

North-Chile

Leg details

Date July 12 - September 10, 2013

Leg Putre - Termas de Jurasi - Reserva Nacional Las Vicuñas - Salar de Surire - Parque Nacional Volcano Isluga - Paso de Aroma - La Tirana - Iquique - Santa Laura - Humberstone - El Gigante de Atacama - Tarapacá - Termas de Lirima - Parque Nacional Salar de Huasco - Salar de Composa - Ollagüe - Chiu Chiu - Calama - Geiseres El Tatio - San Pedro de Atacama - Valle Arco Iris - Valle de la Muerte - Valle de la Luna - Reserva Nacional Los Flamencos - Baquedano - Pedro de Valdivia - María Elena - Cerros Pintados - Pica - Iquique

PDF 

Leg map (click to enlarge in separate window)



On Friday, July 12, 2013, we get ready to leave **Putre**. Our plan is to visit the national parks in the Altiplano (tablelands). Putre is not the best place on earth to stock up either on food or fuel. Especially fuel is difficult to be found and we have to buy the one from Cali Tours at 2 USD / It But driving down to Arica to fuel up would be even more expensive! From the 3560 m above sea level of Putre we rapidly start climbing into the mountains on the RN11. Some 10 km later we deviate east to the **Termas de Jurasi**, which are already at 4035 m above sea level.



Termas de Jurasi is a group of hot to very hot baths, a red mud bath, two small indoor pools and a larger outside hot water pool. The hot water is so relaxing that, even though we are used to the height, Susi has quite a problem getting back up the stair to the parking lot. In the parking lot we see the wreck of a car and like the sign "Sr. Turista, Su colaboración para mantener este lugar libre de basura y desechos, ayudara a preservar el entorno y el medio ambiente. Gracias." (Your cooperation in keeping this place free of trash and debris helps preserve the environment. Thank you.) Right, only tourists leave rubbish sorry, forgot about it



We come past some areas where the surface is so cold that the water that seeps out of the hill freezes in no time Susi also finds some flowers

Shortly before Las Cuevas we leave the RN11 and take the A235 in southern direction into the **Reserva Nacional Las Vicuñas**.



We are now on the volcano route and will drive past some dead and some still active volcanos. This route more or less follows the Chilean border with Bolivia. The mountain range is called the **Nevados de Payachata** volcanic group and includes the **volcanos Parinacota, Pomerape and Acotango** but don't ask me which one is which one they just all look great with their white capped tops!



There are also several mines along the route and the dirt road is very well maintained. The amount of trucks on it is amazing!



The Reserva Nacional Las Vicuñas was created to save the wild relatives of the llamas from extinction. They have bounced back and a healthy population of more than 30 000 animals lives now in the national park. Compared with other areas where they are hunted the vicuñas here are not shy at all, much to the joy of Susi who finally gets a nice close up of the cute animals.



The sights are quite spectacular and some interesting formations can be seen along the way.



We can see the **Nevados de Quimsachata** and the smoking 6063 m high **volcano Guallatiri**, which is one of the most active volcanoes in northern Chile with an active vent at its southern side.

The volcano Guallatiri featured in the "Bolivia Special" episode of Top Gear. The guys tried to take a short cut over the volcano but were forced to turn back. Due to the lack of oxygen their cars kept breaking down. The guys also suffered from altitude sickness and at one point their oxygen saturation level fell below 85%, which usually would require a hospital check-up

We don't fancy sleeping close to the busy dirt road. Luckily we find a small track that deviates into a valley where we find some quietness. During the night the temperature drops to -12.5°C again



On Saturday we continue on to the large **Salar de Surire**, a salt lake 4300 m above sea level.



The salar is split into two sections: One is mined for borax and the other one is a nature reserve with sulphurous thermal springs and home to three species of flamingos



.... the flamenco austral or chileno (*Phoenicopterus chilensis*), flamencos andinos (*Phoenicopterus andinus*) and the flamenco de James, parina chica or chururu (*Phoenicopterus jamesi*) As we are not into birding it is difficult to distinguish them but they all look very pretty. The fox probably does not mind either what it is when he catches one

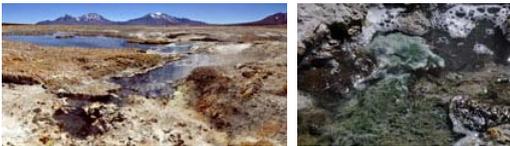


The Polloquere Hot springs are a large pool, not too deep, just right to sit in the water and relax. Close to the parking area the spring brings almost boiling water to the surface. As the water flows towards the other end everyone has the chance to pick its preferred temperature We have seen many natural springs but this one is by far the nicest setting we have found.

As the day-temperature has risen to 18 °C it is not too cold to get out of the water either, which is much appreciated by Susi.



And all around the hot spring there are small springs happily bubbling and steaming along



We even find a hot water stream where algae grow! We are surprised about the resilience of it



We can see a face can't see it? [Click here to see it](#)



Spider nets are transformed into diamonds by the condensing steam



On some rocks some sort of a moss grows that obviously is licked by the vicuñas
Too soon it is time to leave this great spot again.



We know that we will have to cross a pass with 4713 m above sea level before we can reach Isluga on "only" 3800 m altitude where we want to stay for the night.
We have learned that we sleep much better if we keep the altitude below 4000 m above sea level.

After the Termas the road deteriorates.
It is not used by mining vehicles so nobody maintains it

We come past some nice scenery and reach the **Parque Nacional Volcano Isluga**.



There is fumarolic activity at the **Volcano Isluga** and some lava flows from previous outbreaks can be seen.



We reach **Isluga** and find ourselves a nice spot along the river to stay for the night.
Again the temperature drops ... not as bad as last night but -10.5°C is still very cold



On Sunday morning we visit Isluga, a little town that for most of the year is deserted.
It is used by the Aymara people as ceremonial centre.
The only inhabitant is the care taker of the church.



The church was built in the 17th or 18th century purely from adobe bricks.
The Spanish missionaries often deliberately built their churches next to the ritual meeting places of the Indians.
Under the pressure of the Spanish and the Catholic church the Aymara combined their religious believes with the Christian ones.
The Aymara don't celebrate their own celebration in the church but on a large area just beside the church still within the church walls



Past some more great mountains we reach Mauque.
There we turn off towards the geyser field of Puchuldiza.
The road gets a bit bumpy in one instance, a combination of tilting road and wet and slippery surface, we think twice about driving through



But all goes well and we reach **Puchuldiza**, with approx. 4200 m altitude one of the highest geyser fields in the world.
The hot water shoots into the air and where the drizzle falls to the ground in winter salt-ice-hills start growing



The hot springs have created a terrace of sinter and salt.



