

SPEED WEEK

BONNEVILLE SALT FLATS

AUGUST 13-19 2016

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Starting Line, long course looking north/northwest with Tetzlaff Peak in the center background. Sharp brown line in lower portion is the Salduro Loop mud dike. Note the dramatic surface differences outside the loop where salt has been drawn off by mining operations through the years. All encroaching vegetation is new to the landscape since 2000. The 3 horizontal lines etched into the near mountains are ancient seashores. The presence of vegetation north of the track is an indication of severe-

ly depleted salt thickness as these plants will not grow in the mineral rich surfaces. For many decades there was solid hard white salt (dense cemented halite) all the way to the base of the Silver Island Mountain Range. The narrow remaining “finger” of salt now has a maximum thickness in the range of ½ inch and does not support the weight or power application of many of these racing machines.

Long Course starting Line and staging lanes, close up. Racers arrive from pits located out of frame 2 miles to the left. Brown line near top is Salduro Loop mud dike.

ry access route between the pit area and the pavement in the lower half of this photo going out to the right is so thin that the brown underlying mud is showing through. The mud Salduro Dike has sloughed off over the years and spread across the surface further diluting the salt surface.

Vehicles located at perimeter points are spectators. Note the prima-



Looking nearly due east towards Salt Lake City. Long course starting line in lower portion, short course and rookie course located at top around the bend of the Salduro Loop mud dike.

the track surfaces and anywhere traffic has been moving, further demonstration of the thin fragile nature of the remaining salt on this basin.

Inside the solid white Salduro Loop the salt crust was measured to be more than 8 inches deep in 2016. Access road for participants and spectators is the glazed road near bottom of frame. Note the gray appearance of

In 1966 the Salduro Loop was abandoned by mining and set aside. It has been suggested that as part of a deal that was worked out between the mining and the State of Utah, it was to remain a “pristine” area from which a less than accurate “view” the salt could be relied upon when from the I-80 rest stop area.



Close up of Short Course and Rookie staging lanes located just beyond the southern most bend of Salduro mud dike. Line of cars near top are spectators watching speed machines on long course. Glazed arcing road at right is short course return road. The original Salduro Ditch is on the left of the dike in this view, now predominantly filled with salt deposits to the level of the surface.

Another clear demonstration of the width and amount of erosion of the Salduro Loop dike in this clear overhead view. The long alluvial like slope of the dike on the right side is a result of wind, rain, and surface water exposure over the years.



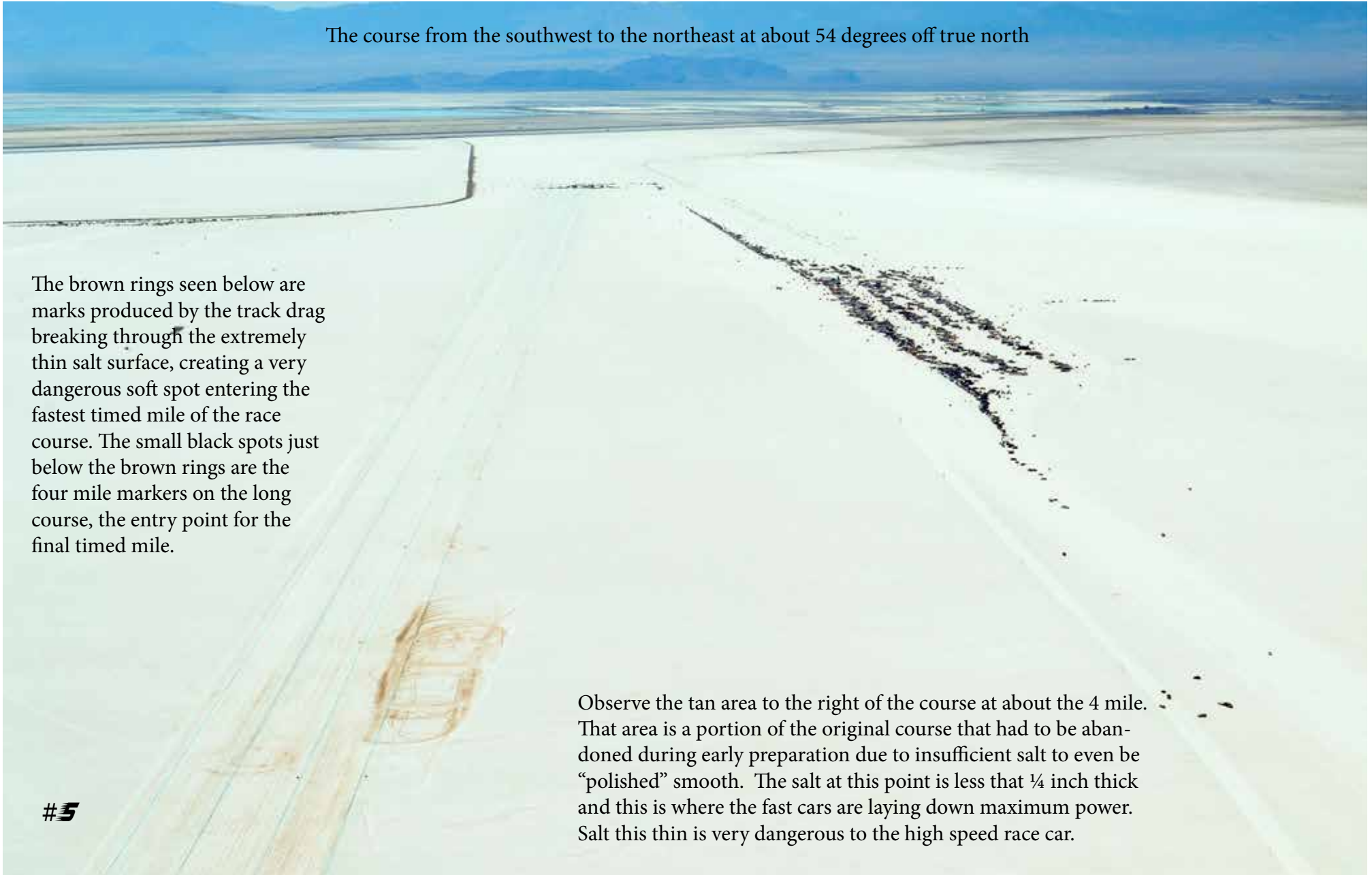
Looking southwest from Long Course 4.5 mile line along the international course heading back towards the starting line. Pits on right. Salduro Loop mud dike is the hard scribed right angled line near top. In the distance are the evaporation ponds of Intrepid mining, containing millions of tons of waste salt.

