

2017

Runners Manual

July 14-16, 2017

Part 2 Runner Information

Silverton, Lake City, Ouray, Telluride
Counter Clockwise Direction

A problem worthy of attack
Proves its worth by biting back

Attributed to Paul Erdős

Version 2017.0

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Hardrock 100 Mountain Run

2017 Course Information

By John Cappis with input from Charlie Thorn

INTRODUCTION

This section of the runners package will briefly discuss the philosophy for the routing and marking of the course, review the course dedication, present some general information about the places along the course, discuss course marking to reinforce what is already put into the package, review the history of the course since the start of the Hardrock run, and present a detailed description of the course for the counter-clockwise direction.

PHILOSOPHY

The course is designed to bring the runners into to the four major mining centers of the San Juan Mountains: Silverton, Telluride, Ouray, and Lake City; while staying as much as possible on trails and abandoned roads originally created by the miners to give the participant the maximum feeling of wilderness. As noted in the information you received with the entry form for this run, this course offers a graduate level challenge for endurance runs. The course is designed to provide extreme challenges in elevation, steepness, and remoteness. The extremes in elevation allow you to travel through four life zones. Care is taken to route the course so the runners exert a minimum impact on the environment. Mountaineering, wilderness survival and wilderness navigation skills are as important in this event as your endurance. The remoteness and wild nature of the course have dictated that [Charlie Thorn](#), Course Marking Director, and John Cappis use a different marking approach than you may have encountered at other runs. **It is expected that individual runners have enough knowledge about the course that they can follow it without markers. You need to decide how to best equip yourself to meet this requirement. Methods that others have used include spending as much time as possible on the course before the run, possibly with the group that installs the markers, or relying on the written description and maps along with their navigation skills.** The markers put into the field should be considered as minimal navigation aids. For first time runners who are used to courses that are marked with a nearly continuous set of ribbons and/or glow sticks from start to finish, be prepared to change your expectations. There are sections where the runner will go for several miles without seeing a marker. Marking will be elaborated more later. **Each entrant must be willing to accept individual responsibility for being able to negotiate the course regardless of number or location of markers.**

DEDICATION

In the 1860s, hardy prospectors began to come into the San Juan Mountains to search initially for gold but soon also silver. The initial focus was in the vicinity of Bakers Park (current location of Silverton) but soon spread to the surrounding area. The establishment of permanent settlements in the San Juan Mountains was well underway in the 1870's when Silverton was incorporated. By the end of the nineteenth century there was a veritable army of prospectors climbing among the lofty crags in hopes of making a fortune mining the minerals hidden between the peaks and in the valleys. Most of the towns, cabins, stamp mills, aerial tramways, tipples, smelters, and adits the miners built or dug have succumbed to the ravages of the elements. Large piles of unproductive rock (tailings) mined from the steep hillsides are often the only remaining visible evidence that once here labored men with dreams of finding buried wealth. Foot trails, burro trails, wagon roads, and railroads were constructed for transporting working materials to the mining sites and hauling ore from the mines to the markets. This run follows routes laid out by the miners and is dedicated to their memory.

GENERAL INFORMATION

The HARDROCK 100 is a mountain run that passes through some of the most beautiful and rugged mountains in the world. It has been designed to give the runner a solid overview of the various types of terrain in the area. In places you will be on nearly vertical cliffs with the trail being a shelf blasted across their faces. In contrast,

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you will encounter high open valleys with grassy meadows in the bottom and large stands of uncut evergreens along the sides. Elevation changes range from a high of 14,048' to a low of 7,680'. The total vertical climb and descent, accumulated while crossing thirteen ridges over 12,000' in elevation, is about 66,000 feet. Much of the route is at elevations above treeline and on a clear day, views for distances over 50 miles are common. At this time of year there will be water everywhere giving rise to the early blooming wild flowers and creating spectacular falls.

The 2017 course will start and finish at the Silverton High School in Silverton, Colorado and will be run in the counter-clockwise direction. The route will mimic that of the 2015 run.

Enclosed in this section of the manual is [a table of cutoff times](#). The cutoff times for stations in the early and middle stages of the run are longer than the historic 48-hour cutoff times derived from runners' performances in previous years. This is to allow runners the opportunity to sit out a thunder/lightning storm and still have an opportunity to finish. The two columns you should use to anticipate your pace are the historic 48-hour and the absolute cutoffs. The historic 48-hour times are based on a weighted average of runners from the previous runs who finished between 47:30 and 48:00 hours. The times given are the times for arriving at the aid station and have stay times at previous stations included. The absolute cutoff times are based on a steady pace weighted for difference in uphill and downhill pace. The historic 48-hour projection has always shown a slowing in pace as the run progresses. Those runners who plan to be close to the 48-hour limit should keep in mind the difference between the historic finish time paces and the absolute cutoffs when deciding when to reach each aid station. There are rare instances when runners have proven it is possible to be close to the absolute cutoffs at the early stations and still finish under the 48-hour cutoff, but these are really the exception rather than the rule.

As you read the route description, you will find many references to the bruin family. There are now three Bear Creeks and a Grizzly Gulch on the course:

1. Silverton Bear Creek between Mineral Creek crossing to Putnam Basin.
2. Telluride Bear Creek between Wasatch Saddle and the town of Telluride.
3. The drainage referred to as Ouray Bear Creek between the Oh Point Road on Engineer Pass and the Uncompahgre River. The ruins on the shelf part of the Ouray Bear Creek are the remains of the Grizzly Bear Mine.
4. The route between the summit of Handies Peak and Burrows Park is via Grizzly Gulch.

Incidentally, there is still the possibility of seeing a real bear on the course as has now been proven in several of the runnings including one in 2007.

Every attempt will be made to follow the course as presented in the mile-by-mile description, but changing snow conditions and/or who knows what may necessitate a last minute change. Please be prepared to accept such changes up to and including run day. Every attempt will be made to render a decision based on runner safety and ability to field aid stations of whether to hold the run or not. It may be that the snow will be in such a condition that the runners can safely negotiate it, but it will be impossible to field all the aid stations. One possible result of this last scenario is that runners will need to carry their own supplies for longer distances on some legs.

This is a *dangerous* course! In addition to trail running, you will do some mild rock climbing (hands required), wade ice cold streams, struggle through snow which at night and in the early morning will be rock hard and slick and during the heat of the day will be so soft you can sink to your knees and above, cross cliffs where a fall could send you 300 feet straight down, use fixed ropes as handrails, and be expected to negotiate the course with or without markers. See philosophy above. Much of the time you will have wet feet and it is recommended you have dry shoes in your drop bags and dry socks in your pack. Feel free to include any specialized equipment such as ice axes, crampons, snowshoes, or skis that you are willing to carry between drop bag stations as part of your paraphernalia.

As part of the course description package you will find the following:

1. [A counter-clockwise Hardrock 100 elevation profile graph.](#)
2. [A short glossary of "jargon" words.](#)

3. [A table of the aid station opening and cutoff times](#) along with [a table containing a summary of the legs](#) between the major mining camps of Silverton, Telluride, Ouray and Sherman (representing Lake City). There will be no absolute cutoff times at Maggie Gulch, Pole Creek, Burrows Park, Engineer, Governor Basin, Kroger's Canteen, or Putnam Basin.
4. [A mile-by-mile description of the course](#) with mileage in brackets and the elevation (in feet). All mileage used was obtained by a combination of ground wheel measurements and map measurements and totals 100.5 miles. Accuracy of total mileage is estimated to be within +/- 2 miles. Cumulative vertical climb and descent is given as 66,100 feet and should be regarded as the lower limit for the course. In regard to route designations for reference to maps, several designation schemes are used. The listings in the trail description are as follows: the [Drake Map](#) designation, followed by the USFS designation if different from Drake, and finally by the Colorado Atlas and Gazetteer designation if different from the other two. FR and TR are forest service designations meaning forest road and forest trail while RD is the road designation obtained from the [Colorado Atlas and Gazetteer](#). See the glossary for an explanation for single words, such as acrophobia, listed for specific locations.

A [Drake Mountain Map](#) with the route marked can be a useful tool for the run.

COURSE MARKING

The primary marking for the course is a specially designed marker. The marker consists of metal rod fitted with a metal plate that is covered with a reflective label. The major markings shown on each side of the label are shown below:



The color of the reflectors varies and may be blue lettering on a yellow background, black lettering on a silver background or red lettering on a silver background. The markers were first used starting in 1993 and have proven to be relatively impervious to the 1992 problem of the marmots (low grade ground hogs) eating the flags. A hog nose ring (idea from John Dewalt) is used to attach the plates to the rod. This allows the plates to move in the breeze making them easier to see. In addition to the metal reflectors, fluorescent orange plastic flagging will be added to the rods. This aids greatly in locating the markers during daylight hours when the markers tend to blend with the vegetation. A minimum length of plastic flagging is used because too long a length tends to get tangled in the mounting ring and keeps the plates from moving. It is suggested that you take the time upon your arrival in Silverton to go and test your light on one or more of the markers to be sure the light will adequately reflect from it.

Markers are stuck in the ground or, in a very few cases, mounted on signs or posts. Every attempt is made to always place the metal markers so they will be on the left side of the runner. Other markings, such as white chalk lines, may be used in towns and on major roads. Besides marmots, these markings may be removed by humans or, especially in the Pole Creek area, by elk. **It is expected that you will be able to negotiate the course either with or without markers.** Map studies and training on the course are two ways of obtaining this ability. Course marking begins two weeks before the run and is finished by the Tuesday prior to run day. You are welcome to join any or all of these sessions. A schedule for marking is included in your packet.

The entire course is not marked with a continuous set of trail markers. On very good trails, such as the Cataract Lake section from Sherman to the waterfall and in Grizzly Gulch from timberline to Burrows Park, there will be few or no markers. Otherwise, on good trails markers are placed at about ¼-mile intervals. For road sections, like the Camp Bird, Engineer Pass, and Cinnamon Pass roads, markers are normally only placed at intersections and it may be a couple of miles between markers. For cross country sections where all runners are expected to pass in daylight, markers between intersections on secondary trails and cross country are placed at about 50 yard intervals. For night sections, this distance is reduced to be about the range of a good light. However, the storm that caught the second night runners in 2000 left clouds hanging on the route that severely limited the runners lights from picking up the next markers. Again, emphasize the importance of knowing the course and being able to navigate it without needing makers as a guide. Intersections are marked with multiple markers placed at five to ten yard intervals.

Including the Silverton start/finish, the plan is to have fourteen manned aid stations on the course. All are indicated on the elevation profile in capital letters and on the trail map with an A. Those followed by a C on the elevation profile will be crew access stations. Telluride, Ouray, Grouse and Sherman will be major medical stops, i.e. provide the most assistance for medical needs and easier transport for more professional care. Chapman Gulch, Telluride, Ouray, Grouse Gulch, Sherman, and Cunningham Gulch will be locations for bag drops and crew access. Pole Creek, Engineer, Kroger's Canteen, and Putnam Basin are stations that are set up by packing the supplies to them, either on horses or in backpacks, and may have limited offerings for food and definite limitations on getting you evacuated for medical attention. Helicopters have been sent to Pole Creek three times in the history of the run to evacuate a sick or injured person.

The USGS 7.5 minute maps containing the route are listed below. Other useful maps include the [Drake Map of the Mountains of Silverton, Telluride, and Ouray](#), USGS 1/50000 county maps for San Juan, Hinsdale (2 sheets), Ouray (south sheet) and San Miguel (eastern sheet) counties of Colorado, U.S. Forest Service maps for Uncompahgre, San Juan, and Rio Grande National Forests, and the book "[Colorado Atlas and Gazetteer- Topographic Maps of the Entire State](#)". Familiarity with the route, even from an armchair, will greatly increase your confidence and enjoyment of the run. Copies of the Drake Mountain Map are available for purchase from [Silverton Grocery](#), the [San Juan Mountains Association](#), [Buckskin Bookstore](#) (Ouray), [Maria's Bookshop](#) (Durango), and other local shops.