Nature at its best



There is a pool with a great view.

As there was not much water flowing into the pool for our taste the water was too cold and we gave the bath a miss



By now it is a tradition that Susi boils eggs in the geyser

We return to the CH15 and then deviate to the A465.

But the road is under construction and we have to deviate to the A565.

Luckily the GPS knows all the little tracks in this area



We reach the **Quebrada de Aromas** and drive up towards the pass between the **Cerro Aroma** and the **Volcano Cariquima**.



The road is an excellent dirt track and seems to have maintained recently. We climb and climb and eventually reach snow on the side of the road



We reach the pass with 5091 m above sea level.

This is a new record for the OKA and us.

The view down into the valley looks good and we decide to drive down.



But it is the shady side of the valley, where the sun does not shine in the afternoon thus the snow does not melt too quickly and the ice stays longer

The amount of snow on the road varies.

We have to be carefully because getting stuck at this altitude would not be a good idea and we have to decide from section to section if we want to drive through or not.

After 5 km and still at 4826 m altitude snow blocks the road.

It looks like the snowplough has stopped turned around and driven down the side of the hill into the valley

What now?



We check the situation on foot.

We can see another tire track going down into the valley but decide that this might well work for small 4x4 cars but not for our OKA.

The risk of getting stuck far off any road with no chance of being able to return is too big. We will have to return to the other side of the pass again and take the long way round

When we reach the icy part we are a bit worried if we will make it or not.

But the still relatively new tires that the OKA has have excellent grip and the OKA drives up the steep and icy section without a problem.

We drive all the way back into the valley and ask some workers if there is another way back to the bitumen without having to drive all the way around the construction site.

They tell us that at night nobody is working and we should have no problem getting through, there are no ditches at the moment.

With these good news we take the much shorter way back to the CH15 and just at night fall reach the road where we had come from Puchuldiza a few hours ago.

As we cannot continue on our Altiplano Route we decide to descend to Iquique and get all organised with the spare parts that are on the way to there.



So on Monday, July 15, we start the descent into the valley, at least 3000 m
 The road is excellent and the traffic very fast.
 Every so often a smashed car is placed in good spots to remind drivers not to speed.
 Once we leave the mountains the road rapidly starts sinking.
 The road leads on top of a ridge and we can look down into the valleys.

In the guide book Susi finds that in La Tirana from July 10 to 16 there is la **Fiesta de la Tirana**, a religious festival dedicated to the Virgen del Carmen.
 Over 100 groups dance night and day decked out in colourful costumes and spectacular masks."

The legend behind the Fiesta de la Tirana is sad and comparable to the legends of Tristan und Isolde at Britain The Lovers of Teruel (Los amantes de Teruel) in Spain.
[Click here](#) for one version of the story.

The Fiesta de la Tirana is the biggest geographically localized religious festivity in Chile, the faithful arriving from various parts of Chile, Peru and Bolivia.
 The town of La Tirana which normally has a population of approx. 560 inhabitants explodes for the "Diablada" to 150'000 and 200'000 people.

So we decide to have a look at the event.
 As we drive towards the town we are stopped



There has been an outbreak of the H1N1 (bird flu) virus in the north of Chile and 5 people have already died.
 With the large amount of people that is expected the government as a precaution is compulsory vaccinating every person that wants to go to the festival.
 We have the choice to get vaccinated or not to go so we vaccinate even though we are fully aware that we will only have the "protection" of the vaccine after we have already gone home ...



As we drive towards La Tirana we see small groups of pilgrims walking the 10 km from the junction up to the church as sacrifice for their requests.
 Buses and taxis with visitors drive towards the little town.
 They have organised a real taxi- and bus station.

But we are surprised about the small amount of traffic.
 Due to the fear of the people regarding the bird flu it looks like there are not as many people coming to the festival.
 Lucky us!



All what can be rented out as "room" is prepared; many "accommodations" are nothing more than some banged together wooden panels.
 As it almost never rains in the Atacama Desert these "building" can survive for many years.



Upon arriving at the village the pilgrims sing different songs.



"Las Diabladas" are very old dances (baile) to honour the Virgen del Carmen.
 Each "baile" must have a number which will be given to the group according to their arrival time at the outskirts of La Tirana.
 A "baile" without number cannot enter the temple and cannot participate in the subsequent procession.



Many costumes and masks are clearly interpretations of Chinese carnival masks.



Many Chinese were brought by the British to work in nitrate factories and brought their carnival with them.
 Therefore the dances are called "bailes chinos" or Chinese dances.



Every dance consists of not more than twenty people led by a leader or "Caporal" who is wearing the costume that identifies the group.
 The dance is guided and disciplined by the "Caporales" (women or men).



Many groups also have a wolf, a devil or a fantasy character



The dresses are embroidered.



Many designs have a symbolic character.



"La Diablada" (Diablo = Devil) represents the struggle of good against evil, guided by the Archangel represented by a little girl. The men dance holding their fists up in the air performing the same steps as the ladies (china supay). The ladies keep their hands on their hips flirtatiously dancing with the evil. All groups dance to the same song which is played live by a professional brass band accompanied by a percussion group.

[Click here to watch a movie on the Diablada dance in La Tirana](#) (file type: .wmv, size: 14'733 KB).



Each group brings their local Virgin Mary with them all richly decorated some of the costumes even reflecting the colours of the dance group



.... some even with own lights and generator!



Each group has drums and even the young ones already exercise



On July 14 after 1 PM the groups can start entering the church according to the number they had been given on their arrival in La Tirana. Each group dances through the streets of La Tirana before entering the church; the route is determined by the "caporal" of each group. If a group arrives late they will have to request the other groups if they would allow them to enter and greet the Virgin.



We come past some souvenir stalls and wonder about the required "security" measures

After a few hours we decide to leave the spectacular festival and head to Iquique.



