PROJECT DESCRIPTION
BOWIE PROPOSED COAL LEASE MODIFICATIONS
COC-37210 and COC-61209

Bowie Resources, LLC (Bowie) submitted an application on July 11, 2011 to the Bureau of Land Management (BLM) seeking to modify two of their existing federal coal leases. The proposed modification tracts are adjacent to the existing federal coal leases and if granted would allow expansion of the currently operating Bowie No. 2 mine. The BLM action is to decide whether or not to issue the modifications in response to the application.

Currently, Bowie operates the Bowie No. 2 Mine, which is an underground longwall coal mine just north of the town of Paonia, Colorado. Coal mining has been conducted in the North Fork Valley for more than 100 years. The Bowie No. 2 Mine has been in operation since November 1997 and is capable of producing approximately 5,000,000 tons of coal annually. The lease modifications would provide opportunity for a logical extension of the Bowie B-Seam workings beyond the current mine plan.

The need for this action is to provide access to federal lands and minerals for the extraction of the federal coal resource in accordance with 43 CFR 3432 (federal coal lease modification application) in order to prevent bypassing approximately 3.25 million recoverable tons of coal. The extraction of the coal resources is established by the Mineral Leasing Act of 1920, as amended by the Federal Coal Leasing Amendments Act of 1976 and the Federal Land Policy and Management Act (FLPMA) of 1976. Should the leases not be modified and the longwall panels not lengthened, it may become economically unviable and technically infeasible to mine the federal coal in the future resulting in a bypass of the federal coal resource..

The BLM is responding to the application to modify federal coal leases and is preparing an EA. The preparation of the EA, in accordance with the National Environmental Policy Act (NEPA), was initiated when Bowie submitted their application to modify their existing federal coal leases. The purpose of the EA is to evaluate both of the proposed modification tracts in conjunction with the resulting expanded development and mine operations which would allow the continued production of federal coal at, or near, current levels for approximately one additional year.

The proposed lease modifications would add approximately 505.08 acres to existing coal leases COC-37210 and COC-61209. The existing leases are held by Bowie, and will be mined from the Bowie No. 2 Mine near Paonia in Delta County, Colorado. The lease modifications are located on lands in which BLM manages a portion of the surface (174 acres on COC-61209) and all of the mineral estate (COC-37210 and COC-61209). See Map 1, attached. The following is the legal description of the proposed lease modifications:

COC-61209 Modification

Township 13 South, Range 91 West, 6th P.M.

Section 5: SWNW, NWSW, SWSW, NESW, S/2NESENW, S/2SENW, S/2NWSENW, SWSWNE, S/2NWSWNE, W/2NWSE
Section 6: SENE

containing 265 acres more or less

COC-37210 Modification

Township 13 South, Range 92 West, 6th P.M.

Section 1: S/2NE, S/2NW, S/2 Lot 1, S/2 Lot 2, S/2 Lot 3, S/2 Lot 4
containing 240.08 acres more or less

Bowie is currently mining the first of nine longwall panels west of Terror Creek. The longwall panels run in a north-south direction. Following the nine longwall panels, Bowie plans to mine four longwall panels, which run in an east-west direction. The four east-west panels are located north of the nine north-south panels. The lease modifications would increase the length of three of the four east-west longwall panels by a total of nearly 8,000 feet. Without the lease modifications, approximately 8,000 feet of longwall coal would be permanently by-passed. This amounts to approximately 3.25 million recoverable tons of bypassed coal. A typical belt conveyor would be used for transportation of the coal to the surface.

A BLM decision to issue the federal coal lease modifications is a necessary requisite for mining but is not in itself the only enabling action that would allow mining. The most detailed analysis prior to mine development would occur after the lease is issued, when the lessee files an application for a mining permit and mining plan approval, supported by extensive mining and reclamation plans with the State of Colorado, Division of Reclamation Mining and Safety (DRMS).

Gob vent boreholes (GVBs) would be located on the modification tracts. GVBs are utilized as a mine methane drainage technique. Prior to mining, vertical and directional holes are drilled from the surface to within a short distance above a longwall panel. Typically the GVBs do not produce methane gas in any quantity until after the longwall face has mined past the boreholes and the overburden has collapsed to form highly fractured rocky material, or gob. The GVBs become conduits through which methane released into the gob exhausts to the surface before it can inundate the essential ventilation air courses in the mine.