USGS 7.5' QUADRANGLE MAPS

Silverton	Howardsville	Pole Creek Mountain
Redcloud Peak	Handies Peak	Ironton
Ouray	Telluride	Ophir

COURSE HISTORY

In the fall of 1991, Gordon Hardman placed a notice in [Ultrarunning Magazine](#) that in the summer of 1992 there would be a 100-mile run in the San Juan Mountains of southwestern Colorado. John Cappis contacted Gordon and asked what his thoughts were for a course. The general approach was to bring the route as close as possible to Silverton, Lake City, Ouray, and Telluride, the four major mining towns of the San Juan district. The original

thought was to change the start/finish between towns each year to add variety to the run. Cappis volunteered to try and lay out a course, keeping in mind the idea of connecting the towns while at the same time selecting routes that would be on trails as much as possible. By January of 1992 a route developed entirely from map studies was available. Charlie Thorn then became active in the process and by April the necessary government permits were obtained. In June, Charlie, Rick Trujillo and Cappis spent many days making sure the chosen routes were feasible and making field adjustments, including addition of the Dives Little Giant section only one week before the run. The course was run in the clockwise direction with a nominal length of 98.8 miles and a cumulative vertical gain of 29684 feet. Start and finish was in the Silverton Memorial Park with a large tent serving as run headquarters. The major points on the first course were the Shrine Road, Highway 550, South Mineral Creek Road, Ice Lake, Island Lake, Grant Swamp Pass, Chapman Gulch, Oscar's Pass, Wasatch Basin, Telluride Elks Park, Mendota Pass, Virginius Pass, Governor Basin, Ouray Box Canyon Park, Uncompahgre River Dam, Engineer Pass, Grouse Gulch, American-Grouse Pass, Handies Peak, Grizzly Gulch, Burrows Park, Cinnamon Pass Road, Sherman, Cataract Lake, Main fork of Pole Creek, West fork of Pole Creek, Maggie Gulch at Stamp Mill, Buffalo Boy Ridge south approach, Rocky Gulch, Stony Pass Road, Cunningham Gulch, Dives Little Giant, Arrastra Gulch, State Route 110, and the Finish. After this first year, it was decided to keep the start/finish permanently in Silverton, reversing directions every running of the event.

In 1993 the course was run in a counter-clockwise direction and the nominal length was 100.6 miles with an accumulative vertical gain of 29,849 feet. The only major course change that was made from the 1992 course was moving the Ouray Aid Station from the Box Canyon Park to Fellin Park near the swimming pool.

1994 saw a number of major course adjustments for a clockwise running, resulting in a length of 101.1 miles with 32,698 feet of accumulative climb. The start/finish was moved to the old Kendall Mountain Ski hut. After the 1993 run, Ulrich Kamm purchased a number of old maps and books of the Silverton area. In them he discovered a potential route for bypassing the South Mineral Creek Road. Subsequently, John and Charlie found the trails Ulrich advocated and adopted the Silverton Bear Creek-Porcupine Creek-Kamm Traverse routes. This necessitated that some other major adjustments be made to the course in order to stay close to the 100-mile distance. The first adjustment was to use the original Island Lake trail from lower Ice Lake Basin, eliminating the need to go to Ice Lake. The second was to adopt a route on Handies Peak that required an out and back leg from the Boulder/American saddle to reach the summit. After returning to the saddle, a combination of animal or old mining trails were followed along the southwest ridge of Handies Peak then along the Boulder Gulch stream to Cottonwood Creek where a seldom used jeep road is followed to Sherman. This eliminated the need to be on the very popular Cinnamon Pass Road. Other changes that were made included bypassing the Uncompahgre Dam at the request of the owner, inserting the roped river crossing across the Uncompahgre River, and substitution of the beaver pond trail section from Arrastra Gulch to the Finish for Highway 110.

After canceling the 1995 run because there was too much snow, 1996 became a counter-clockwise year with a course of 101.3 miles and 33,008 feet of climb. Safety and environmental impact concerns led to a modification of the course between the Buffalo Boy Tram Shed and Maggie Gulch. This consisted of moving the crossing point farther north on the ridge then using the trails and jeep roads past the Little Martha Mine. The Maggie Gulch Aid Station was moved to the stream crossing on the Little Martha Road. This was the year the Telluride Aid Station was moved to the town park with modification of the routes for getting into and out of town.

In 1997, the advertised distance for a clockwise run was still 101.3 miles with 33,008 feet of climb, but a modification of the course during marking probably changed these values. A large snow cornice was hanging above the Little Martha Mine valley in Maggie Gulch, so rather than expose the runners to this possible avalanche, the route was redesigned to follow the Crystal Lake Trail and the ridge between Crystal Lake and the Little Martha Mine valley. Another change was the adjustment on the west side of Handies Peak to use the newly reconstructed BLM trail that passes near Sloan Lake, thereby reducing the potential environmental impact on the fragile tundra area. The final change came with the development of the Nute Chute by Silverton runner Chris Nute to follow the Silverton-Ironton Railroad bed instead of Highway 550.

In order to eliminate the out-back section to reach the summit of Handies Peak, in 1998, the up-Chuck ridge route was adopted between Boulder Gulch and Handies Peak. This consisted of switching from the southwest ridge of

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Handies Peak to the southeast ridge for the 1998 counter-clockwise run. The identical course was used in 1999 except in a clockwise direction. The 1998 distance was listed as 101.3 miles with 33,015 feet of climb, but after rechecking measurements for some sections of the course in 1999 this distance was adjusted to 101.7 with 33,065 feet of climb.

The year 2000 saw only one change to the course and this was on the up-Chuck ridge approach to Handies Peak. After the 1999 run, it was observed that there was a great potential for excessive damage to the alpine tundra on the steep section from Boulder Gulch to the southeast Handies ridge, particularly in the clockwise direction. Charlie had located a potential alternate route on game trails and an old mining trail to achieve the ridge. Subsequently, after walking this proposed route with a BLM official, it was adopted.

For 2001, there were no planned major changes in the route. However, in November of 2000, the Colorado Environmental Coalition filed a protest with the BLM that the Hardrock did not have a proper environmental assessment (EA) statement in place for the Wilderness Study Area (WSA) around Handies Peak. Since it would not be possible to get the proper BLM technical people in the field to assess the Boulder Gulch route before the 2001 run, it was decided to move the course to the Grizzly Gulch-Cinnamon Pass route for getting between the summit of Handies Peak and the Sherman aid station. It is our understanding the Grizzly Gulch trail was field certified by the BLM for an EA. Subsequently, to try and account for differences created by the Grizzly Gulch change, the aid station in Ouray was moved from the swimming pool to the Box Canyon Park parking lot. With these changes, the nominal distance was 100.3 miles with a climb of 33,082 feet. BLM officials were very cooperative in assisting us with meeting the requirements for obtaining a permit for 2001.

The run in 2002 was canceled because of the forest fires in the Durango area and the high fire danger throughout the entire course area. Just two weeks before the run, Run Director Dale Garland was watching the flames on Missionary Ridge working their way toward his house and was wondering if he would have to evacuate. In addition, the emergency services groups in areas around the course were very busy coping with the extreme fire situation and it was decided to cancel the run to help lessen the potential burden on these support groups. Subsequently, it was 2003 before the run used the same course as in 2001, but in a counter-clockwise direction.

For 2004 there were three major changes. (1) The aid station in Ouray was returned to the gazebo at Fellin Park instead of in the parking lot of the Box Canyon Park. This gave better crew access to runners and made it more convenient for aid station workers and radio operators. (2) The route from Burrows Park to Sherman was modified to reduce the amount of time runners must spend on the Cinnamon Pass Road by 1.5 miles. Working with BLM and private landowners, a cross-country route was adopted between the Sherman Overlook on the Cinnamon Pass Road and the bridge across Lake Fork of the Gunnison. (3) The route from Maggie Gulch to Cunningham was completely rerouted. It climbed Buffalo Boy Ridge south of the old route then followed a built trail under Canby Peak to Stony Pass. From Stony Pass the route went cross-country to a low point in the ridge east of Green Mountain. It then crossed into Green Mountain valley and followed it to an old mining trail into Cunningham Gulch. An unexpected surprise in the Green Mountain drainage in 2004 was the presence of a large herd of sheep with dogs.

The aid station location in Maggie Gulch and the route between the aid station and Maggie-Pole Pass was changed in 2005. The route between Buffalo Boy Ridge and Maggie Gulch adopted in 2004 meets the end of the road in Maggie Gulch. The aid station was relocated to this road end (the place where it started in 1992). The route was modified to follow the (old) Continental Divide Trail from its intersection with the La Garita stock trail just below Maggie/Pole Pass to just above the aid station/road end where going about ¼ mile along cross country/game trail was necessary. This eliminated about ¾ mile of jeep road from the course and made the overall corrected measured distance 100.4 miles and the vertical climb/loss 32,992 feet each.

At the last minute in 2005 a change was made to use a bridge across the Uncompaghre River that the Ouray Hiking Club had put into place. This move was initiated by the high water from snowmelt in the river that would have made the fording of the Uncompaghre too dangerous. For 2006 and 2007 the route was essentially identical to 2005 including use of the bridge over the Uncompaghre.

After the 2007 Hardrock, the [Ouray Trails Group](#), under the direction of Roger Smith, significantly improved the

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Ouray Perimeter Trail. That allowed the Hardrock to follow the newly improved Perimeter Trail from Camp Bird Road into the upper end of Box Canyon Park, cross a high bridge above The Box, enter a tunnel, and follow the trail down to Queen Street and then Oak Street on the west side of the Uncompahgre and north to the bridge into Fellin Park. The exit from Ouray included going south through Ouray on 2nd Street past the Box Canyon Park before climbing past the park to the next bridge. From there, runners picked up the Ice Park Trail that was followed all the way to the dam. The 2009 and 2010 courses were essentially identical to the 2008 course.

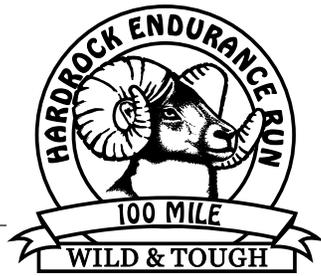
Because of threats of lawsuits between Gold Hill Development Corporation and Federal land custodians over access into Wasatch Basin and the extremely low risk tolerance of the Hardrock Board of Directors, the 2011 course was diverted from Wasatch Basin to Bridal Veil Basin, adding approximately 2.0 miles. The course run was approximately 102.5 miles. In addition, because of renovation at Silverton High School, the start and finish was moved to the [Kendall Mountain Recreation Center](#). Rodger Wrublik generously provided a large tent to house the festivities at Kendall Mountain.

The 2012 start and finish returned to the Silverton High School Gym as its renovations have been completed. In addition, a minimal aid station was provided at Burrows Park. Because ongoing land ownership disputes among Federal officials, local officials, and Gold Hill Development Corporation, the route was essentially that of 2011, including the Bridal Veil Basin diversion south of Telluride. Total distance was approximately 102.5 miles.