On the way back to the OKA we cross some more groups getting ready for their "bailes"



On the way down to the foggy Iquique we see a lot of oncoming traffic with mattresses and camping gear on their roof probably heading to La Tirana
What we did not know then is that the festival has its culmination on the night of 15 July 16!
Well, next time

We reach the Escuela de Parapente Altazor, a hang glider school that also offers camping, and settle in.
The hot shower just feels heavenly

For the next few days we get organised and contact our agent Benjamin Betanzo, who will take care of all our spares that are on the way.
Iquique is a tax-free zone and all that is replaced within the tax-free zone will not incur the 28% taxes and we are expecting a new transfer case from South Africa and a steering damper from Australia

One night somebody knocks on our door.
When we look outside we see Simon and Angelika (www.thirdgear.ch), the Swiss couple we had met in Hamburg at the truck wash.
They were just getting their vehicle, a Swiss army truck make Duro, ready to have it shipped to Buenos Aires with Grimaldi on the ferry after ours.
We had stayed in contact via email, but we thought that they were in Salta and they thought that we are in La Paz so much for updating the web pages and Facebook



We have a great time together.

On Saturday, July 20, we all leave Iquique.
Simon and Angelika will head north and we go back into the Altiplano.
Our first stop will be just before we reach the A5 again: the ghost towns of the Humberstone and Santa Laura Saltpetre Works World Heritage listed



On the way to we see this quite practical approach to get even more vehicles on a transporter

We reach Santa Laura just before closing time.
We decide to park just outside of the complex and enter tomorrow morning first thing.
But a very friendly guard invites us inside explaining that tourist in campers are invited to stay overnight within the guarded area.
How nice is that!

Shortly after three more campers arrive and are also allowed into the area.
We all have to promise to stay inside of the campers. Overnight guard dogs are released

On Sunday we explore Santa Laura.
We just know that it is a ghost town ... but what was it before that



Soon we are intrigued by the history behind these ruins.
We learn that Chilean Saltpetre (Sodium nitrate [NaNO₃]) was once an important source of nitrates for fertilizer, explosives ("fertilizer bombs") and other chemical uses including fireworks or rocket fuel

And it was only available as natural product that's why Saltpetre was called "white gold".
It was so valuable that in the "Saltpetre war" Chile, Peru and Bolivia all fought over territory containing the minerals where Chile gained much of the disputed territory.
Read more about this dispute [here](#).

The information about all this is quite interesting for Susi as she can now fill in the holes in what she remembers from her years at primary school in Lima.



The history of Santa Laura and Humberstone couldn't be any different.
Even though the two factories are so close to each other Humberstone became one of the largest Saltpetre extractors of the whole region but Santa Laura had to stop production in 1913.
Read more about Humberstone and Santa Laura [here](#).

We stroll through the buildings



..... the manager's house with a display of furniture and a pair of big bellows



... the iodine plant



..... the arrival of the caliche



..... the conveyor belt transporting the caliche to the mill



Thanks to the preservation of sites of historic interest some of the machinery in the buildings is still in good condition.

As we walk around in the building Susi hears a noise she does not like at all there is an earthquake coming

It sounds like a large truck is approaching then the windows start to clank

Susi is happy that it is only a weak one and we don't feel much of itfor Ruedi it is the first experience with earthquakes and he would have liked a bit more "action"



In the next hall the photos help to explain what the machines were used for.



In those days the whole area was covered with a rail system much of the rail equipment came from England



We like the "lavadero de mulas", the donkey-wash-station.

Due to the aggressiveness of the caliche the hooves of the animals had to be cleaned regularly.



The living quarters and the town itself have been dismantled this is more or less all that is left of it

Then we relocate to Humberstone which is basically just across the road.



The town has been well preserved.

Some equipment has been put on display along the main road.

Some houses host some small museums with artefacts collected in the surrounding Saltpetre towns most of them have completely disappeared



The toy museum tins and pieces of wire "transformed" into so many things trains made from sardine tins



... stoves, kitchen utensils, pots and pans



... electrical equipment



.... foundry moulds for all sort of things fascinating even one for the WC!



... the medical practice



The town has been preserved.



The city square had a large plaza with a gazebo ... where the band probably would have been playing on Sundays after church There was also a movie theatre which has been restored.



The large brine pits have been dismantled the ovens are skeletons



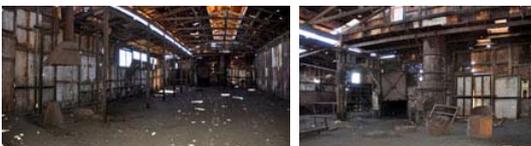
The large factory building and the workshops allow a glimpse into the past



The train roundhouse houses many skeleton of shunting engines. It gives the impression as if they dismantled one locomotive after the other one to keep the rest running



A few locomotives have been left more or less "on their tracks"



The large blacksmith's shop also contains a small foundry.



The mechanical workshop still contains many machines ... many still in working order, just some of the belts missing We leave Humberstone and take the A5 towards Huarua were we take the A15 towards the Bolivian border.



We stop at Cerro Unitas to have a look at the geoglyph of the **Gigante de Atacama** or **Gigante de Tarapacá**, which are with a height of 119 metres the largest prehistoric anthropomorphic figures in the world.



Then we take the A555 to Taparacá, an oasis in the Atacama desert.

The plan is to climb to approx. 2600 m above sea level where according to Susi's memory there should be the Termas de Lirima and stay for the night to get used to the altitude again.



Shortly after Taparacá a pretty good dirt track starts climbing uphill in a zig-zag. Quickly we gain altitude and at some 2100 m reach a barren tableland. The road climbs further and after a while cacti start appearing.

After the deviation to Coscaya the track deteriorates and becomes a bit narrow. Every so often Ruedi has to drive carefully to get around washouts.

The track climbs higher and higher but no Termas appears neither on the GPS nor in reality

Susi has mixed up the neighbouring valley with this one So we decide to take the first possibility to stay for the night ... which is at 3650 m altitude ... not really what we had planned.

Surprisingly we have no problems what so ever to sleep at this altitude.

Probably the stay at Iquique was short enough so that our bodies are still adapted to high altitude.



On Monday morning we continue on.

After only a few km we reach a good gravel road and shortly after find ourselves face to face with some large trucks. Sometimes we really appreciate the mines and their good roads.



We continue on until we reach the **Cordillera del Sillajuay** and the **Termas de Lirima**.

It is a very pretty setting but with a temperature of barely 10°C and a strong wind blowing we don't really feel like taking a bath in the hot springs A group of fiandus (*Rhea americana*) runs across the flat... and as usual they have to cross in front of the OKA!!!