GVBs would ventilate potentially explosive gases from the mine in order to provide a safe environment for miners working underground. Venting of the potentially explosive

gases for the safety of the miners is the overriding consideration. The issuance of the federal coal lease modifications would not generate any additional drilling activities from the surface.

If BLM issues the federal coal lease modifications, Bowie would need to construct roads and pads to four GVB sites on the proposed lease modification tracts. Two pads would have a second directional hole drilled from them to avoid construction for two additional pads. A single GVB on existing lease COC61209 would also be required as a result of Bowie obtaining the lease modification tracts. With or without the lease modification tracts, Bowie would drill six GVBs on existing leases. Any and all of the proposed GVBs would be submitted by Bowie as part of mine plan revisions in the future and would receive site-specific agency review and would be approved as part of mine plan revisions. Surface disturbance would be temporary and would be limited to approximately 10.1 acres. See Map 2, attached.

Access to the GVBs would be from improved jeep trails or new roads. The work required to improve the roads would include widening, smoothing the surface, and in some cases reducing steep grades. It is assumed there would be a 12-foot wide incremental disturbance to improve existing roads (i.e., jeep trails). The total additional disturbance for improving existing roads would be approximately 2.2 miles or 3.2 acres.

New roads are constructed to handle drill rigs, crews and support equipment. Because of the potential for cut and fill slopes, it is assumed there would be a 50-foot wide disturbance for new roads. The total disturbance from new roads would be approximately 2.3 miles or 3.3 acres. The drill rig will be a truck mounted DR24 type capable of both rotary and core drilling. Supporting that rig will be a flatbed supply truck, a 3,000 gal water truck when needed, two crew trucks for transportation, and an E-log truck which would run digital logs for each hole.

The following design and reclamation features would apply to access roads:

- New roads and other linear facilities would be located and constructed to follow the contour of the landform or to mimic lines in the vegetation (avoiding straight roads and steep slopes).
- Road beds would be a maximum of 12 feet wide.
- Cutting and filling, and crowning and ditching, of roads would be kept to the minimum necessary.
- Interim reclamation would include partially revegetating roads in order to reduce the amount of bare ground created during construction and drilling activities.
- After there is no longer a need for mine ventilation (1 to 3 years from the time construction is completed), the new road segments would be reclaimed, recontoured back to their original contour and rough texture in order to match the "texture" of the surrounding landscape, and revegetated in accordance with BLM direction, and using a BLM-approved seed mix.

The following design features would apply to drill pads:

- Drill pads would be approximately 0.92 acre in size (200 feet by 200 feet).
- Construction of each pad would proceed by first selectively clearing brush/vegetation, removing the topsoil and stockpiling it for use in later reclamation, and leveling the subsoil to form a flat pad.
- Drill pads are designed to prevent or diminish overland flow from entering the site during precipitation events. Pad sites would have berms on all downslope portions and pads would be sloped to drain all spills and site precipitation into the mud pits.
- Impermeable ground cloths would be used under the drill rigs and petroleum product containers to contain minor petroleum leaks. In the unlikely event of a petroleum spill, it would be contained and cleaned up using standard hazmat procedures. The spill would also be reported to the BLM authorized hazardous material coordinator.
- Light shields would be installed to minimize fugitive light and ensure a dark sky condition during nighttime drilling activities. Refueling of equipment would not occur within 100 feet of water bodies.
- Reserve (mud) pits would be constructed on the prepared pad and lined with a plastic liner. The mud pits are small, generally 10 feet wide by 40 feet long by 10 feet deep. Biodegradable synthetic polymer drilling fluids or bentonite would be used and would be contained in the reserve pits until dry. Once the pits are dry, they would be filled with reserved soil. If necessary, pits would be pumped out to reduce their content and insure that overflow does not occur. Pumped fluids would be hauled to a Colorado-approved facility for disposal.