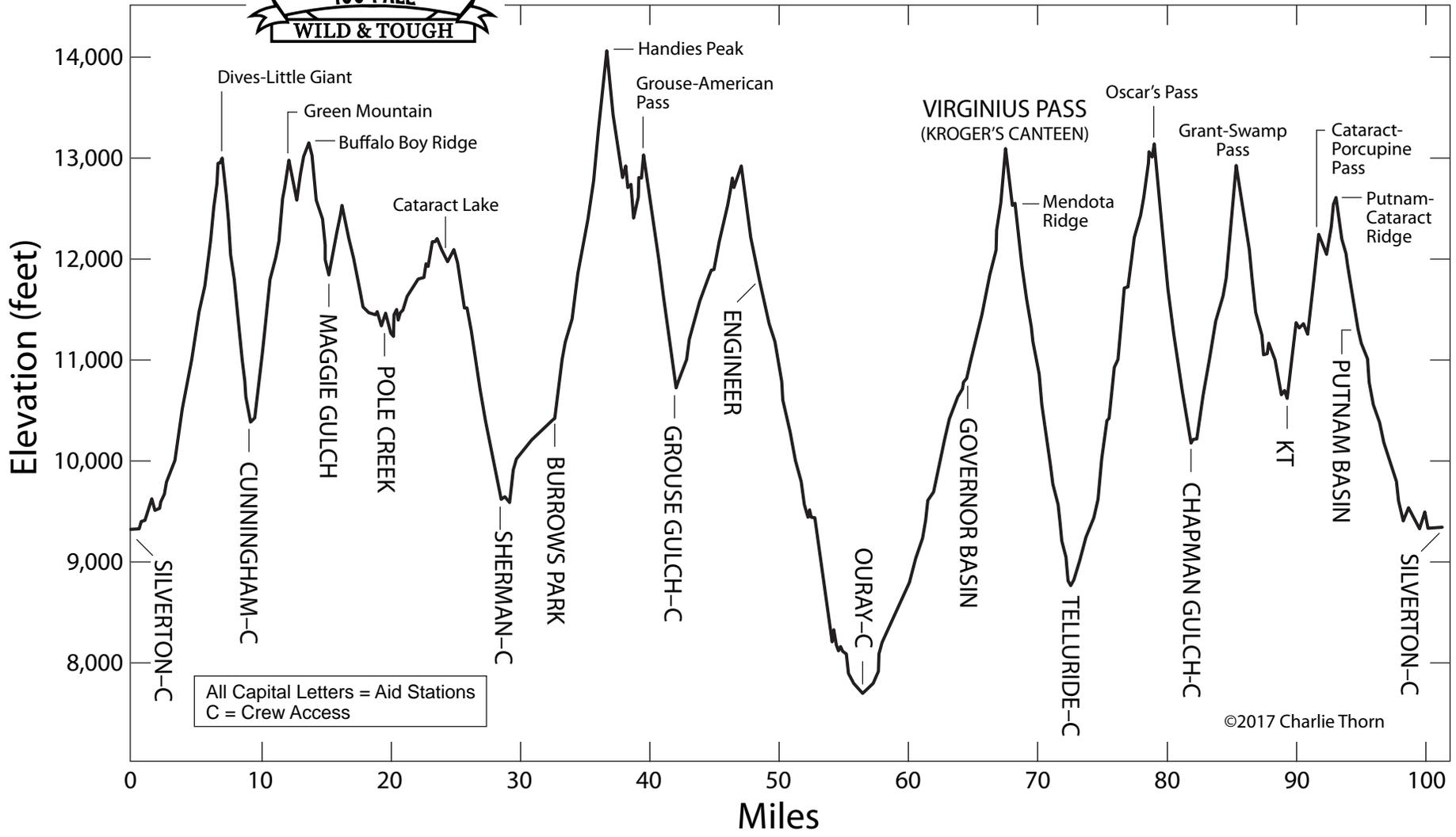
Because of the improved political climate associated with the Gold Hill Development Corporation land dispute in Bear Creek south of Telluride, the 2013 course returned to the Bear Creek/Wasatch Basin route abandoned after 2011. In May 2014, a court ruling dismissed all private claims related to access to Hardrock relevant routes in the Bear Creek/Wasatch Basin so no future routing problems are anticipated there.

Immediately before the 2014 running, a new Environmental Assessment was approved. The EA solidified the course as run in previous years and will have the effect of making future changes difficult. Thus, the 2014, 2015, and 2016 courses remained essentially unchanged from previous years with the exception that the KT aid station was moved 0.3 miles southwest from its old location at the intersection with where the Kamm Traverse trail left the Rico Road to its new location at the Bandera Mine road intersection (mile 11.1).

Other course changes may be necessary due to changes in land management policies, privatization of land, construction of buildings on routes previously used (this has happened and is happening near Telluride) or who knows what. Come and enjoy the course and take time to marvel at how the early hard rock miners built these roads and trails using hand tools. What a wonderful legacy they have given for us to be able to access and enjoy the San Juan Mountains.



Counterclockwise Course



HARDROCK 100

“JARGON” TABLE

acrophobia	An abnormal fear of being in high places. If you suffer from this and see it in the course description, you will not enjoy that location on the course.
adit	The entrance to a mine, also known as a portal.
bench	A natural occurring shelf across the face of a mountain which gives relatively flat areas to walk on. They are almost natural trails and were followed by the miners since they required less effort to construct a trail.
cairn	A pile of rocks that have been stacked together to provide a permanent trail marker. They may consist of only a few rocks sticking up a less than a foot, or somewhat elaborate rock towers several feet high.
cornice	A layer of snow that projects outward into open space from the top of a snow field. This makes it very difficult to climb to the top of the snowfield from below and offers the possibility of falling through it into space if walked on from above. Cornices cannot readily be seen from above, so use extreme caution when approaching the edges of snowfields, particularly on east or north facing ones.
exposure	Being in a position on the side of a mountain where a fall would cause you to slide or fall directly a long way down the mountain.
fall line	The path of natural descent from one point on a slope to another. Generally the steepest slope, or where water would most naturally tend to flow along.
fixed rope	Rope attached to the mountain to be used like a banister on a steep stairway. Used when a fall at that point could cause injury or death.
glissade	Intentionally sliding down a steep snow field. Standing glissade = using your feet like skis. Sitting glissade = sliding down on your butt. (long pants recommended).
hanging wall	A band of cliffs that occur between a “hanging valley” and a larger valley perpendicular to it. These were formed when a small glacier was tributary to a larger ice stream. The larger ice stream valley was cut deeper than the small glacier valley and when the ice melted the smaller tributary “hanging” valley was left perched above the main valley often with a cliff band to mark the junction.
head wall	A cliff or steep slope rising at one end of a glaciated valley.
ice axe	Mountaineering tool for cutting steps, helping control glissades, and stopping uncontrolled slides on steep snow fields. Useful in years with lots of snow.
jeep road	A road built with the intent of being traveled by a good four wheel drive vehicle and a gutsy driver. When a jeep road is called good, four wheel drive is probably not needed if the road is dry. Old or abandoned jeep roads are now closed to vehicles so the tread is really a trail. Some of these abandoned roads offer the toughest on trail footing you will encounter.

mill	The building where metal is separated from the rock by physical or chemical processes. The ground up rock not containing metal is discarded in large piles that look like misplaced beach sand called tailings.
mine dump	Pile of rock and dirt stacked on the hillside showing where miners had dug a tunnel and left the rock not containing minerals on the hillside. Generally much finer grain and lighter color than surrounding rock, tending toward yellow or red. Some people also refer to these as tailings (see definition for mill).
saddle	The low point in a ridge between two points or summits.
scree/talus	Loose rock and dirt on a very steep mountainside that has enough friction to stay where it is until you step on it, then it slides down the hill. Like trying to go uphill in mashed potatoes, you slide back 3/4 of a step for each step up. When going downhill it can be like riding a skateboard with the moving dirt being your wheels.
shelf trail/road	A trail or road that has been created across a cliff face and has exposure off the edge. On many of the shelf sections you can see the remaining sections of the drill holes that were put in so the rock could be blasted with dynamite.
snow field	Any accumulation of snow that is still on the mountain when the run is held. Those deposited by snow slides will be extremely hard allowing you to walk on them without sinking at all times of the day (they will be full of rocks and trees pieces that were carried down in the slide). Fields that were created by natural fall will be soft during midday, hard and slick at night.
switchback	A sharp turn in a trail (about 150 degrees), which allows the trail to traverse back and forth across the mountain face at a slope reasonable for a burro hauling mining supplies up and ore down.
traverse	To move laterally across the face of a mountain as opposed to directly following the fall line.
timberline	The elevation above which the trees cease to grow. In this area of Colorado, about 11,800' but it can vary considerably.
tipple	The wooden tower built over a vertical shaft where buckets can be raised and lowered on a cable. Best example on the course is in Little Giant Basin.
willow	A generic term used for the small bushes that grow profusely in stream bottoms and just above timber line. They can be very difficult to move through without a trail.

2017 Counter Clockwise Hardrock Aid Station

Opening and Cut Off Times

STATION	MILES	MILES	CLIMB	DESCENT	Avg Vert	OPEN TIME		LEADER	Avg 48 HOUR Pace		ABSOLUTE CUT OFF	
	Total	Leg	Feet	Feet	Ft/Mile	Day	Hour	Arrival	Day	Hour	Day	Hour
Silverton-Start	0.0	0.0	NA	NA	NA	Friday	5:00 AM	6:00 AM	Friday	6:00 AM	Friday	6:00 AM
Cunningham Gulch*	9.2	9.2	3840	-2770	718	Friday	7:00 AM	8:00 AM	Friday	8:50 AM	Friday	10:45 AM
Maggie Gulch	15.3	6.1	3160	-1700	797	Friday	8:30 AM	9:30 AM	Friday	11:40 AM		None
Pole Creek	19.6	4.3	960	-1340	535	Friday	9:15 AM	10:15 AM	Friday	1:00 PM		None
Sherman*	28.7	9.1	1390	-3210	505	Friday	11:00 AM	12:00 PM	Friday	3:45 PM	Friday	8:15 PM
Burrows Park	32.5	3.8	770	0	203	Friday	11:30 AM	12:15 PM	Friday	5:00 PM		None
Grouse Gulch*	42.1	9.6	4488	-4188	904	Friday	2:15 PM	3:15 PM	Friday	9:55 PM	Saturday	2:30 AM
Engineer	48.6	6.5	2310	-1220	543	Friday	3:45 PM	4:45 PM	Saturday	1:50 AM		None
Ouray*	56.6	8.0	455	-4575	629	Friday	4:45 PM	5:45 PM	Saturday	5:10 AM	Saturday	9:00 AM
Governor Basin	64.5	7.9	3148	-48	405	Friday	6:15 PM	7:15 PM	Saturday	8:50 AM	Saturday	12:30 Noon
Virginius Pass	67.7	3.2	2320	0	725	Friday	7:15 PM	8:15 PM	Saturday	11:00 AM		None
Telluride*	72.7	5.0	40	-4390	886	Friday	8:15 PM	9:15 PM	Saturday	12:50 PM	Saturday	4:45 PM
Chapman Gulch*	82.4	9.7	4500	-3090	782	Friday	10:15 PM	11:15 PM	Saturday	6:40 PM	Saturday	9:30 PM
KT	89.0	6.6	2920	-2450	814	Saturday	2:30 AM	3:30 AM	Saturday	11:15 PM	Sunday	1:30 AM
Putnam Basin	94.9	5.9	2425	-1455	658	Saturday	3:30 AM	4:30 AM	Sunday	3:20 AM		None
Silverton-Finish	100.5	5.6	324	-2614	525	Saturday	4:30 AM	5:30 AM	Sunday	6:00 AM	Sunday	6:00 AM

* Bag Drop/Crew Access

48 hour pace estimate is time into aid stations based on previous years' weighted average for those finishing over 47:30 hours.
Leader arrival time estimate based on a 23:30 hour finish.