We are now at the other end of the pass where we could not descend due to the snow two weeks ago.

Wondering if we can reach the pass from this side we take the A595 and drive towards the Volcano Aroma



We would like to know how high we can get from this side. The views towards the snowy mountains do not promise much and at 4650 m above sea level we reach the end too much snow on the road to get through without snow chains. We also find recently used capsules from alarm flairs looks somebody really got into trouble up here lucky we did not push our luck!



We turn back and continue on towards the south on the R97 and reach the **Salar de Huasco**.

Large groups of fiandus feed along the shores.

We also see other birds (don't ask me what they are) but just a few flamingos.

We see some strange looking clouds developing and are scared that we might hit bad weather or even worse snow!

The track deteriorates and becomes very corrugated.

Then it gets even worse and some pointy rocks make driving difficult for Ruedi.

But then we reach the A687 and the bitumen.

The road has white marks on them indicating that they use salt on it to get rid of ice and snow strange feeling haven't seen this since Europe



The weather clears up and in the afternoon we reach the **Salar de Coposa**.

The wind is so strong that the salt from the salar is blown around in clouds but this also makes the sunset very colourful

(As the temperature drops rather rapidly again Ruedi is not impressed about Susi opening the door every so often to take pictures of the sunset we only have 5°C at sunset and over night the temperature drops to -9.5°C again seems to be the normal night temperature up here

On Tuesday morning we reach the carabiñero outpost which marks the entrance to the **Collahuasi Coppermine** and check if the track towards Ollagüe is open. The information on the various electronic and paper maps was not clear. When they confirm we take the little track and follow the outskirts of the mine. But we are also warned that in this area a lot of smuggling is done (cars from Chile to Bolivia) and we should be careful and not take small tracks into the mountains



The Collahuasi Coppermine is the world's fourth largest copper mine and is partially controlled by Swiss-based Xstrata. It has one of the largest copper resources known anywhere in the world and its life is expected to last for another 50 years.

The mine is at a very exposed spot and has extremely harsh condition: 4800 meters above sea level, blizzards, lightning storms and volcanic activity in the region But they are well prepared with Snowmobiles and alpine huts throughout the mine. In view of the lightning storms the workers even wear non-conducting safety shoes!!!

Read more about the mine [here](#).



Much of the mine's water is being recycled making Collahuasi a "zero-discharge" operation.



After the mine the B-15A becomes smaller and corrugated. At times it is even a bit challenging because of the wash-outs. But after the turn off to Pajancha it is freshly graded and we can enjoy the drive down towards **Ollagüe**.

Theoretically they have a quarantine station in Ollagüe. But coming from the north we manage to sneak into town and bypass the station.



We stop at the train station and have a look at all the old equipment it could be a set out of a Western movie



Some of it feels more like an open-air museum than a running train station. But there are also modern diesel locomotives that transport goods from and to Bolivia. According to Wikipedia the railway dates back to 1872 when the territory around Antofagasta was part of Bolivia. The branch to the Collahuasi Mine reaches 4815 m above sea level and is one of the highest railways in the world. In South America it is only topped by the Lima-Huancayo line in Peru with the Ticlio Pass on 4829 m above sea level.

Read more about the Ferrocarril de Antofagasta a Bolivia [here](#).



A train is prepared for departure and all the wagons have to be opened so immigration can check that there are no illegal immigrant / blind passenger on board



This truck still seems to be in use just the glove compartment, the beer can is new



We see another group of cyclists and again are surprised about them how do they manage to ride the heavy touring-bikes in this altitude, with the strong winds, the dry air Hats off guys!



From Ollagüe the tarred R21 takes us along some more salares and pretty setting. We reach the construction and the end of the good bitumen. But it is still a pretty good road to drive on and we have plenty of time to enjoy nature



We come past the Salares Carcote and Ascotan and their volcanos



We reach another tableland and at the pass while looking at old machinery see a cargo train and it is moving!
We had been told that this track had been put out of service



When we reach a good spot for photos Susi gets out and gets into position.
Shortly after the train really arrives and the driver toots as he passes us.
Then we are passed by two red utes that rush to the train crossing.
There several men with cameras jump out of the cars and start filming the train as it drives past.
As we drive along we see the utes on and off in different locations taking pictures.



This repeats a few times until we reach the Volcan Poruña.
Then our ways split the train drives off into the sunset and we take the track down towards Calama
We valley opens up and far down we can see the dust of the mines around Calama some 1000 m further down
The track just steady heads downhill and there is nothing around us, just flat sand and stones every so often a pipe ... probably a water pipe bringing water to the mines
As there are no trees or larger rocks where we could "disappear" for the night at sunset we just pick a track that leads away from the road and stay there for the night.



On Wednesday we head further down into the valley and then drive into the valley of **Lasana**.
It is strange to find a green valley in this dead desert



The valley had been inhabited and some petroglyphs and a pukará (fortress) are testimony of the long dead culture.



The area around Calama is famous for its large mines.
The guide book says that the one in **Chuquicamata**, which by excavated volume is the biggest open pit copper mine in the world, can be visited.
Its depth of around 850 metres makes it the second deepest open-pit mine in the world after Bingham Canyon Mine in Utah, USA.
Imagine the Chuquicamata mine has 20% of all known copper reserves in the world!

Read more about the mine Chuquicamata [here](#).

We have visited the iron ore mine in Newman in Western Australia and thought that the mine was HUGE now we wonder how Chuquicamata, or "Chuqui" as they call it, will look like



As we drive towards Chuqui on a dirt track, along some water pipes that bring water across the desert to the mine, we can see a large dust and smog cloud.
Because of pollution issues in 2004 all inhabitant of Chuqui were relocated to Calama, some 15 km away, leaving behind a modern ghost town.

Read the article in BBC about the relocation [here](#).

Then we reach the bitumen road that leads to the neighbouring Toric mine and our track is blocked.
We head towards Calama and try to find a road over to reach Chuqui but every track or road is closed off.
Finally we reach a good bitumen road which leads west in the right direction and turn into it.
There is not much traffic on the road every so often some red utes cross us



The road takes us into the mine and we come past a lot of installations



.... large trucks the crusher



Then we see a warning sign regarding the large trucks and shortly after reach the crossing. We can stop right after the barrier and watch the large trucks and grader drive past.

[Click here to watch a movie on the truck](#) (file type: .wmv, size: 2'889 KB).