The following would apply to water delivery to drill pads:

- Water would be hauled to GVB-B21A, B21B, B21C, B22A, B22B, and B22C from the Stevens Gulch well field along Stevens Gulch Road, which is an existing road.
- Water would be pumped to GVB-B19A, B19B, B20A and B20B from a point just upstream of the confluence of East and West Terror Creeks. A self-contained pump would be placed in a sheet metal trough capable of containing the full volume of the engine oil and fuel supply used for the pump in case of a leak. Two- to three-inch high-pressure pipelines would be laid alongside the existing, upgraded and new roads. This would reduce the use of water trucks and, therefore, potential sediment caused by fugitive dust, and increased road maintenance requirements.
- Pumping would occur at a time of the year when water flows can be low, and pumping rates would not exceed 5 gallons/minute.
- Cofferdams made of heavy duty plastic would be used to pool water where pump intakes would be located. The cofferdams and pump intakes would be screened

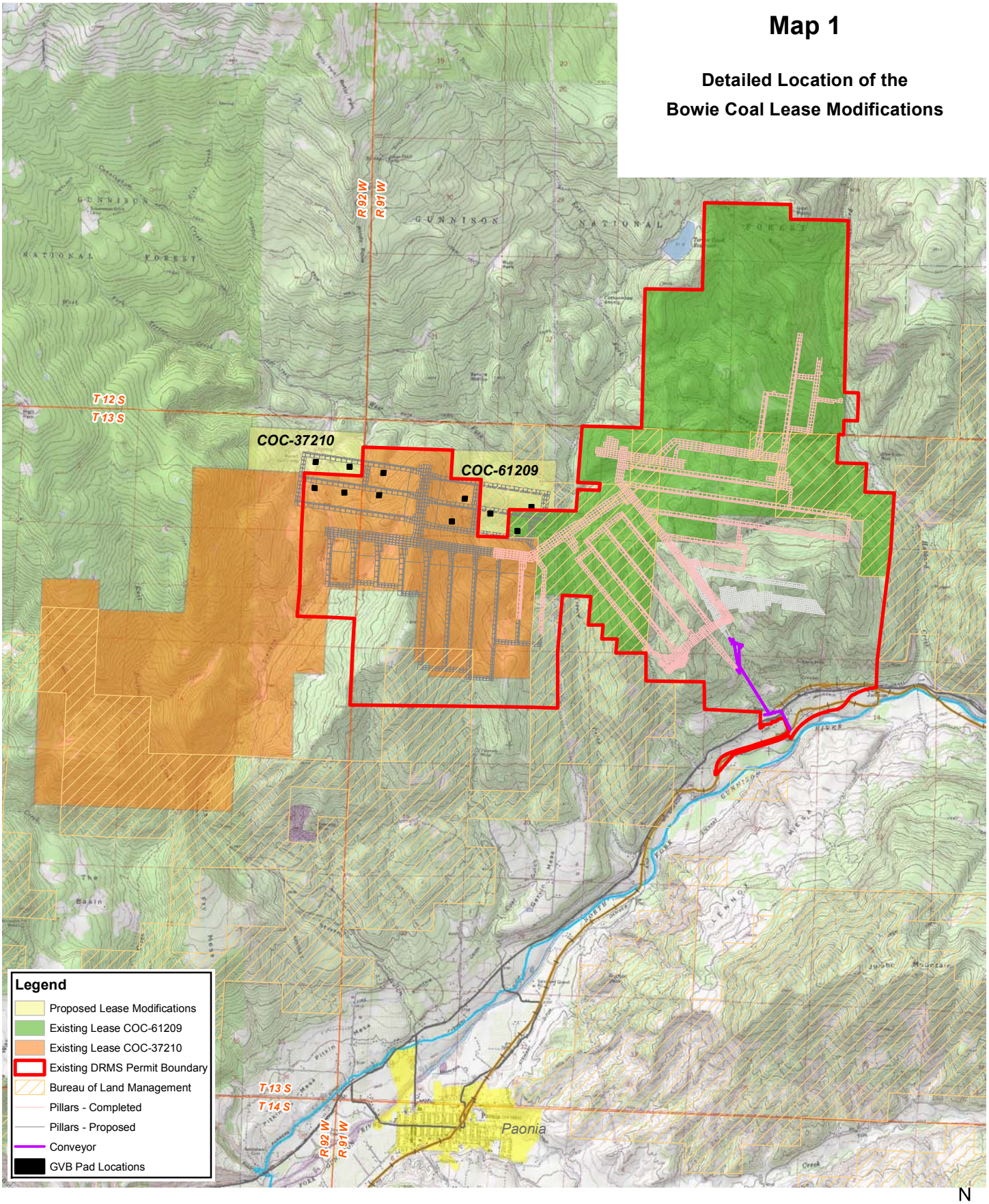
using ¼ inch or finer mesh to preclude fish from passing through. Further, the low pumping rate would reduce the chances that any fish would be held against the screen while a pump is operating.