Summary of Hardrock 100 Legs CCW

Leg	MILES	CLIMB	DESCENT	HWY	Auto Road	Jeep Road	Trails	X-Country	Avg Elev
	Leg	Feet	Feet	Miles	Miles	Miles	Miles	Miles	Feet
Silverton-Sherman	28.8	9350	-9020	0.0	0.8	3.5	20.1	4.3	11431
Sherman-Ouray	27.8	8023	-9983	0.0	4.9	5.4	15.5	2.1	11081
Ouray-Telluride	16.2	5508	-4438	0.2	5.1	5.2	5.3	0.4	10144
Telluride-Silverton	27.7	10169	-9609	0.0	0.6	2.2	21.2	3.7	11042
Totals	100.5	33050	-33050	0.2	11.4	16.3	62.1	10.5	11019

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**HARDROCK 100 MOUNTAIN RUN
2017 COUNTER CLOCKWISE COURSE DESCRIPTION**

[0.0] 9310	Silverton. High School. Start is in front of the gymnasium on 12 th Street. For counter-clockwise direction, face toward Reese Street (SE). Go one half block and turn left (NE) on Reese Street. Go two blocks, passing the official front porch of the Hardrock 100 (Charlie Thorn's house on your right). Turn right (SE) on 14 th Street. Cross Greene Street (the main paved street in Silverton) and continue on 14 th Street for about 0.4 mi., heading toward the Kendall Mountain Recreation Area. Between Greene Street and the Silverton Ski Hut, you will cross bridges over Cement Creek and the Animas River. Follow the road to where it ends at the base of the local ski run.
[0.6] 9310	Kendall Mountain Recreation Building. Angle left (ENE) on auto tracks and climb to trees where in about 0.15mi the tracks become trail. The first stream crossing is Swansee Gulch, which normally has a small bridge across it. Caution- the bridge and rocks at the streams edge may be covered with black ice. The trail continues NNE at a constant elevation (9400') until abruptly ending in a small parking area just above the Lackawanna Mill.
[1.0] 9400	The Lackawanna Mill is left and below you. Cross the upper edge of the parking area, cross a jeep road, and pick up the trail which continues NE. For the next mile there are a series of ups and downs, with willows and beaver dams to skirt. In some places the trail and side streams are indistinguishable from each other. The route is generally on a bench that parallels the Animas River and the direction of the route becomes more ENE. You can see CR-2 and the Mayflower Mill across the canyon to your left.
[2.3] 9520	The trail merges directly into a jeep road. Continue NE, passing to the right of a house and follow the road to the next intersection. Make a hard right turn (SSE) on jeep road and climb steeply to the right of a steel tram tower (9800'). At the tram tower, angle left (SE) and follow the trail over a pipe line designed to bring water out of Arrastra Gulch. There are a few pieces of pipe along the route. Cross the Arrastra stream just below a concrete diversion wall and follow jeep road E. (There may be some construction work in the meadow up canyon (right) of the road.) Just stay on the jeep road and within a tenth of a mile climb steeply up to main jeep road in Arrastra Gulch.
[3.2] 9900	Arrastra Gulch Road. (21RD) Take a hard right (SSE) for about fifty yards then angle left (E) at the intersection of the Mayflower Mine Road. The road swings to the SSE and parallels the stream. After about 0.4mi make a hard left (WNW) at the intersection onto the Little Giant Basin Road. This road crisscrosses the path of the abandoned aerial tramway that went to the Big Giant Mine. Near timberline the road levels in a meadow where the remains of the Big Giant Mine and a small lake are on your right. The road climbs steeply through the slide rock, going around two switchbacks as it proceeds in a generally SE direction on the way to the upper Little Giant Basin. When you see the remaining buildings of the Little Giant Mine across the gully to the right, watch for the trail intersection leaving the road to the left. The trail is a distinct line along the left (N) side of the valley.
[5.9] 11930	Little Giant Trail Intersection. Turn left (SE) onto the trail. (If you stay on the road you will come to a lake and a dead end.) This old mine trail is not maintained and there are many loose stones. In a heavy snow year, there may be several steep snowfields you will have to cross. Some years we have had to cut steps in the rock hard snow. Near the top of Little Giant Basin, the trail has been cut through the rock and there are metal rod supports holding the rock in place. As you climb up the basin head wall, the direction of the trail changes from SE to S. When you reach the top of the climb at the head of the basin go S through a wide grassy meadow. Off to your left is an unnamed basin and directly in front of you is Little Giant Peak. The trail toward Dives Basin is cut across the steep east face of Little Giant Peak. In low snow years, this wide trail is no challenge at all. However, in heavy snow years, there is extremely hard, steep snow or ice. For three of the runs, steps have been cut in the snow. About a hundred yards below the trail, the steep grass slope disappears over cliffs that are several hundred feet high. A slip here could be fatal. Exposure, acrophobia. IF THE SNOW CONDITIONS WARRANT IT, THERE WILL BE A FIXED ROPE. (Note we have not yet had to use a rope here.)
[7.0] 13000	Dives-Little Giant Pass. (Climb #1) The high point is located on a narrow ridge on the east side of Little Giant Peak where you are suddenly looking into the upper end of Dives Basin. Continue straight ahead (S), leaving the built trail, and dropping straight down into upper Dives Basin. The animal trails used for this section are becoming well worn and easy to follow. At about the 12600' level, turn left (SE) on the built Dives Basin Trail when you meet it again. Below you to the right is a large cavity in the bottom of Dives Basin where the Shenandoah Mine has collapsed. Stay to the left of the ruins of the Shenandoah Mine buildings. Cross the hanging wall and pick up the unmaintained trail that stays on the left (N) side of the Dives Basin stream. Once below the headwall, you can see the Cunningham Gulch Aid Station below you. The trail switches back and forth going from a NNE to SSE direction, dropping rapidly toward Cunningham Creek. As you descend, you can view the next climb up Green Mountain. The Green Mountain route goes between the cliff bands, starting to the right (S) of the aid station, then climbs to the clump of evergreen trees you see just right and above the prominent water fall fed by the Green Mountain stream. Now focus your attention back to the Dives side of Cunningham Gulch and continue down into the timber. Here the Dives Trail may be overgrown with willows so watch carefully for it as it switches back several times. At the final switchback, you are directly above the stock pens and straight across from the Green Mountain stream waterfall. Follow the trail S, cross the Dives Basin stream (SSE) and angle left toward the aid station. Wade Cunningham Creek.

HARDROCK 100 MOUNTAIN RUN
2017 COUNTER CLOCKWISE COURSE DESCRIPTION

<p>[9.2] 10380</p>	<p>CUNNINGHAM GULCH AID STATION/CREW ACCESS/DROP BAGS. Turn right (S) on good dirt road, [FR589, 4RD], suitable for standard autos, and go 0.2mi. About 100 yards beyond the outhouse, turn left (E) and climb 0.3mi steeply cross-country through a meadow in a shallow drainage. Watch carefully for the trail on your left (NE) at the base of the cliff. The large number of willows in this drainage make it difficult to find the beginning of the very steep Green Mountain Trail. For the next half mile the trail climbs between two bands of cliffs on a narrow shelf. Exposure, acrophobia. At one point on this shelf trail you have a nearly straight down view into the Cunningham Aid Station (about 600 vertical feet). Once through the cliffs, traverse the steep grass and flower covered slope, continuing up and NE toward the only stand of evergreen trees between you and the Green Mountain Waterfall. The built trail direction switches to the SE at the trees, switches back three or four times across the grassy slope, then ends abruptly at a mine site. Follow a game trail left of the mine ruin and climb toward end of the ridge top (ENE) between the Green Mountain Stream and Cunningham Gulch. The flow of the Green Mountain Stream abruptly goes from a NNW to a W direction below the end of ridge. When you reach the top, you will be looking 100 vertical feet down at the Green Mountain Stream on the other side of the ridge.</p>
<p>[10.6] 11700</p>	<p>Green Mountain/Cunningham ridge. Make a hard right turn (SSE) on top of the ridge and do a little rock scrambling to get above a small rock out crop. Pick up a game trail that stays on top of the ridge and takes you through a stand of evergreen. After about a quarter mile, when the ridge drops into a saddle, angle slightly left onto a game/sheep trail that stays on the right (W) side of Green Mountain Stream. You may encounter a herd of sheep and their herding dogs in the Green Mountain Basin. The sheep may have flattened the trail markers. Go about 0.75mi (S) on the W side of the stream to about the 12000' level. Angle left (E) on a secondary trail, cross the stream and climb cross country up the ridge (E). On your left is a very steep, rotten dirt gully. At about 12,600' gradually angle left (N) toward the normally snow filled saddle between the Green Mountain drainage and Stony Gulch. Stay about 50 yards to the left of the Continental Divide, the ridge between Green Mountain Stream Drainage and the Rio Grande Drainage. Skirt the corniced snowfield in the saddle to the left, then turn abruptly right (E) for about 40 yards to the low point in the saddle. You are going to go down the gully on left (N) side of the saddle. Looking down this gully you can see Stony Pass, the high point on the road (N) between Stony Gulch and the headwaters of the Rio Grande River.</p>
<p>[12.2] 12980</p>	<p>Green Mountain/Stony Pass ridge. (Climb #2) While crossing toward Stony Pass you get a good view of the next part of the route that traverses the S to SW side of Canby Peak. The trail begins on the very visible wide grassy shelf on the S side of Canby Peak. Go down the bottom of the gully (N) facing the Stony Pass road on either a snowfield or black dirt until the slope off Peak 13165 flattens enough to allow you to leave the gully to the right (NE). Head toward Canby Mountain with Stony Pass visible between you and it. The route is a mixture of cross-country and faint animal trails crossing in and out of small drainages and slide rock fields. Your goal is to meet the road about 100 yards below the pass on the right (SE) side.</p>
<p>[12.8] 12580</p>	<p>Stony Pass. Cross the jeep road (CR-3) and angle to the right of a cliff face and very steep wash, climbing the grass-flower slope (NNE). Once you are above the top of the wash, turn left (NW) and locate the trail on the grassy shelf you observed from the Green Mountain Area. This built trail traverses all the way under Canby Peak going from a NW to NNE direction. The trail meets the ridge in the saddle NW of Canby Peak at 13000'. To your left is Stony Gulch and on your right is Maggie Gulch. At the saddle turn left (NW) on the ridge top and climb across Point 13214'. Turn around and take a look at the magnificent view of the Grenadier Range and Weminuche Wilderness behind you.</p>
<p>[13.7] 13214</p>	<p>Buffalo Boy Ridge. (Climb #3) Acrophobia, exposure. Find the continuation of the Canby Trail just to the left (W) side of the ridge between Rocky Gulch and Maggie Gulch and go 0.2mi to the next small saddle. A built trail that goes SE into Maggie Gulch intersects with Buffalo Boy Ridge and the Canby Trail here. From this normally snow-filled saddle between Rocky Gulch and Maggie Gulch, you will be able to see the Buffalo Boy tram shed and mine in Rocky Gulch to your left. Your next move is to drop cross country into Maggie Gulch then follow a series of sheep trail and cross country routes to the Maggie Gulch Aid Station. Move right to where you are looking down in Maggie Gulch, normally at the intersection of the snowfield and a rock outcropping. The aid station is at the end of the Maggie Gulch road and is visible from this ridge. Cross the ridge at the rock outcropping and work your way steeply down and slightly right SE below the ridge (E). You are below and parallel to the built trail that goes SE into Maggie Gulch. The Maggie Gulch Trail is usually buried under a large snowfield so you may not be able to see it. After about 100 yards, switchback toward the left (NNE) across a high hanging meadow and look for a good sheep trail (assuming the snow has melted). Continue in the NNE direction for about 0.5mi, dropping gradually so you cross under Point 13090 when you are at an elevation of 12600'. Once you get into the drainage of the stream that comes out of the NNW, angle right and move down toward the stream. Watch for a series of white plastic pipes. When you reach them, get on the sheep trail and cross the stream. Climb toward the low ridge, N about 50 yards, to the site of a shepherd camp. The remains of a crude wooden floor and a set of rusted bedsprings mark this spot. Continue N about 50 yards beyond the ruins into the first shallow drainage, and turn right (E). Go steeply cross-country downhill about 0.25mi until you meet a good trail in the willows. Turn right (SSE), and follow the trail across the side stream, then E to the main fork of the Maggie Stream. Wade the Maggie Gulch stream, angle left (N) on a trail that climbs a short distance out of the steep V in the bottom of the canyon then leads you through the willows down to the aid station.</p>