We reach a 4-lane bitumen highway that takes us into Chuqui.

After a bit of unsuccessful searching for the schoolhouse where the tours are supposed to leave from we find a security post and ask there.

The friendly lady informs us that since 5 years the tours do not depart from here anymore so much for our guide book which dates to 2009 when the tours had already stopped more than a year ago the tour now leaves from Calama every workday at 2 PM

Then a security ute arrives and we are escorted out of the town Tourists are not supposed to drive into Chuqui anymore

We head into Calama to stock up and then to the office of the mine to see if we can manage to get on a tour.

The lady asks for the registration code what?

You need to register on the web waiting list at the moment is 1 week

As we rarely know where we are one week in advance we decide to give it a miss next time maybe

We drive to **Chiu Chiu** which is famous for its church and because it is situated along the longest river of Chile ... the Rio Loa.



The church was built by Spanish padres in 1611 from local building material: adobe bricks and wood from cacti. Because they had no nails the cacti planks of the doors were fixed together with leather straps.



We continue on towards the Altiplano and stop at the **Laguna Inka-Coya** or "Laguna sin fondo" (bottomless lagoon) as it is also called.



We cross the Rio Salado which is formed from over 30 springs emerging from the El Tatio area. The river has carved a canyon into the volcanic rocks.

A part of its water is diverted providing water in Antofagasta and Tocopilla.

As we are now at some 2590 m altitude this makes a nice spot for the night.

At this altitude during the night the temperature only drops slightly below freezing and if required the heater would work too!!!

On Thursday morning we start the climb into the mountains on the B169 and after **Caspana** on the B159.

The dirt track has suffered with the recent rains.

But in the steep section it has been tarred.



We reach the **Quebrada Chita** it must have been pretty cold up here over night

A good but rather steep dirt track leads uphill offering some nice views out into the valley below.

We don't like the thought of being on the way down and the break malfunctioning



On the way we meet a German couple on bicycles coming from the El Tatio and have a bit of a chat with them.

It takes them 3 days from San Pedro de Atacama to Caspana.

The water in this area is not suitable for human consumption even after filtration because of the minerals it carries (that's why the river is called "salado" ... salty)

So they carry extra water for 3 days on their bikes in 20lt bottles.

Also they have to sleep in their tents twice ... at altitudes above 4000 m and temperatures at around -15°C

We admire their guts and endurance hats off guys!

But for us this is close to self-inflicted torture ... and we were definitely not born for this!



We deviate to the B245 and soon reach the snow.

Luckily it is being cleared and we have an easy drive towards the El Tatio geyser field.

On the way we come past some deserted huts and mining equipment.
 Later on on the Internet we learn that in 2008 Geotermica del Norte began exploration near El Tatio for the construction of a geothermal plant with a capacity of 40 MW.
 In September 2009 a failed prospecting drill caused a 60-meter high artificial fumarole to develop.
 The company was unable to seal it for several weeks.
 A failed attempt to close the well led to strong subterranean noises and a notable decrease of all but the most active geysers in the area.
 Carabineros had to evacuate tourists and the protesters that had gathered at the location.
 This prompted Corema, Antofagasta Region's Environmental Corporation, to stop all prospecting activities in the area.



We reach **El Tatio** and on the parking lot we meet the "Moglander", a Unimog from Ireland, with Merv and Sarah Colton.
 We had heard a lot about them because already a few times people had confused us with them makes sense if you are not an Overlander large, white, Dakar-like looking small truck, from an English speaking country

They tell us that it had been snowing for the last 3 days in the area and that they had tried twice to reach El Tatio ... without success
 They have also heard that the passes Jama and Sico into Argentina are closed and some 500 truck are stuck, camping all over the area



El Tatio is a geyser field at 4320 m above sea level.
 Contrary to some guide books it is not the highest-elevation geyser field in the world; Puchuldiza and possibly several other fields are higher in altitude.
 However with over 80 active geysers, El Tatio is the largest geyser field in the southern hemisphere.
 It is the third largest field in the world after Yellowstone, USA, and Dolina Giezerov, Russia.
 Sadly none of the El Tatio geysers erupt very high.

There are some good explanations on display on what geysers are:
 geyser are formed when cold subterranean water gets in contact with rocks that are heated by lower layers of volcanic magma.
 The hot water builds up pressure which is released through the cracks in the earth's crust.



At El Tatio the water reaches temperatures of about 85°C perfect temperature for Susi to boil eggs again
 The fumaroles (or steam vents) are produced due to the contact of the steam with the cold air and can reach heights of up to 10 meters.

There is a nice thermal pool but it is not really well done.
 At one end the entering water is so hot that one gets burned easily.
 Then the water gets cooler very fast ... too cold for us but still with some small, but terribly hot bubbling spots.
 We had a swim but stuck to the hot end of the pool always mixing the hot water with the colder one to keep the temperature bearable



As the weather does not look good we leave soon and start driving towards San Pedro de Atacama.
 We don't fancy getting caught in snow at this altitude

The track on the GPS is not correct, the dirt road has been redone and now follows the old 4x4 track.



After **Vado Putana** the weather slowly starts improving. It is still impossible for us to predict the weather even for the next few hours and being caught "on the wrong foot" out here can lead to a very unpleasant situation. So often we are too cautious.



The desert now is very dry again and some Atacama cacti, which are endemic to this area, can be seen.
 As we don't fancy camping in San Pedro at only 2800 m above sea level we find ourselves a spot in a riverbed for the night.
 For once the temperature does not drop below 0°C but stays at comfortable 7.5°C nice



On Friday morning we are visited by a curious little fox



The weather does not look good at all
 We decide to drive a bit closer to San Pedro as it is known that it almost never rains there.
 In San Pedro we meet the Moglanders again.
 They also had not trusted the weather and left the geysers shortly after us.

They give us the GPS location of the only fuel station in San Pedro which is difficult to find because the Copec is located in the courtyard of the Hosteria San Pedro de Atacama!
 Here the GPS coordinates of the gate: S 22° 54.741', W 068° 11.978'
 Then turn right to find the bowser at S 22° 54.797', W 068° 11.968'

Moglanders also give us some GPS position to stand for the night.



As some bad weather is closing in we decide to have a quiet afternoon and head to the hill behind the Valle de la Muerte.
 In the afternoon we get a few drops of rain and when the clouds lift a bit we can see that the mountains have fresh caps of snow
 It looks like once again our instincts have warned us correctly about the weather!