SCTA Timing Tower trailer for long course vehicles is to the left of the pit. Long course lanes are defined by blue lines. Only one lane is used on any given day, moving when the salt crust deteriorates below safe conditions. All three lanes were required to support 6.5 days of racing. The racing conditions were so bad that most high-speed participants left by Tuesday.

The course from the southwest to the northeast at about 54 degrees off true north

The brown rings seen below are marks produced by the track drag breaking through the extremely thin salt surface, creating a very dangerous soft spot entering the fastest timed mile of the race course. The small black spots just below the brown rings are the four mile markers on the long course, the entry point for the final timed mile.

Observe the tan area to the right of the course at about the 4 mile. That area is a portion of the original course that had to be abandoned during early preparation due to insufficient salt to even be "polished" smooth. The salt at this point is less than $\frac{1}{4}$ inch thick and this is where the fast cars are laying down maximum power. Salt this thin is very dangerous to the high speed race car.



Looking toward the North with Jenkins and Campbell Peaks in the Silver Island Mountain Range in background. Salduro Loop mud dike arcs along lower left. Short Course and Rookie course staging lanes hug the dike. Top line of vehicles are spectators that stretch from Long Course starting line 2 miles North.

As top line thickens these are the SCTA participant racing pits that extended for more than a mile along the Silver Mountains comprised of five rows. Note severe thinning of salt just behind pit area. The thin salt north of the track severely restricts alternate track alignments as the surface area decreases due to loss of mineral contents.



Looking toward the North showing Cobb Peak near the north end of the Silver Island Mountain Range. Salduro Loop mud dike arcs along lower left. Short Course and Rookie course staging lanes hug the dike as the race course fan out to the right toward Floating Mountain. Top line of vehicles are spectators that stretch from Long Course starting line 2 miles North. As top line thickens these are the SCTA participant racing pits that extended for more than a mile along the Silver Mountains comprised of five rows.

The glazed, gray line in between is the long course race course. The dark dot between the glazed race course is the SCTA Timing Tower trailer. The dark brown surfaces indicating minimal salt thickness north of the track and towards Floating Island.

Note: the severe thinning of salt just behind pit area with encroaching flora all along the base of the mountain roadway.



View looking south across the pit area of the 2016 Speed Week, Salduro Loop and I-80 across the center of the photo with the massive extent of salt on the south side of I-80 laid down by mineral extraction evaporation operations. This salt extends all the way south to the Deep Creek Mountain Range covering over 100 square miles and is multiple feet thick in many areas.

The arcing line in the middle of the image is the Salduro Loop mud dike. In the distance are the evaporation ponds of Intrepid mining, containing millions of tons of waste salt.