**HARDROCK 100 MOUNTAIN RUN
2017 COUNTER CLOCKWISE COURSE DESCRIPTION**

[15.3] 11840	MAGGIE GULCH AID STATION. Tank up, cheer up, start up. This aid station is located at the end of the road in Maggie Gulch. Where the trail enters the road there is a cable drum and just to the left are the remains of a well-preserved stamp mill, relics of the Intersection Mill and Mine. Take the good trail at the right (E) edge of the parking area. After about 200 yards, when the trail starts to swing toward the S, go directly uphill (E), crossing a small side stream for about 300 yards where you meet the Continental Divide Trail. (The Continental Divide Trail has been rerouted across here in the last few years and is not shown as such on either the USGS topo map or the Drake Map.) Turn left (N) on the Continental Divide Trail and climb up as it swings around to the E and meets the La Garita Stock Trail just to the right of the stream in the E-W drainage you have entered. (This is between the N and E in Continental Divide on the Drake Map.) Turn right (SE) on the now-combined La Garita Stock/Continental Divide/TR918/TR787 Trail and climb to the low point in the ridge, Maggie Pole Pass.
[16.3] 12530	Maggie-Pole Creek Pass. (Climb #4) Continental Divide. Snowfields. Continue ESE on the La Garita/Continental Divide Trail, heading toward Greenhalgh Mountain, the rounded peak on the right hand (S) ridge of the West Fork of Pole Creek. As you descend, cross multiple small streams that make up the headwaters of the West Fork of Pole Creek. These waters will become part of the Rio Grande River, eventually draining into the Gulf of Mexico. There are many low willows in this area and the trail is the only easy access through them. Just past the final small tributary you cross at about 11750', the direction of travel changes from SE to E.
[17.9] 11520	Sheep Creek. This stream comes from the S off of Sheep Mountain. Cross Sheep Creek into a large meadow where the trail becomes faint for about a half mile. This area has many elk that have been known to pull the markers from the ground and let them drop and to stomp the markers down as the herds cross the meadow. Go to the wooden pole trail marker on the right edge of the meadow then angle left (ENE) toward the West Fork of Pole Creek. The trail becomes easier to see as you approach a swampy, very muddy section that takes you through the willows. Wade the stream, move uphill out of the swampy stream bottom and find the trail. For the next 1.9mi there is only a net loss of 80' in elevation, but there are a series of short ups and downs as you parallel the stream on the treeless, grassy hillside. The West Fork stream is dropping faster than the trail so you are gradually getting further away from the stream. As you come down to where you can see left into the main fork of Pole Creek you will be on a large bench (Near the end of the word "Divide" on your Drake map). Stay some 50 yards to right (S) of the small lake and go to the aid station. (The map shows the trail going to the left (N) side of the lake but it is actually on the right (S) side.)
[19.6] 11460	POLE CREEK AID STATION. Minimal aid station. Everything has been packed into here on horses. From the aid station, angle left (NNE) on a reasonable trail. Just past the first gully coming down from your left, the trail turns sharply right (E) and drops steeply down to a willow-covered bench. You have now crossed out of the West Fork of Pole Creek into the North Fork of Pole Creek. Across the valley (NE), you can look straight up the Main Fork of Pole Creek, your next objective. Work your way through the brush on the bench to a good trail and turn left (NNW), and go upstream on the left side of Pole Creek.
[20.2] 11230	Wade North Fork of Pole Creek just above its confluence with the Main Fork. Continue straight ahead (NE), crossing the North Fork Trail. The Main Fork Trail has multiple names including the Continental Divide Trail , the Colorado Trail , TR 787 and TR 1776. You start out on the left of the Main Fork of Pole Creek and cross (wade) it twice on the way up the canyon. You will pass a series of small ponds, mostly on your right, and cross several small streams coming from the left.
[22.1] 11810	About 1.9mi up the Main Fork of Pole Creek you are going to leave the main trail. You enter a huge meadow with one fork of the stream coming straight at you from the N and the main stream off to your right, coming out of the NE. The Colorado Trail swings almost due E, crosses the stream from the N, and follows the NE fork. (This is at the bottom of the first E in "Telluride" on the title page of the Drake map.) Staying well to the left of the north fork stream, leave the trail and follow a game trail (N) on the left (W) hillside just above the flat, very swampy area in the bottom of the attractive looking meadow. Gradually climb 30-50 yards above the meadow edge and stream, onto a small bench where there are several small water holes and lots of willows. When the stream direction changes so it is coming directly from the left (W), continue straight ahead [N], and cross the stream. Your goal is a saddle at the 1 o'clock position. Continue N on a faint but findable trail and work your way moderately steeply up through the willows. Part way up this climb you go left of a slide rock covered point. Continue to work your way up through the willows until you meet a good trail that runs E/W. Turn right (E) on the E/W trail and maintain your elevation into the saddle. (On your Drake map, the route just described is roughly between the T and E in "Telluride" on the title page.) (In 2006, there were multiple ribbons and flag markers in this area for a study to reroute the Continental Divide Trail. From where you meet the trail to Cataract Pole Pass, these ribbons were on the course we use, but on the N end of the lake they turn N. Do not get distracted by them.)
[23.5] 12200	Cataract-Pole Pass. (Pass #5) Continental Divide. Located directly on top of this pass is a small lake. You decide which ocean the water leaving it goes to. You now cross back to the western slope. As you look down Cataract Gulch (N) the pyramid shape of Sunshine Peak (14,001') fills the end of the valley. Your goal is to get to the base of Sunshine Peak at the ghost town site of Sherman. Cross to the right (E) side of the continental divide lake and go left (N) on trail TR 475. As you drop into the Cataract drainage, off to your right across a basin filled with willows is Cataract

**HARDROCK 100 MOUNTAIN RUN
2017 COUNTER CLOCKWISE COURSE DESCRIPTION**

	<p>Lake. Stay on the trail on the left (W) side of the canyon for about a half a mile until you have gone past Cataract Lake. When you see a small pond to your left, begin to angle right (NNE) cross-country toward the Cataract stream. Cross the stream at about the 12,000' level and find the trail on the right (E) side of the canyon and continue N on it. From here-on this trail rapidly improves so it will not be heavily marked. In addition, there have been problems with people pulling markers on this trail. You may see very few or possibly no markers to Sherman. For the next 0.7mi the trail contours gradually around the hillside, staying above and to the right (E) of the trail shown on the Pole Creek Mountain USGS map, and then it turns back to meet Cataract Creek at about 11,600'. From here to Sherman you will have to wade the stream four times going down Cataract Gulch. In past years, there has been a build up of very slick algae at the crossing just above the waterfall so be extra careful if you have to wade the stream at this crossing. (In 2006 there were trees across the stream above the falls, so the crossing could be made dry.) When you get down to the 10,400' level, the trail leaves the stream and works its way onto the north-facing slope of the Cottonwood Creek drainage. After a series of long switchbacks, you are dumped into the bottom of the canyon where you cross a side branch of Cottonwood Creek on a log or by wading, and the main branch on the steel bridge. Just beyond the steel bridge is the aid station.</p>
[28.7] 9640	<p>SHERMAN AID STATION, CREW ACCESS, BAG DROP. The aid station is located near the BLM-provided rest rooms located at the Cataract Gulch trailhead. Turn right on County Road 18X (E) down canyon and go about 0.5mi to the bridge over the East Fork of the Gunnison River. About 40 yards beyond the bridge, leave the road to the left (N), watching for faint trail up the bank to an old mill site. For the next quarter mile, the route may be difficult to follow but the general direction is up and N. Cross to the right (E) of the stone wall at the mill site. About 20 yards from the wall, when you meet a long abandoned wagon road coming in from the E, angle left (NE) on a game trail. When you meet another abandoned road, turn left on it (NNW) up to a switchback. Leave the road, continuing up (NNE) on a series of game trails. You will come out of the trees in a grassy meadow near the Sherman Overlook scenic sign. Go to the sign and follow the wide trail to the Cinnamon Pass Road. <i>(This shortcut crossing from the Cottonwood Creek Road to the Cinnamon Pass Road is possible because of the generous permission of a private land owner to cross his land here.)</i></p>
[29.5] 9925	<p>Cinnamon Pass Road. 4RD Turn hard left (NW) and stay on this road for the next 3.1mi. Road is negotiable by standard road cars and there is a lot of vehicular traffic. Enter the West Fork of the Gunnison gorge and wonder at the engineering that was required to establish this narrow shelf road high above the river. You only gain about 400' of elevation on this road. There will be very few or no markers on this section.</p>
[32.5] 10410	<p>BURROWS PARK AID STATION. On your left are BLM restrooms and to your right is a large parking/camping area where peak baggers going after Sunlight, Redcloud, and Handies Peaks begin their climbs. Just beyond the restrooms, turn left (SW) on the well signed Grizzly Gulch Trail-Handies Peak Trail. Cross the Lake Fork of the Gunnison on a steel bridge and follow the good trail up the right (NW) side of Grizzly Gulch through the mixed conifer and aspen forest.</p>
[34.4] 11820	<p>Timberline. If there is not much snow, the route to the summit of Handies is simply to follow the trail. The following is probably only of interest if the trail is snow covered. From timberline stay straight ahead (SSW) and cross the Grizzly gulch stream and follow the cairns. You are looking directly at the east face of Handies Peak. Your target is the saddle to the right of the on the Handies Peak-Whitecross Mountain ridge. At about 12,000' cross back to the right side of the stream AND go NNE away from the stream toward Whitecross Mountain. At about 12,500' the route switches back toward Handies on a wide ramp. Work your way up this ramp and pick a line up the snowfields to the saddle between Handies Peak and Whitecross Mountain. Turn left (S) on the ridge toward Handies peak and climb the steep, loose dirt trail above the saddle. If traveling with one or more runners, be careful to not kick rocks down on those below you. Once above the steep section, it is a mild, short scamper to the rounded summit of Handies Peak.</p>
[36.8] 14048	<p>Handies Peak. (Pass #6) highest point on the course. Snow fields, altitude sickness, fantastic views. The ridge of the peak runs N/S. Stand with your face to the S (the direction you have been going) and look right (W) across American Basin. The low saddle you see on the ridge across the basin is American-Grouse Pass, your next goal. Go straight ahead and follow the good climbers trail (S) just to the right (W) of the ridge between Boulder Gulch and American Basin. At the saddle (13,480') angle right (W) on the very well built trail (BLM and CFI) that switches back several times across the west side of the peak. Your next target is Sloan Lake, a deep blue jewel (or ice skating rink) you see sitting in the upper end of American Basin. Once you get off the smooth grass slopes and start into a large rocky cirque, stay on the trail going straight S toward Sloan Lake. If the trail is snow-covered, be aware that you will drop to slightly below the lake level then climb back up to the ridge as you go toward Sloan Lake. (There is no trail shown on the Handies Peak 7.5 minute quadrangle map.) At the cirque is a sign asking all foot traffic to use the trail. Please, for the sake of the land and our ability to obtain a permit for this run in the future, stay on the trail to Sloan Lake. There may be some mechanism for us to verify you have indeed followed the route to Sloan Lake.</p>