- As water is required for drilling activities, a call on Bowie's water rights would be made to replenish what is taken for drilling.

All of the GVBs would be drilled at approximately the same time over a period of a few weeks before mining each longwall panel. During the time the longwall panel beneath the GVBs was being mined, and for approximately 1 year after the completion of mining, the GVB pump would require weekly inspection and maintenance.

Map 1

Detailed Location of the Bowie Coal Lease Modifications



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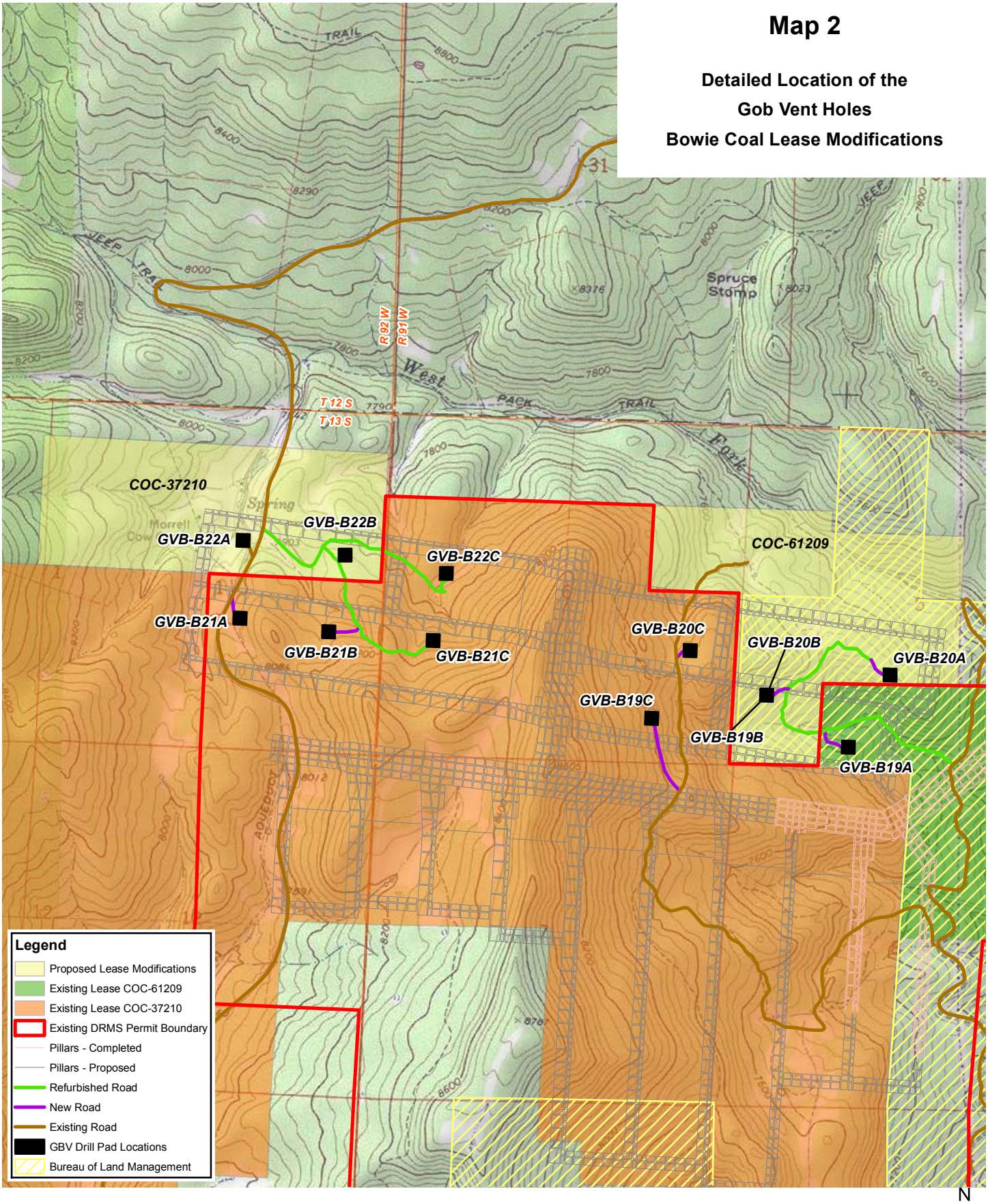
Map 2

Detailed Location of the
Gob Vent Holes
Bowie Coal Lease Modifications



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