View looking southeast perpendicular to the long course at the pit area showing the decrease in salt thickness to the south and east along the federal collection ditch system. Again the salt surface extending to the south across I-80 is clearly visible all the way to the horizon. Close-up of the 2016 Speed Week pits that spread out over one-linear mile and

1/8 mile wide at the start of the event thinning to less than 75% of the racing entries by Tuesday when safe racing surface conditions withered dramatically. The tiny white trailer in middle left of the image is the long course timing tower and weather station. A vehicle is on course nearly even with timers.



View looking east across the pit area and race courses showing the standing water and salt thickness depletion along the federal collection ditch.

The salt surface extending to the south across I-80 is clearly visible all the way to the horizon. The glazed, grayish line to the right of the pits is the long course race track.



View looking due west towards Wendover and the paved access road from I-80 exit 4. Note the brown surfaces and vegetation extending out from the Silver Island Mountain Range indicating very thin salt surfaces. In the early days of land speed racing (before the paved access road, Interstate 80 with exit 4) access to the salt was gained from Highway 40, a few miles east of Wendover by driving off the north shoulder of the road directly onto the hard white salt surface.

This access existed before mineral extraction progressed to the current industrial scale under BLM leases that resulted in the massive transfer

of salt to the south side of I-80. Today these areas are nearly completely bare of salt and vegetation grows in the underlying dirt. All the dikes and ditches were significantly smaller before the BLM started issues mineral extraction leases.

Before potash mining was legalized racers recall the hard white salt extended all the way back to the “bend in the road” and there was no vegetation to be seen along the last four miles of that road as you headed east to the entry point. The 2 arcing roads on the left of the image is the exit ramp off I-80 into Wendover, Utah.



View looking southwest near the intersection of the west Salduro Loop and I-80, foreground is the Intrepid Potash private property inside the Salduro Loop. The two large parallel lines are the divided lanes of I-80 east and west, above them is the Central Pacific Railway and old Highway 40.

The Intrepid Potash evaporation ponds are visible to the south. The thin band of white salt to the right of the Salduro Loop, this is the start area of

the International Course and the location of the reintroduction manifold where brine has been pumped back out onto the Bonneville surface since 1997. Based on this view, it seems to be working to replenish the salt in this area.

The thick white salt contained in the Salduro Loop is in the foreground, Intrepid evaporation ponds are to the south across I-80, and the cities of Wendover and West Wendover in the distance.



View looking north with Graham and Cobb Peaks near the north end of the Silver Island Mountain Range in the background. The federal collection ditch is in the foreground with its massive mud dispersion out over the salt due to wind, rain, erosion, and transient winter pond damage. The brown surface at the base of the Silver Island Mountain Range indicates very thin salt over this large distance. The only usable salt surface is where the long course was laid out, and it practically ended at about 7 miles, roughly where the small black spot near the left center of this frame. In recent past years there has been a salt “finger” extending along the collec-

tion dike nearly to Floating Island, another 4 miles beyond where the salt stops in this photo. This area is where the International return runs would have started, but with no salt to run on they are now forced to use significantly shorter distances. Many of the faster vehicles opted out of international record attempts held late in September due to this condition. Just out of sight at the bottom of the picture, the ditch turns to the left and proceeds to the mining company’s settling ponds on the other side of I80. You can see as the ditch zig-zags off into the distance, the once white pure salt surface has been leached out so that only basic mud remains with a few tiny thin traces of remaining salt in rare spots. This federally approved (and federally funded / installed) extraction process has been underway for over 60 years and the Land Management authorities still can not determine where the salt has gone or why the salt surface has been depleted. As a “Salt extraction” device and process – one could observe that it has worked very well. One could also wonder if it might work as well as a “Salt Return” process as it did as a “Salt Removal” process.



View of the north end of the International Course showing the 4 mile stretch out to Floating Island at the right edge of the photo. Note the white salt about ¾ mile past the federal collection ditch and then brown mud the remainder of the distance to Floating Island. In the recent past this entire distance would have been hard white salt to form the 14 mile racing surface from I-80 out to Floating Island. It is clear from this photo that the lack of salt here at the north end limit the International Course length. The longest course used in 2016 was just under 9 miles. Not that many years ago, from the base of the Silver Island Mountains across to the federal collection dike and out to Floating Island, was covered with hard white salt deep enough to easily support the heavy streamliners and support vehicles. Today this area is soft

mud that swallows up any vehicle unfortunate enough to get out there.

This view shows the north end of the federal collection ditch with Floating Island in the right edge of the photo. Floating Island is the original north end of the International Course. Presently this northern area has become miles of mud flat, the salt has been extracted along with the other lease covered minerals, providing little of value except local towing company income as they recover vehicles that have become embedded in the quagmire. The surface over 4 miles from Floating Island is not only unusable as a racing surface, but impassable by motorized vehicles. These surface conditions have deteriorated so far that even the University of Utah salt study core drilling has been delayed by access issues for the equipment.