**HARDROCK 100 MOUNTAIN RUN
2017 COUNTER CLOCKWISE COURSE DESCRIPTION**

[38.2] 12920	Sloan Lake. Just before reaching Sloan Lake (it is off to your left) cross a saddle and turn right (N) on a series of steep, tight switchbacks to quickly lose 200 vertical feet into a flat area. Turn left (W) and follow the good trail across a series of side streams coming from the left. You are working your way toward the upper reaches of Lake Fork of the Gunnison in American Basin. (Yes, the same Lake Fork you followed up from Sherman and crossed at Burrows Park.) As you approach the Lake Fork Stream, the direction of the trail changes from WNW to almost due N paralleling the West Fork. This direction change occurs at the top of steep pitch, and the trail makes a switchback. About 30 yards below the switchback when the grade allows easy access, leave the main trail to the left (W) and head for the Lake Fork of the Gunnison on what appears to be an abandoned road. You want to cross the Lake Fork of the Gunnison at about 12,400 and join the visible trail that goes to the American Basin-Grouse Gulch saddle.
[38.9] 12400	American Basin-Grouse Gulch Trail. Cross the Lake Fork of the Gunnison River and begin to climb the W side of the basin on a trail that stays close to the base of the lower cliffs, going WNW. There will probably be much snow in here so the trail is difficult to find. Use the cliff band as a guide and contour around the hillside at the bottom. Once around the first set of cliffs, trail is intermittent but the route is NW with a rapid rate of climb, crossing several streams across the high open basin to the saddle. (Remember the saddle you carefully observed from the top of Handies? Go for it.)
[39.6] 13020	American Grouse Pass. (Pass #7) Snow fields. Look back at Handies Peak and appreciate where you have been. Angle left (SW) away from what appears to be the trail, and just across the pass get on the Grouse Gulch Trail going SE into the upper Grouse Gulch Basin. The trail makes four switchbacks down the slope of the upper basin then traverses down the slope high to the right (N) of a small lake in Grouse Gulch. Just past the lake, where the trail disappears, take a sharp left (S) for about 100 yards down a small ridge toward the Grouse Gulch stream. Turn right (W) on a trail just before the stream. This trail merges into an abandoned jeep road at a switchback on the road just above timberline. Get on the abandoned road and continue downhill (W). You will break out of Grouse Gulch in the Animas River valley and the Grouse Gulch Aid Station will be visible below you. Continue on the road around six or eight switchbacks. Turn left (S) at the Engineer Pass Jeep Road, 2 RD, go about 150 yards and cross the bridge over the Animas River. Turn right into the aid station. When you leave the Grouse Gulch Aid Station, you will backtrack these last 150 yards.
[42.1] 10710	GROUSE GULCH AID STATION, CREW ACCESS, BAG DROP. PACERS ALLOWED FROM HERE. Crew access to here is on a narrow, dirt road with a couple of spectacular dropoffs, but can be successfully reached with a standard road car. When you leave the aid station, turn left [N] on the Engineer Pass Jeep Road, 2 RD (Also now listed as CR-2), and follow it toward Animas Forks (NNW). You will stay on this road for about 5.4mi as you climb to the headwaters of the Animas River. (The original full Spanish name for this river was the El Rio de Los Animas Perdidas ("The River of Lost Souls".))
[42.9] 11000	At BLM sign indicating Alpine Loop, take the right fork (NE), up a steep jeep road. At the top of a steep climb continue straight (NNW) at the intersection with a road coming from below and left, The buildings you see in the bottom of the canyon to your left are all that remain of the long-abandoned mining town of Animas Forks. There once was a railroad spur that came from Silverton and people spent the winter here. Stay straight (NNW) on the Engineer Pass Road when it intersects with the well-signed Cinnamon Pass Road coming from the right. At the Denver bridge, near the confluence of the Animas River and Horseshoe Creek, the direction the road follows goes from N to WSW for about 200 yards then makes a switchback to the N. Just beyond this switchback, stay right at road intersection and continue up stream (N) to the E of Denver Hill.
[45.3] 12040	Mineral Creek-Engineer Pass intersection. There are heavy metals signs here located about 20 feet up the hill to your right. Continue straight and upward (N) to Engineer Pass, still on CR-2. Stay left (W) at the fourth switchback where a road intersects from the E at about 12600'. The next section of road is carved along the west face of Engineer Mountain (W to N) and the dropoff to your left is spectacular. Along this traverse, the road goes downhill for about a tenth of a mile before beginning the final climb to the Oh Point Road.
[47.2] 12910	Oh Point Road-Engineer Mountain. (Climb #8) At the high point, watch carefully for the road coming steeply up the ridge from the left. Turn left on the Oh Point Road (W). Here the Engineer Pass Road curves around (NE) Engineer Mountain and then drops to Engineer Pass. You do not want to go to Engineer Pass!! The Oh Point is a popular place for jeep tours and got its name from the many exclamations "Oh!". You only stay on the steep downhill road to Oh Point for about 25 yards before making a sharp turn right (N) and going steeply cross-country down the grassy/snowy slope. You are in grassy open meadows from here to the Engineer Aid Station. The headwaters of the Ouray Bear Creek originate in the basin in front of you and, with one short excursion to the left bank, you are going to stay on the right side of its valley for its entire length- from its headwaters to its merging with the Uncompahgre River. As the slope begins to level you will come to three mine dumps. There you will meet Trail 242 coming in from your right off the top of Engineer Pass. Turn left on Trail 242, immediately cross a small stream, and follow the trail NNW along the right side of the valley. You will cross several streams draining off Engineer Pass and Peak 13260 as you continue down valley (NNW). Near timberline, 11900', cross a small side stream and watch for a grey mine dump in the meadow to your left. Just past this dump, turn left (WNW) off the trail crossing to the right and above the dump.

**HARDROCK 100 MOUNTAIN RUN
2017 COUNTER CLOCKWISE COURSE DESCRIPTION**

	Continue downward across the meadow, cross another small stream and watch for a decent trail leading to your right and follow it to the aid station.
[48.6] 11800	ENGINEER AID STATION. Minimal aid station. Everything here has been backpacked. The trail at this point is extremely good. Continue on down the trail (NNW), Cross Bear Creek (wade), go a few hundred yards on the left (W) side then cross back (wade) to the right (E) side. The first two years of this run, the valley bottom here was covered with a huge snowfield/snow slide. In later years it has been snow free. If there is no snow, just go down valley on the trail on the right side of the stream. If there is a snowfield, continue down the stream bottom on the snow, trying to stay on the side of the snow away from where the water is running underneath but making sure you are on the right side of the stream at the end of the snowfield. Continue on the trail to a Forest Service sign pointing toward Engineer Pass that is in the middle of an abandoned road. Continue down the road (NNW), on the right side of Bear Creek and wade the stream coming from the right. There are some abandoned cabins from the Yellow Jacket Mine on your left.
[49.9] 11100	Yellow Jacket Mine. Bear Creek National Recreation Trail , acrophobia, exposure. TR 241 starts just beyond the buildings where Bear Creek takes a sharp swing to the left (W). Once on this trail, you can't easily deliberately get off. It is in a very narrow, steep canyon. The abandoned building next to the trail about a mile and a half down from the Yellow Jacket were part of the Grizzly Bear mine operation. You will have to wade or cross several streams coming in from the right. Be careful at these stream crossings as algae are prevalent on the rocks and they are usually very slick. As you go down the trail, there are dramatic drops of 300-400 feet to your left. The trail breaks out of the Ouray Bear Creek into the Uncompahgre Gorge at about 9200 feet, nearly a thousand feet above the River. As you have probably guessed by now, you are going to drop down on a series of switchbacks (13 of them) as the trail descends.
[53.8] 8480	Highway 550 tunnel. The trail crosses the highway on top of the tunnel then swings down to the highway on the left (S) side into a parking area. Turn right (W) and work your way downhill on a marginal trail about 50 yards to the remains of original toll road built by Otto Mears. Turn right (N) and follow the trail a quarter of a mile. At a wooden post and just before the road disappears in a pile of rock, turn left (NNW) onto the trail going steeply down to the Uncompahgre River. Follow trail to the river where on the opposite bank is a warning sign for boaters stating "Dam Ahead". Angle right (N) on the river plain, staying close to the steep riverbank. After about 100 yards, pick up a game trail coming in from the right and climb up it (NE) to the Mears Toll Road, just below Highway 550. Turn left (N) for about 50 yards. As soon as you go under the supports of an old tram tower, angle left (WNW) steeply downhill on a game trail some 125 yards to the Uncompahgre Dam Service Road. Turn right (N) and go 30 yards to the Ice Park Trail. In the past few years, there has been a stack of old mattresses on the left (W). Do not turn left (WSW) as in previous years on the branch of Ice Park Trail that crosses the Uncompahgre River. Instead continue straight ahead on the road one half mile where it goes uphill two switchbacks to a green gate.
[54.9] 8210	At the green gate, stay on the Ice Park Trail as it leaves the jeep road onto a rock rib paralleling Highway 550. The trail is well cairned and easy to follow. Continue downhill until you meet the Camp Bird Road. Cross Camp Bird Road at about a 45 degree angle uphill to the east end of the bridge over the Uncompahgre River but DO NOT cross the river bridge. The overlook platforms for viewing the ice climbing will be to your left and the search and rescue building will be to your right. Descend to the right (E) end of the bridge, following the cut steps down to the old bridge and old road. There will be a stone building here the W end of the bridge. Turn left (W), cross the bridge, stay N on that road and through the Box Canyon Park. Follow the road past the Box Canyon Park entrance and down across the bridge over the Uncompahgre River. Angle right (E) on 3 rd Avenue, go to the second intersection, 2 nd Street, and turn left (N). Stay on 2 nd Street until it ends at 9 th Avenue. Turn left (W) on 9 th Avenue and when the road ends, merge with a trail that parallels the river (N). Cross a footbridge over Cascade Creek, pass to the right side of the Gazebo and enjoy the Ouray Aid Station.
[56.6] 7680	OURAY AID STATION, CREW ACCESS, DROP BAGS. Lowest point on the course. This is located in Fellin Park near the municipal swimming pool. Leave the Park across the footbridge (W) that is located behind the restrooms. Go past the Ouray City maintenance barn and turn left (S) at the first street (Oak Street). Follow Oak Street 0.5mi, to Queen Street, coming in from the right (W) as you go uphill. Turn right (W) onto Queen Street, go uphill a few hundred yards until a jeep road enters from the left (S). Turn onto the jeep road, look for a trail that angles left (SW), and follow that trail uphill steeply past fixed cables to the tunnel. Go uphill through the tunnel, open the white gate at the bridge, and cross the bridge over Box Canyon. Don't forget to enjoy the view. At the S end of the bridge, go straight across some rough area, angle left onto the old trail that rapidly settles down into an almost level plane. Follow this great trail several hundred yards until it intersects with the Camp Bird Road and turn right, uphill.
[57.9] 8040	Camp Bird Mine Road. FR 583. Get on this excellent dirt road (SW) suitable for standard autos and follow it up Canyon Creek. There will be no markings on this road before the Camp Bird Mine intersection.
[62.1] 9692	Camp Bird Mine. Stay right (W) on shelf road, FR 583.1B. Follow the signs toward Yankee Boy Basin and Imogene Pass. The Camp Bird Mine with its many buildings is to the left. The road rapidly becomes suitable only for jeeps on a shelf blasted out of the cliffs high above Sneffels Creek. Stay straight at the Imogene Pass turn off, pass the Revenue Mine across the river to the left and the ghost town of Sneffels (marked with a sign) on the right. Direction of road goes from a W to NW direction. At the next signed intersection, take the left (NW) road toward Governor Basin.

