resource specialists who may be involved in this project or have need to comment on these activities. Should any questions arise regarding the project, please contact me at cellular 713 806 1956 or GRER Project Manager, Dave Filler at 406 250 0008.

Thank you,

Green River Energy Resources, Inc.

Michael D. Simons, General Manager

Exhibit – A

Legal Descriptions of Project Area by Surface Owner

<u>BLM</u>

Т	8	Ν	R	80	W					
						Sec	4	E2NE4		
						Sec	4	NE4SE4		
						Sec	19	NW4		
						Sec	21	S2SE4		
						Sec	28	E2		
						Sec	28	E2NW4		
						Sec	28	SW4NW4		
						Sec	31	NW4NE4		
						Sec	31	NW4		
						Sec	31	N2SW4		
						Sec	31	N2SW4		
						Sec	32	S2SW4		
						Sec	32	NW4SE4		
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						Sec	10	SW4NE4		
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						Sec	10	SW4NW4		
						Sec	10	NW4SE4		
						Sec	10	N2SW4		
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						Sec	4	NW4
						Sec	4	S2S2
						Sec	4	NW4SE4
						Sec	4	N2SW4
						Sec	5	All
						Sec	6	All
						Sec	7	All
						Sec	8	All
						Sec	9	All
						Sec	16	All
						Sec	17	All
						Sec	18	All
						Sec	19	NE4
						Sec	19	S2
						Sec	20	All
						Sec	21	N2
						Sec	21	N2S2
						Sec	21	S2SW4
						Sec	28	NW4NW4
						Sec	28	SW4
						Sec	29	All
						Sec	30	All
						Sec	31	E2NE4
						Sec	31	SW4NE4
						Sec	31	N2SE4
						Sec	31	SW4SE4
						Sec	31	S2SW4
						Sec	32	N2
						Sec	32	N2SW4
						Sec	32	S2SE4
						Sec	32	NE4SE4
						Sec	33	All
Т	8	Ν	R	81	W			
						Sec	1	SE4
						Sec	2	N2

						Sec	2	SW4
						Sec	2	E2E
						Sec	3	SE4NE4
						Sec	3	NW4
						Sec	3	S2
						Sec	10	E2E2
						Sec	10	NW4NE4
						Sec	10	NW4NW4
						Sec	10	S2SW4
						Sec	10	SW4SE4
						Sec	11	E2
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Т	8	Ν	R	81	W	Sec	11	NW4NW4
						Sec	11	W2SW4
						Sec	12	All
						Sec	13	All
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						Sec	15	All
						Sec	22	All
						Sec	23	All
						Sec	24	All
						Sec	25	All
						Sec	26	All
						Sec	27	S2
						Sec	27	S2N2
						Sec	27	N2NW4
						Sec	27	NW4NE4
						Sec	34	NE4
						Sec	35	All