During the night we can hear a few drops on the skylights every so often

On Saturday around dawn we can see many head light coming down the road from El Tatio looks like the tour operators cannot get through again.
 When the sun comes up we can see that the mountains are covered with a fair bit of fresh snow and that the snow line has come down a fair bit from yesterday.



We drive over to the next camping spot which is above the **Valle de la Luna**.
 Yup, this will definitely be our spot for the night!

But today we want to visit the Valle Arco Iris.

So on the CH23, the bitumen road to Calama, we climb into the mountains again.

We reach 3438 m above sea level before we deviate to the B127 (bitumen) and start driving down toward Rio Grande.

We deviate to the B201 dirt track and soon after reach the **Valle Arco Iris**.

One basically drives along a dry riverbed on a dirt track which suddenly takes a 90°C bend and



Wow!!!!!!



The colours are just amazing!



The different colours are generated by the completely different rocks.
 The formations also depend on the hardness of the rock and how much they get eroded by wind and weather.



We stroll around the valley and once again can just wonder how these colours were generated
 Also the force that must have been behind the folding of the rocks is just amazing!



We leave the valley and take the much shorter dirt track that leads down the river bed back to the B127 and bitumen.

We turn towards Rio Grande.

In the old days the caravan route from San Pedro de Atacama to Chiu-Chiu used to go through Rio Grande which had a strategic location.
 On the map the road looks fine and in the guide book the drive to Machuca and then back to San Pedro is highly recommended.



The road leads through a nice valley.

Then we reach **Rio Grande** and the road finishes

We ask about reaching Machuca from here and they all just shake their heads not anymore hmmmm ... once again map and guide book are outdated

So here a comment to the fellow traveller:

if you want to know if your guide book is up to date then check if the mine tour still leaves at the school in Chuqui and/or if they still recommend the trip from Rio Grande to San Pedro skirting the Cordillera de la Sal

We return to our view point at the **Valle de la Luna** and set up camp.



Equipped with a sun-downer and nibbles we enjoy the change of light and colours.
More and more busses, vans and cars arrive all with their drinks and nibbles too we guess that there must be at least 100 people or more



The sun sets prettily and then we go home into the warm camper.
What a life!

On Sunday morning Ruedi discovers that the OKA is losing oil at the bell-house of the clutch. It must be from either the motor or the gearbox.
But as all oil levels are ok it can't be too much and we leave towards the Salar de Atacama.



The CH23 takes us along some active volcanos and we are not surprised to see warning signs "Zona de amenaza volcánica" (zone of volcanic danger).
After crossing the Tropic of the Capricorn we deviate onto the B379.

Close to **Peine** we take the B367, a salt/mud road, and start crossing the salar.
There is Lithium mine on the salar and this track is maintained by the mine.
We reach a lagoon where we have a closer look at the salt; it is not as pure as we know it from Australia
In some areas the track has sunk and is wet.
There is even a bypass for a section where the main track completely is covered with water ... not a very comfortable feeling



On the other side of the salar the dirt track follow a mountain ridge and Susi climbs up to get a good view of the mine.

We reach the B385 and suddenly there is a fair bit of truck traffic.
Once more climb to 2892 m altitude and then slowly descend into the valley.
It is a rather boring stretch of bitumen road mine after mine and lots of traffic
Funny enough we realise that there is much more oncoming traffic than in the direction we are driving
Could it be that they make one trip a day and now all are on the way back to the mine to be filled up again?
We don't know

In this area it is very difficult to find a spot for the night.
But we are lucky and find a track to the power station where we can find a bit of privacy for the night.

On Monday, July 29, Ruedi attaches a Coke bottle below the fly-wheel to measure how much oil we are losing per day.



We continue down into the valley and come past some more mines.
Some like the **Lomas Bayas Mine** are quite large.
All the mines in the Atacama Desert have a limited water supply and therefore also a dust control problem.
Because the water has to be pumped for 135 km to the mine site they cannot just spray the site with water to contain the dust.

Today the traffic is normal, trucks driving in both directions we still wonder, why not yesterday, why they were all driving toward the mine

We reach **Baquedano** where we look for the former train station and main node of the Ferrocarril de Antofagasta a Bolivia.
The trains running the Antofagasta - Ollagüe - Uyuni line would cross here with the north-south line, Calera-Iquique.
Due to the nitrate and mining activity in the region Baquedano had great movement of cargo and passengers.

This station according to our guide book has been turned into a museum.
The museum does not exist anymore and the once busy train depot is turned into a train cemetery
But the good thing is that there is no real fence around it so we have a closer look.



The roundhouse still is home to some locomotives.
Even though they have been vandalized a fair bit it is good fun to have a closer look at them.



Whole trains and lots of spares are still at the station as if they are waiting to be taken under steam again

We take the R5 in northerly direction.
It is under construction and will be turned into a 4-line highway.



A lot of heavy machinery is being transported.



We first think that is for the mines but later on we see that many of the former Saltpetre Works have taken up production again and new works are being built on the old sites.



We detour to the B180 and the **Oficina Pedro de Valdivia**, a former Saltpetre town. Pedro de Valdivia was built in 1931 as the last and most modern of the Saltpetre Works.



Almost 7000 people worked here.

Like the majority of the Saltpetre Works it was a true city equipped with all facilities and services necessary for the daily life of workers and managers, forced to live in an isolated and barren place like the Atacama Desert. Even now in the middle of winter the temperature during the day is around the 30°C mark



It even had a hospital that was built adjacent to the church.



It had a swimming pool, a theatre, a school which in its hey days (1934) had 491 students, 243 girls and 248 boys.



In 1986 the school of the town was moved to Maria Elena. In 1996 Pedro de Valdivia closed down and many workers and their families relocated to the neighbouring town of Maria Elena.



Today some parts of the old plant are being used again.



A new plant is being built beside the old one the new train already transporting the goods between Maria Elena and Pedro de Valdivia



Our next stop is Coya Sur ... another once dead mine coming back to life

Reason for this revival is that they have found out that the artificially made Saltpetre is not as good for plants as the natural Chile Saltpetre. Now the prices have skyrocketed and the industry is picking up rather quickly.



The cemetery of Coya Sur is quite special. Many of the graves are placed in little wooden chalets like we are used to see in allotment gardens in Switzerland. The chalets are equipped with different things, some of them with benches and chairs, a stereo system, so one can have some time with the dead ones some house a collection of personal items of the deceased like sports trophies, etc. It is definitely worth a visit should you come past!