**HARDROCK 100 MOUNTAIN RUN
2017 COUNTER CLOCKWISE COURSE DESCRIPTION**

	Sign to the right indicates Yankee Boy Basin. The Governor Basin Aid Station is located about 200 yards up the Governor Basin Road just before the bridge across Sneffels Creek.
[64.5] 10780	GOVERNOR BASIN AID STATION. Cross Sneffels Creek on the bridge and follow Jeep Road 583.1C SW into Governor Basin. Stay left at fork in road (S) (there is a gate made of pipe on the right fork) and cross (wade) the Governor Basin stream. The road switches back several times as it climbs the west wall of Sneffels Creek then goes W toward the rugged San Sophies ridge along the left (S) side of Governor Basin. As you climb, you will see the remains of the Mountain Top Mine buildings to the right (N) across Governor Basin. Stay to the right at the intersection with the road that goes into Sydney Basin. The next road intersection you come to is a T-junction. The left fork is the Virginius Mine Road and the right Fork is the Humbolt/Mountain Top Mine Road. You are going to take a shortcut to meet the Virginius Mine Road again after it has made a long switchback. Go straight at the T, leaving the road, and climb steeply up the slope, normally snow covered, about 70 yards to the Virginius Mine Road you see cutting through the slide rock above you. Turn right (WSW) and follow the road to its end on the mine dump of what was the Virginius Mine. There once was a town with a population of 300-400 permanent (yep, winter too) inhabitants located here. Acrophobia. In a heavy snow year, such as 1993, the upper road to the Virginius Mine was completely buried and it was dangerous to try and follow it. If that is the case, the route will be marked across the snow on the safest line, not necessarily along the road.
[67.2] 12400	Virginius Mine. From here to Virginius Pass is cross-country up a series of three very steep steps. To climb the first step, cross the mine dump to the first gully on the right (W) side of the dump. Cross the gully, immediately turn left (S), and climb steeply up a series of mine dumps just to the right of the gully. The best way to get up this section is dependent upon the snow pack. We have had one occasion where it was so full of snow and ice that steps had to be cut for the route. When dry, the mine dumps are extremely hard and due to the steepness offer very little traction. If there is a dirt/snow interface visible try following it on the dirt since a little of the snowmelt may make the dirt a little softer and allow your feet to hold better. At the top of the first step, the grade levels in a big bowl. Keep the stream to your left and continue directly S up the drainage to the second step. The exact route up the step is dependent on the snow. This step is easier to climb when there are large amounts of snow. If there is no snow, use caution to keep from either pulling rocks down on you or kicking rocks on those below as you up the very loose dirt/rock mixture. At the top of the second step, the terrain flattens again and you are looking directly up a chute, usually snow or ice filled, at Virginius Pass (S), the low point in the ridge between the rock spikes and the top of the third step. Climb steeply up the chute straight toward the pass. THERE WILL BE A FIXED ROPE HERE!
[67.7] 13100	KROGER'S CANTEEN AID STATION. (Pass # 9) Cornice, acrophobia, exposure. Telluride resident Chuck Kroger started the aid station here in 1992. In his memory, the aid station still carries his name, and a hardy group carry on the tradition and backpack a minimal aid station into here. The pass is barely wide enough for their shelters and on cold windy days it can be a miserable place to hang out. Cross the pass and go about 200 feet steeply down the gully (possible glissade) into Marshall Basin. (The 2006 aid crew built a set of rock steps into this very loose section.) When you get just below the pinnacles, turn right (WSW) on the trail through the scree and gradually lose elevation as you circle the top of Marshall Basin. This upper basin will probably be full of snow. As you follow the trail around the basin your direction of travel will change from WSW to SSE. You want to cross the ridge that runs due S off Mendota Peak. The trail to this ridge is visible as you cross Marshall Basin. Below you to the left you will see the remains of many mines and some newly made roads that are being used for water reclamation projects in the area. At about the 12,500' level, make sure you get on the Mendota Ridge Trail (SW) staying high on the end of the valley. (Shown just above the word "Marshall" on the Drake map.) The final climb to the Mendota Ridge is on a blasted shelf trail through the cliff on the southeast side of Mendota Peak. You may have to climb around a snowfield to get to the top of the ridge and be able to look into Liberty Bell Basin.
[68.4] 12560	Mendota Ridge. Cornice. Just beyond the summit, make a switchback and descend (WNW) into upper Liberty Bell Basin on a trail cut across the slide rock on the west side of Mendota Peak. When you reach the grass slopes, follow the trail down two switchbacks then bear slightly left (SW) and down for 200 yards. Continue on the trail down (NW) the left (W) side of the Liberty Bell drainage. (The trail is on the opposite side of stream from the location shown on the USGS Telluride quad topo map.) The elk herd is growing in this area and the day after the 1999 run, they had stomped many of the flags down so you may have to look carefully for flags. The trail enters a small flat area about 50 yards above the old Liberty Bell Jeep Road (closed to vehicles and classified as a trail for this run) near timberline. Continue straight when the trail merges into the road and follow it down the Cornet Creek Drainage almost to Telluride. Direction of travel will become SSW as you descend. Stay left, going downhill at the two side roads you meet. At about the 10,000' level, there is a pressure relief valve for the water pipe carrying part of the Telluride domestic water supply located left of the road. When the pressure releases, water spews from a tall pipe and there is a lot of noise associated with it. In 1994, some of the volunteers from the Kroger's Canteen Aid Station came down here after dark and thought they were hearing a bear. They spent a chilly night waiting for daylight before they realized what it was.

HARDROCK 100 MOUNTAIN RUN
2017 COUNTER CLOCKWISE COURSE DESCRIPTION

[71.6] 9600	At the well signed Jub Wiebe Trail intersection, continue straight (S) ahead on the road/trail. Coming down the Liberty Bell Road toward the reservoir, there are several places you can overlook the town. The canyon directly across from you (S) is the Telluride Bear Creek, the next leg on your trip. Between you and Telluride Bear Creek is the town park. There is a large white permanent canopy in the park that marks the aid station location. Pass to the left of the covered reservoir on a switchback and follow the road to the south-facing of the San Miguel River canyon, going away (E) from Cornet Creek. Go around the pipe gate and onto Tomboy Road (FR 869). Turn left,(E) and go uphill on Tomboy Road for about 40 yards, angle right on a road (some new houses are being constructed in this area so the road may be gated), go along this road about 10 yards and turn right (S) onto a well-used trail that makes a quick switchback down canyon (W). After only a short distance, at the next trail intersection, turn left (S) and drop steeply to where the trail merges into a driveway. Continue straight, crossing Galena Street and merge onto Alder Street. Follow Alder Street to the intersection with Colorado Avenue, cross Colorado Avenue (remember you are still heading for the white canopy) take a dirt track about twenty yards to the bike path, turn right onto the bike path, for about 30 yards to the pedestrian bridge across the San Miguel River, turn left, cross the bridge and follow the paved path to the aid station.
[72.7] 8750	TELLURIDE AID STATION, CREW ACCESS, BAG DROP. Leave the aid station heading toward the soccer fields and stage (S). Get on the trail just to the right (W) of the stage area where the park meets the trees. Climb for about 100 yards (WSW), always staying on the left fork of the trail, to the Telluride Bear Creek Road, FR 635 (closed to vehicles and classified as a trail for this run). Make a hard left (ESE) on this road and follow it into the Telluride Bear Creek drainage. As you move into the canyon, the road direction becomes almost due S and stays on the right side of Bear Creek. Stay right at the only intersection about 2mi up from the aid station.
[74.9] 9680	Wasatch Trail. Turn right (W) on trail TR 508. (Forest Service Sign). Trail climbs steeply with switchbacks then turns S and continues high above and to the right of Bear Creek. Cross a footbridge through the cliffs just before the Nellie Mine. Between the Nellie and the bridge, a side stream and the trail use the same route to get across the steep rock face. Acrophobia.
[76.1] 10840	Nellie Mine. Ruins are on your right. Beyond the mine, there are normally the frozen remains of a snow slide. Cross this snowfield on the same line you have been following on the trail, or if it is dry, just follow the trail. At the far edge of the snowfield, take the left fork, TR 513 (Forest Service Signs). You are aiming for the confluence of the main fork and the east forks of Bear Creek. Go just above the stream intersection and cross the main stream of Bear Creek. Stay on the flat between the Main Fork and East Fork, angling upstream on an intermittent trail toward the East Fork. Normally, the valley of the East Fork drainage directly in front of you is completely full of snow and the trail to the left of the snow is covered and can't be found. In heavy snow years, the route goes directly up the rock-hard snowfield directly over the East Fork of Bear Creek. After about 0.15mi, when the snow slope levels off, the drainage ahead narrows to a slot, and there is a small waterfall directly to your left. Go left off the snowfield and climb steeply to the East Fork Trail. In very dry years when the snowfield does not fill the East Bear Creek valley (2006 was one of these years) stay on the trail, climbing up the East Fork parallel to the stream. Where the valley narrows, the trail make a switchback (NE) and passes under the waterfall (in a heavy run off year this can mean an unplanned cold shower), then switches back multiple times as it steeply climbs about 300 vertical feet on the face of the mountain to get above the East Fork. At about 11,400' the trail begins an up-canyon traverse across the face of the East Fork (SE) drainage. Acrophobia. The elevation of the stream rises rapidly until trail and stream meet at the intersection of the East Fork and Wasatch Trails.
[77.3] 11990	Turn left (N) on Wasatch Trail FR 508, at the Forest Service trail markers, and climb through several switchbacks up the Wasatch Mountain face. After climbing about 200 vertical feet in an ESE direction, the trail switches back onto a SE line parallel to the East Fork Stream. Again, the stream elevation rises rapidly and you will meet it again in a huge, often flower-filled meadow (Wheelbarrow Flats). Cross the stream as you enter the meadow and follow the trail up the right side of the stream. You may have to cross the remains of several snow slides across here and one year the entire meadow was under about eighteen inches of slushy snow. At the upper end of the meadow, the stream narrows to a sharp V and the trail stays to the right climbing through some steep rocks. Continue SE and cross the East Fork stream. Up to here, the general direction of flow of the East Fork has been NW, but here in the upper basin the flow is almost due N. You want to continue on a line becoming due E to the Wasatch Saddle. The trail from the crossing of the East Fork stream to the Wasatch saddle is well marked with cairns as it climbs through multiple switchbacks across the flower- or snow-covered hillside. If the basin is full of snow, when you come out of Wheelbarrow Flats, take a bearing on the low point in the ridge directly (ESE) ahead of you and climb to it across the snow.
[78.8] 13060	Wasatch Saddle. Cornice. Go straight across the pass until you have a good view of upper Bridal Veil Basin. Your next target is Oscar's Pass, the low point on the ridge to the right at about a 60 degree angle. Work your way off the cornice, angling slightly right (SE) and down across the snowfield into Bridal Veil Basin. The amount you can angle is snow dependent and you may have to go almost due E to get into the basin. When the slope levels enough to allow a turn directly toward Oscar's Pass, turn right (S) and go to the Oscar's Pass Jeep Road (closed to vehicles, classified as trail for this run). The road normally is snow covered but you can usually see outline of the road across the snow. As the

**HARDROCK 100 MOUNTAIN RUN
2017 COUNTER CLOCKWISE COURSE DESCRIPTION**

	road approaches the pass, its direction swings left (E) and there is normally a large, icy snowfield with a cornice you have to traverse up to Oscar's Pass. If conditions warrant, there will be a fixed rope here. (To date we have not had to use a rope here, but have had to cut steps.)
[79.2] 13140	Oscar's Pass. (Pass #10) Acrophobia, exposure, cornice. Look straight across from you as you cross the pass. You are looking into Swamp Canyon and the saddle at the head of it is Swamp-Grant Pass, the next climb. On the right side of Swamp Canyon you will see two waterfalls coming off the side of U.S. Grant Peak. You will cross the bench below them. From the top of Oscar's Pass, follow the remains of the steep jeep road with multiple switchbacks on a line parallel to Chapman Gulch (to the left) down (S) to the Ophir Pass Road. Between the pass and the first switchback there may be the remains of a snow slide across the road. To get across here, there may be a fixed rope and/or steps cut in the snow. (To date, cutting steps has been sufficient). Three switchbacks down, this same snow slide crosses the road again and if necessary there will be a fixed rope and/or steps cut here. Stay to the left at the intersection after passing the locked pipe gate in the trees. The Forest Service has installed a locked green gate near the bottom of the Oscar's Pass Road. Just work your way around the gate and continue down the road through the willows. When the Oscar's Pass Road merges with the Ophir Pass Road, FR 679, continue straight ahead (W) downhill 0.3mi to Iron Springs.
[82.0] 10160	Iron Springs/Swamp Canyon Road. This one-time mining site is characterized by some very red iron oxide mine dumps, most of them below the road. Take a hard left (105 degree turn) (SE) on the Swamp Canyon Jeep Road. In places is also the streambed for the Chapman Gulch stream. The Forest Service has put a green gate across this road to restrict vehicle access. Work your way around the gate and continue up the road. The aid station is located at the next road intersection near some power poles.
[82.4] 10190	CHAPMAN GULCH AID STATION, CREW ACCESS, DROP BAGS. Leave the aid station and go directly (10 yards) to the main stream of the Howard Fork of the San Miguel River, cross the stream on logs or by wading, and head S into Swamp Canyon on jeep road (Closed to vehicles and classified as a trail for this run). After 0.5mi, turn right (WSW) off road onto trail. Watch carefully for this turnoff. It is on a level spot in the fir and spruce. (If you find yourself getting into willows and nearing the water in Swamp Canyon, you missed the trail turnoff. Go back and find it.) After a few switchbacks the trail climbs (SSE) through a high meadow and works its way through some skunk cabbage to a high bench. There are relics, including a wood stove, of a sheepherder's camp. This bench is located on the north side of a side stream running into Swamp Canyon from the west. Cross the side stream and follow a sporadic trail into the slide rock. You are going to pass under the north face of U. S. Grant Peak going in a SSE direction. When you break out of the slide rock, you are on a grassy bench (11,150') that has an intermittent trail across it. Cross the stream that comes out of the basin between U.S. Grant and the unnamed 13,528' Peak. You will now have a close up view of the spectacular waterfalls you could see from Oscar's Pass. Stay on the bench (SE) until you are almost back to the main drainage of Swamp Creek. Angle right (S), following the remains of the trail as it goes into and out of rock glaciers. The route is generally climbing up a small ridge that splits the basin. Keep a small valley on either side of you as you approach the final pitch to Grant-Swamp Pass. Be very careful in this area: these rock piles can be leg breakers. The final climb is about 1/4 mile very steeply up loose scree. It is small rocks and dirt that will slide back down the hill with each step you take. Aim for the low point on the left side of the saddle. Acrophobia. You will use a lot of energy here so take it easy. The top 300' may have a fixed rope depending on snow. (Only had a rope once so far.) (Some local mountaineers cut steps up the snow to help the runners in 2005. No guarantee it will happen again.)
[85.6] 12920	Grant-Swamp Pass. Acrophobia. Exposure. (Pass #11) You are looking into the Ice Lake drainage with multiple basins. You are going to descend Island Lake Basin. Behind you is a spectacular view of Swamp Canyon and Oscar's Pass. The saddle will probably be full of snow on both sides of the pass. Go to the right (W) on the ridgetop for about 100 yards, pass the Joel Zucker Memorial Plaque mounted on the face of a rock to your left, then start angling down (SW) through the scree. After dropping about 50 vertical feet onto the S side of the pass, switchback left (SSE) on some faint animal trails through the slide rock-scrree mixture. Traverse all the way across the slope above Island Lake, losing elevation rapidly. You are aiming for the ridge to the left (E) side of Island Lake.
[86.2] 12400	Island Lake Ridge. Island Lake is to the right and below you. Follow this ridge down (S) until you are in a saddle about even with the island in the lake. Turn left (SE) and drop into the drainage that flows in a SE direction. There is a trail along the left side of this drainage. The trail switches to the right side of the stream and takes you down to a mine dump that still has metal track on it. Go left below the tracks, cross to the left side of the stream, then within fifty yards angle hard right down the drainage. You are on the original Island Lake Trail that you follow to its intersection with the Ice Lake trail. The general direction of travel is S, but you will be going around multiple switchbacks as you drop down the steep south-facing slopes of Lower Ice Lake basin.
[87.4] 11290	Ice Lake Trail, FS 505. Turn left (SE) and go 0.2mi. The next turn, off the trail onto the Kamm traverse, is difficult to find and is cross-country. Stay on the Ice Lake Trail until you have gone approximately 150 yards past a huge conglomerate rock that is on your left at a switchback. The Ice Lake Trail is going S and down on a side hill. When the hillside to your right becomes almost perpendicular instead of parallel to you, turn right (W) off the Ice Lake Trail onto a well-worn animal trail.

HARDROCK 100 MOUNTAIN RUN
2017 COUNTER CLOCKWISE COURSE DESCRIPTION

[87.6] 11160	Kamm Traverse. From here to the KT Aid Station is the Kamm Traverse, named in honor of Ulrich Kamm who suggested using this route based on some hundred year old maps he obtained after the 1993 run. Follow the well-worn animal trail steeply down (S) to the Ice Lake Stream. The trail puts you at the lower end of a flat bottomed bowl between two small waterfalls.
[87.7] 11040	Ice Lake Stream. At the lower end of the bowl, there is normally a bunch of big trees hung up on the rocks in the stream. Cross the stream, either by wading or working your way across on the logs. (In 2005, the bowl was filled with avalanche debris. One runner, who was scouting the route, was badly injured when a tree he was sitting on over the stream shifted suddenly due to snow melt and his weight. The route for that year was adjusted to go above the waterfall on the upper end of the bowl (right). If that is necessary, there will be a fixed rope.) Climb up the hill on the S side of the stream for about 50 feet, then turn left (SE) and follow trail about 0.4mi along a boggy bench and through the trees, paralleling the Ice Lake Stream that is rapidly losing elevation on your left. When the Ice Lake drainage abruptly ends, the trail turns S onto the face of the South Mineral Creek drainage some 1200 vertical feet above the South Mineral Campground. Exposure, Acrophobia. In about 0.2mi, this very narrow game trail merges into a track leftover from an abandoned jeep road at a mine site. Follow this track SW to the KT Aid Station that is located at the intersection of the KT trail with the Bandora Mine Road.
[89.0] 10630	KT AID STATION. Turn right [SW] on the Bandora Mine Road (FS-585) and go uphill about 0.2mi. Turn left (SSE), just before an old abandoned road intersection blocked off with rocks. Go down the grass slope, aiming for the red-colored bare area with water running down it on the far side of the South Fork of Mineral Creek. Wade the South Fork of Mineral Creek and go up the red bare area into the willows. (High water in 2005 made this a very dangerous crossing. Many of the runners chose to go across here in groups and link arms for stability.) Pick up the trail at the top of the red wash and work your way slightly right (SE) through the willows toward the tall timber on the far side of the meadow. Just into the timber you will merge with the Porcupine Gulch Trail. Turn left (SE) on this trail, which climbs steeply through a series of switchbacks up under the west ridge of the northeast peak of the Twin Sisters.
[90.2] 11360	The trail turns abruptly left (NE) and traverses between the west ridge and north ridge of the northeast Twin Sisters Peak, actually losing a bit of elevation along the bench. After crossing the north ridge, the trail turns due E and drops into the Porcupine Creek drainage. Cross several tributaries of Porcupine Creek as the trail continues (E) toward the main branch of the creek.
[91.1] 11240	Porcupine Creek. The trees end at the Porcupine stream edge and you are looking at a steep hillside meadow. Go directly (E) up this meadow until you intersect a trail and turn right (SE). (We suspect the sheepherders bring their flocks into this basin later in the year and maintain this trail.) The trail passes about 100 feet to the left of two waterfalls and will take you above the hanging wall of Porcupine Creek. There, the stream is to your right and several hundred feet below you. Your target is the low saddle located directly in front of you as you come over the hanging wall. When the trail disappears, continue on a SSE course to the Porcupine-Cataract Saddle.
[91.9] 12230	Porcupine-Cataract Saddle. (Pass #12) Look across Cataract Basin at the far ridge (Peak 13,042'). The right side of the ridge is your final climb! The saddle may be full of snow with a cornice on the Cataract Basin side. Pick a route down the snow and after dropping about 50 vertical feet, angle right picking up one of the sheep trails for your traverse across Cataract Basin. If there is no snow in the saddle, turn left (NE) on the trail that drops about 50 vertical feet before switching back to the right (ESE) for the traverse of the basin. Your target on the traverse is the saddle on the far side (E) of the basin between Cataract Basin and Lime Creek.
[92.7] 12110	At the eastern-most side of the Cataract Basin, where you have no choice but to go uphill to go eastward, continue straight ahead (E) leaving the trail. The trail drops into Lime Creek. Climb steeply about 0.2mi up the grass face until you meet a good sheep trail then turn right on it (SE). Continuous to climb gradually under Peak 13,042' as you traverse along this west-facing hillside above the unnamed fork of Lime Creek. Below you to the right are some spectacular red cliffs and just below them is the Colorado Trail. Acrophobia. (You haven't seen it since leaving Pole Creek.)
[93.3] 12600	(Pass #13) This ridge is the top of the last major climb. Follow the sheep trail down (SE) the ridge between Putnam Basin and Lime Creek to about 50 yards above the Putnam-Lime saddle.
[93.5] 12400	Putnam-Lime Creek Saddle. (Note: Putnam Basin is not named on the Drake Map. It is the basin E of the unnamed Peak 13,042' at the head of Copper Gulch.) To get across upper Putnam Basin, angle left (N) on a mixture of trail/cross-country, aiming for the flat area at 12,000' just above the hanging wall near the headwaters of Putnam Creek. The flat and stream crossing are directly E of the Peak 13,042'. Cross Putnam Creek, climb a short hill and pick up the trail, another section we suspect is maintained by the sheepherders, and angle off to the ENE. There are a couple of short switchbacks that take you through several cliffs and across several side streams where footing is marginal. The trail stays to the left and high above Putnam Creek as it drops into the lower basin. Exposure, acrophobia, The aid station is located near timberline.
[94.9] 11400	PUTNAM BASIN AID STATION. This is an absolute minimum aid station because all items have to be backpacked into here. Continue downhill (SE) on trail toward Putnam Creek. Do not cross Putnam Creek but about

**HARDROCK 100 MOUNTAIN RUN
2017 COUNTER CLOCKWISE COURSE DESCRIPTION**

	<p>30 yards before it, turn left (E) off the Putnam Trail onto a secondary trail. Follow a mix of original Silverton Bear Creek Trail and animal trails down the left side of Putnam Creek. About 0.2mi down, just below a nice little waterfall in the Putnam stream, the trail angles left (NE), crosses a short bench, then drops sharply down to a longer, wider bench. Turn left (NNE) on the well-defined bench where you stay at a constant elevation (~11,200') for about 0.3mi. At the end of the bench, work your way through the skunk cabbage and willows, onto the built Silverton Bear Creek Trail, and follow it all the way down valley. From here to Highway 550, the trail stays left and high above the Silverton Bear Creek. As you exit Bear Creek into the Mineral Creek drainage, the terrain flattens and becomes a little hard to find. Continue to parallel Bear Creek, between it and some fence posts. Highway 550 is across Mineral Creek in front of you. Just past the last fence post, angle right (ENE) toward Bear Creek, going downstream parallel to Mineral Creek. Just above the confluence of Bear Creek and Mineral Creek, there will be a fixed rope to aid your crossing of Mineral Creek. Once across Mineral Creek, work your way 20 yards down Mineral Creek past the swampy area and climb up onto Highway 550.</p>
[98.5] 9395	<p>Highway 550. Turn left (WNW), cross the highway, and go upstream about 50 yards. Make a hard right turn (ENE) on the Nute Chute Trail. The Nute Chute route is named in honor of Silverton runner Chris Nute who suggested the change and directed the trail building work necessary to allow use of the railroad bed and eliminate the need to run Highway 550 from the Shrine Road to the Silverton Bear Creek. You are going to go high to the left and parallel to Highway 550 towards Silverton. The trail follows a bench up under the electrical power line, passes a two-poled power line support, and climbs to the railroad bed at the point where you are directly across from the Silverton Bear Creek. Turn right (SE) on the railroad bed and follow this nearly level path through the aspens. The route you are following is part of the railroad bed that carried trains from Silverton to Ironton. After about 0.6mi, above a log building, the wide track merges into a trail across a red talus slope. At the end of the talus slope, the trail merges into a jeep road that you follow to the Shrine of the Mines road.</p>
[99.7] 9450	<p>Turn left (NE) on the wide graveled Shrine of the Mines Road. Follow the road uphill until you are about even with the Shrine of the Mines statue and overlooking Silverton. Turn right (SE) and go steeply downhill on a trail that merges into 10th Street. Go two blocks on 10th and turn left (NE) on Snowden. Go two blocks and turn right (SE) on 12th Street. Go one half block to front of Gymnasium at Silverton School.</p>
[100.5] 9310	<p>SILVERTON, CREW ACCESS. STOP!!!!!! Check in with the officials and kiss the HARDROCK.</p>