The next stop is **Maria Elena** (the official name was Coya Norte).



Together with Pedro de Valdivia they were the largest Saltpetre refineries with a combined output of over one million tons per year.



In 1996, after the closure of the Saltpetre office at Pedro de Valdivia, Maria Elena became the only active Saltpetre mining community in the country. A strong earthquake (7.7 on the Richter scale) with its epicentre just 80 km away hit the town in 2007. Even though the damage caused to the historic buildings was huge, there are still a few fine houses left in town.



But the mine is expanding and modern buildings are starting to appear. The Alcaldia (local administration) is also a modern building with a nice mural inside. We would be interested in visiting the mine and ask at the mayor's office. The lady enquires and lets us know that we might have a chance on Wednesday and should come back tomorrow and check. We head over to the Rio Loa for the night, where the CONAF (Administration of National Parks) is planting trees. Ruedi checks the oil in the Coke bottle and relaxes when he only finds some 50 ml of oil in itthe leak cannot be that bad



On Tuesday morning we return to Maria Elena. In the bright sunshine the town looks so similar to the abandoned town of Pedro de Valdivia just freshly painted and alive! At the Alcaldia much to our disappointment we are informed that they have decided not to have any more individual tours this year we should ask again next year by then they will have organised a standard tour we would be able to join. We continue travelling north on the R5. One ex-Oficina after the other is listed on the GPS but only ruins and cemeteries remind of the once glorious times of the Saltpetre boom.

In **Quillaga** we come past a quarantine station but they only check the south-bound vehicles.



More and more geoglyphs can be seen. We come past some mines like **Laguna, Nueva Victoria** where not only Saltpetre is mined but iodine and other minerals.



We reach the geoglyphs of Cerro Pintado, where on some 50.000 m2 more than 420 figures representing men, animals and abstract figures can be found.



Radiocarbon dates obtained indicate that most of the geoglyphs were created during 900-1450 years A.D. This was a pre-hispanic caravan path of about 150 km longitude connecting the Pica oasis with the Pacific coastal ocean. Some theories exist that the geoglyphs may have been some sort of sign-posts for the caravans on where to find water and what route they should take.



We take the A75 and then the A665 to the oasis of **Matilla**.

The church was built in 1887 with blocks of borax and reminds of the Sacré Coeur but in the desert it is actually called Sacré Coeur del desierto.

The village used to have large orchards but when in 1912 the waters of the Quebrada de Quisma were diverted to Iquique not enough water was left for the orchards



The neighbouring town of **Pica** is in better shape as it has enough water from its Termas.



But here too some historic houses need a bit of loving care

We stay one more night close to La Tirana and on Wednesday, July 31, "dive" into the fog of Iquique again.

We intend to stay in Iquique for the next few weeks waiting for spares having repairs done on the OKA

In the night from August 5th of the sudden the OKA starts shaking with about 3 Hz as if strong winds were moving it

The next morning we check the web and find that it had 5.1 on the Richter scale and the epicentre was some 60 km west of Iquique.



During the day "Moglanders" show up and we have fun again.

On Wednesday we have to be at Cummins early in the morning.

They want to have a look for the reason of our oil leak.

As the oil is black it looks more like motor oil but it could also be from the gearbox

Cummins suspects the seal of the crank shaft of the motor, Ruedi a worn Pilot Bearing and the seal at the input shaft of the gearbox due to the vibrations we have for a long time on the shift-stick.



It takes a full day to take gearbox, clutch and flywheel down.

The engine is fine and the oil comes from the gearbox.

As predicted, the pilot bearing between motor and gearbox at the fly-wheel is worn and has to be replaced.

Luckily Ruedi has a spare as it is a very special part.

But the worn pilot-bearing has generated strong vibrations in the gearbox which have damaged the thrust-bearings in the gear box.

We try to get a replacement in Iquique but have no luck.

So we stay at Cummins for the night.

On Thursday a Tsunami exercise is planned for the whole north coast of Chile.

We are briefed and are ready for whenever the alarm will sound.



Shortly before lunch the sirens go off and we have to assemble in the security area.

Then the whole plant is evacuated, only the security guards stay.

All employees are lead to the secure area.



As we walk streams of people come from everywhere.

All is well marked but the sign-posted way heading up the hill is much too narrow and we are happy that this is just an exercise and not a real tsunami threat

For the responsible at Cummins this exercise also has been an eye-opener.

They now know that in case of a tsunami they will not follow the signs but take the main road which is wide and not much longer

The day goes past and we still have not been able to get the required bearing.

So we decide to order it from the USA.

Much to our frustration the companies that sell these bearing do not send any packets out of the USA.

We must deliver an address in the USA to them and then arrange our own dispatch of the packet to Chile.

Once again we are surprised how far "behind the moon the Americans" life.

It seems for them the world still ends at the U.S. border

(Hello NSA: We hope we will still get an entry visa for the USA should we like to get one

Luckily one of our friends had just recently relocated to the USA and helps us.

For the time being we reinstall the almost completely destroyed bearing and hope that it will survive the 2 x 12 km from Cummins to the Flightpark and back to Cummins

On Friday we are informed by our agent that the transfer case from South Africa had arrived in Iquique and that he will have it delivered to the Altazor Flightpark.

Susi takes care of that while Ruedi reassembles clutch and gearbox with the mechanics at Cummins.

On Saturday, August 10, we limp back to the camp at the Flightpark and "station" the OKA.

From now on we will use our bikes to get around Iquique.



On Tuesday and on Wednesday we replace the transfer case.

By now we know pretty well how this work has to be done.

On Thursday frantic work is going on at the roller-skate place.
It is converted to a roll-hockey rink for a tournament that will be held over the long weekend.
As roll-hockey is not supported by sponsors in Chile all work is done on voluntary basis.

Three Teams from Santiago will fly in but all costs are carried by the clubs themselves!

On Friday for once the sun is shining and we can enjoy the games.

Four teams will play; the Santiago Storm, the Black Star Hockey Rollers and the Reptiles from Santiago and the local team, the Drakon's Hockey Iquique.
Most probably we are the only no-team-related spectators



Of course we fan for "our" team, the Iquique Drakons.



This must be one of the nicer settings for a roll-hockey match



In between games the local roller skating club has a show.

Then the Drakons play and win against the Reptiles.

Well done boys!



On Saturday the Drakons are not lucky and loose against both the Santiago Rollers and the Black Stars.

It is quite obvious that the Santiago Rollers and the Black Stars are in another league than the Iquique team.

When we ask "our" team they explain that they usually have foreign players but they work at the mines and did not get time off for the games



Again the skating club has a show it is so cute to see with how much love the girls have been dressed up and styled.



The next generation is ready too yes, girls play too.

The best teams have ladies as goal keepers!

On Monday we have another earthquake.
But the people in Iquique are so used to them that they not even notice the weaker ones

On Monday also the bearing from the USA arrive.

Now we can arrange the exchange with Cummins.

As they are pretty busy we have time to explore the surroundings of the Flightpark.



Just behind the Flightpark the sand dunes start.

That makes it so loved by the hang glider pilots as they can basically fly to the front door

Iquique is one of the few places worldwide where they can basically fly everyday the weather is almost never an issue



The "hotel" which is located at the southern end of the city is made from white painted containers that are piled on top of each other.
After the last strong earthquake they had to weld them together as they were almost shaken down.

Also one road that leads down to the coast behind the park collapsed.

(the coloured containers in the back of the photo belong to a depot for empty containers and are not part of the Flightpark)

During the night we have another earthquake.

We can feel it quite well but it is difficult to judge how strong it is.

The next day we check the Internet: epicentre 83 km east of Maria Elena, magnitude 5.7

On Sunday the sun is out and Susi takes the chance for a visit to Iquique to take photos.



Iquique is a narrow city, squashed in between the ocean and the approx. 600 m high mountains behind it. Due to this the city has long beaches which are used for all sorts of activities by all sorts of characters. Here some impressions of a friendly, safe and liberal city



.... children's playgrounds watch the father's hand remote control for the boy's car!



.... skate park the guys are pretty good some spray-paintings and cartoons



Iquique is a bicycle city with even some of the carabineros on bicycle



Iquique is a mining town. The red utes (pick-ups for the non-Australians) which are used in the mines are omnipresent



..... some rubbish bins are "personalized"



Iquique has large green areas that are watered every day. Also the streets are constantly cleaned which makes tired and allows for a nap at lunch



.... the spot to sell / buy campers



... the old fish market



Besides the casino some more beach ... the famous Cavanha Beach but beware, due to the Humboldt current that brings cold water from the South Pole even in summer the water is cold!



So if you intend to surf or body board a bit don't forget your wet suit!



Not everything is that shiny in Iquique there are homeless there too



The Avenida Baquedano goes from the Plaza Prat down to the ocean just beside the Colegio Ingles. It is a lovely place to go for a walk



... the Avenida Baquedano



... many of the houses have been renovated or at least repainted



.... some are still waiting for it



Some houses have an Asotea, sort of a sun roof that keep the heat away.



... the tram along the Avenida Baquedano walking is faster



... the Sociedad Protectora de Empleados de Tarapacá, one of the first union houses of Chile, just beside the Teatro Municipal at the Plaza Prat



.... one of the many bank buildings the Croatic Club the Centro Español, built in Moorish style



..... pretty wooden houses



..... the "jungle" of Iquique's power lines



.... a nicely restored sailing ship ... the old Aduana (customs house), today the naval museum



... the new fish market and its "inhabitants" always waiting for a bit of scrap



... and some more historical houses throughout town and there are plenty more!

On Monday, August 26, suddenly we see the truck of Richi and Fränzi, a couple we had met in La Paz, drive into the Flightpark. We ask them where the Swiss Zebra Crew and Simon are (two other parties we met in La Paz), if they were not travelling together. They are on the way but have deviated to the Colca Cañon on the way and Fränzi and Richi had already seen the Colca Cañon.

We have a good time together and on Wednesday they leave again.

On Thursday, August 29, we take our bicycles into town to get some oil for the planned repair of the gearbox of the OKA.

At the beach we see the truck of the Swiss Zebra Crew.

We find out that the Toyota from Simon had been broken in overnight and they were just trying to get a new window for it.

We tell them where they can camp safely and later on they also arrive at the Altazor Flightpark.



Time flies and we enjoy the time together. Lots of the overlanders travelling South America meet at some time and therefore know each other. Many keep in contact by mail and know more or less what everyone is doing. It's always good fun to meet each other again for a few days and to chat about what all happened in the meantime.

On Sunday, September 1, Fabian, a hang glider pilot, is in search of passengers for tandem flights.

First Carol goes then Susi.



The departure spot is in **Alto Hospizio** at 600 m above sea level

Fabian gets the wing ready but at the moment the wind is too strong for a save start, Susi and Fabian are blown backwards



But after a while the wind settles down and they take off.

Fabian expertly lands the hang glider in the sand dunes behind the Flightpark.

On Sunday morning we have another earthquake magnitude 4.7, epicentre in Pozo Almonte, some 57 km from Iquique but we can feel it quite well at Iquique.



Later on it is Ruedi's turn to go for a flight with Fabian.

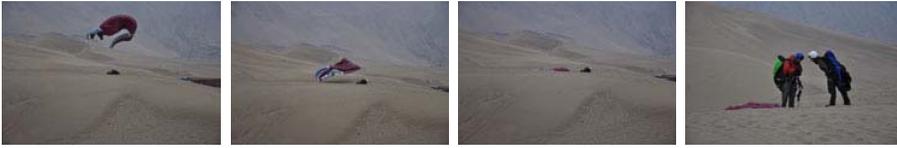
His flight takes him all the way over Iquique down to the beach the landing is a bit less perfect as it was with the ladies

Even so it was fun, Ruedi decides that hang gliding is not his thing there is no "plan B" if something goes wrong - that's it - end of the story

In the afternoon it is Simon's turn and Ruedi has a chance to show us how his landing was



..... approaching ready, to start running



.....hmpf! so much for running but all goes well.

On Tuesday the OKA is fixed. One week later the steering damper arrives from Oz and on Tuesday, September 10, we leave Iquique in direction of Lima ... and this is the end of this journal!

Addendum:

Susi likes the atmosphere of the ghost towns so much that she decides to add a few of the pictures from above in black and white to this album too.

Baquedano Station



..... somehow it shows the sadness of the dead trains a bit better



..... lonely abandoned forgotten

Oficina Pedro de Valdivia



Emptiness no colour distracting the eye just history



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