

Matienzo Caves Expedition 2018



Traverse
Torca del Mostajo

Cave exploration during 2018

This report covers the expedition's speleological work in the permit area shown in figure 1 below. The area covers the municipal authorities of Solorzano, Entrambasaguas and Ruesga north of Cruz Uzano. The permit also covers work in Cueva Vallina which was proved to link hydraulically with the South Vega system in Matienzo in 2016.

In December 2017 and up to September 2018 almost 6km of new passage was surveyed. The main finds included:

- Extending Cueva-Cubio del Llanio by over 800m to where it runs above the 60km Four Valley System, with the link to be pursued in 2019
- The continuation of the pushing and surveying of Valine upstream in Rio Rioja with over 700m added to date
- Pushing Cueva del Bosque (0373) to a depth of 204m and over 1km in length
- Extending Fuente Aguanaz by over 400m through several short sumps
- Extending Cueva Fresnedo II by over 600m with open leads left for 2019
- The discovery of the 167m deep Drone Pot with passages still to be pushed off the main pitch that could link into the 35km long South Vega System.



In addition to this 168 new caves and sites were found and located, and many were explored – all the details of these and comprehensive information on all the work which the expedition has done

can be found on the website <http://matienzocaves.org.uk>. The numbers given to caves in this report are those used in the database of caves found on this website.

Fifty different cavers took part in the 2018 Matienzo expedition at various times during the year. However, the main work took place at Easter and during the last part of July and August, with smaller groups working at other times over the whole year preparing for diving in Cueva Vallina, and finding, digging and recording mainly new sites.

Scientific Studies

During the Summer part of the expedition, a visit was made into Torca la Vaca (2889) in order to examine gypsum deposits in Ed's Birthday Passage with a French team of geologists, including one undertaking a post doctorate project on dolomite and gypsum formation. The joint team found the area to be very interesting and thought that it would be a good study site. This, together with the paper "Characteristics, genesis and parameters controlling the development of a large stratabound HTD body at Matienzo (Ramales Platform, Basque-Cantabrian Basin, northern Spain) "



published in Marine and Petroleum Geology in 2014 (<http://matienzocaves.org.uk/science/HTD-Matienzo.pdf>) have led us to consider the possibility of hypogene cave development in the Matienzo area. Some initial thoughts on this have been produced by Peter Smith (<http://matienzocaves.org.uk/science/Hypogene/Hypogene-ps-2018a.htm>) on our website with the view to simulate discussion and further work.

Research by PhD students developing paleoclimate records for the last 40,000yrs, continued in 2018 in Cueva de las Perlas (0074) under the supervision of Dr Peter Wynn of Lancaster University working and assisted by members of the expedition. This phase of the work ended this autumn with the second student (Laura Deepprose) receiving her PhD. Study in our area will continue in 2019 but move on to look at possible means to study nitrate levels over time, and if successful it may then lead on to appointment of further PhD students to work in the area. The results of this work will be linked on our website when the relevant papers developed from her thesis are available.

Hydrology

Work continued on the hydrological work agreed at the SEDEC conference at Ramales del la Vitoria in 2014. An updated table of tests is copied below.

In 2019 four tests were carried out:

1. Over Easter 2018, five litres of optical brightener was injected into a shaft (1969) next to the Alisas to La Cavada road just below the top at an altitude of 622m and detected between 2 and 3 days later at Fuente Aguanaz (in flood conditions). Other caves checked for OBA included Comellantes, La Riega and Wild Mare. These all proved negative. This test demonstrates the large catchment of the Fuente Aguanaz resurgence and the speleological potential that is still to be realised.

2. After Easter three tests were carried out in the Hornedo area, where our tests in 2017 had proved inconclusive. Over a period of time in order to allow the OBA to disperse between tests, OBA was put into Caves [3010](#), [3566](#) and [4658](#) with detectors in a resurgence, [3282](#), that feeds the Santa Juliana Stream. All three tests were positive after a few days, showing the catchment of [3282](#) has a catchment extending at least 1.3km with a loss of altitude of 95m, demonstrating some potential for further cave in this area.

Water tracing to a resurgence						
Trace map code	water source	positively traced to ...	time	agent	date	more information
FA-01	downstream Cueva Cobada	Fuente Aguanaz (San Antonio)	5 - 7 days	OBA (Tinopal CBS-X)	13/4/2006 - 18-20/4/2006	<ul style="list-style-type: none"> website article NW area (2011)
FA-02	Sinks at Alisas	Fuente Aguanaz (San Antonio)	?	?	?	Notice boards at Fuente Aguanaz
FA-03	Duck Pond Sink	Fuente Aguanaz (San Antonio)	4 - 7 days	OBA (Leucophor)	27/3/2016 - 2/4/2016	logbook 1
FA-04	El Cubillón	Fuente Aguanaz (San Antonio)	6 - 8 days	OBA (Leucophor)	23/4/2017 - 4/5/2017	<ul style="list-style-type: none"> logbook 1 web page
FA-05	site 1969 near Alisas	Fuente Aguanaz (San Antonio)	2 - 3 days	OBA (Leucophor)	10/4/2018 - 13/4/2018	<ul style="list-style-type: none"> summary table
BO-01	Green Choke, Cueva Hoyuca	Los Boyones (Secadura) via Duckham's Sump and Cueva Lluva	7 days	fluorescein	12/8/1976 - 19/8/1976	logbook
BO-02	Sumidero de Carcavueso	Los Boyones (Secadura)	10 hours	fluorescein	12/4/1965	<ul style="list-style-type: none"> Fernández Gutiérrez Juan Carlos, 1965 4kg used 4VS Hydrology (2012)
CO-01	downstream Cueva Vallina	Cueva del Comediate (La Vega) via Reñada sump 1, but not Squirrel's Passage.	8 days	OBA (Leucophor)	2/4/2015 - 10/4/2015	<ul style="list-style-type: none"> website, Easter 2015 SVS Hydrology
CO-02	site 4246 (Hoyón depression)	Cueva del Comediate (La Vega)	4 - 7 days	OBA (Leucophor)	7/4/2016 - 10/4/2016	website, Easter 2016
CO-03	Torca del Hoyón	La Cuevona (newly added Comediate detector was negative)	16 - 19 days	fluorescein	7/8/1985 - 26/8/1985	logbook 1 : 2
ES-01	Hoyo Mortiro	Cueva Esquileña (between Riba and Ogarrio)	1 hour	fluorescein	28/12/1965	Fernández Gutiérrez Juan Carlos, 1966
ES-02	Cueva del Orillón	Cueva Esquileña (between Riba and Ogarrio)	< 2 days	OBA (Leucophor)	24/11/2015 - 26/11/2015	<ul style="list-style-type: none"> logbook 1 Summary diagram
4272-01 ES-03	Cueva del Orillón	resurgence 4272 then Mortiro to Cueva Esquileña	< 2 days	OBA (Leucophor)	16/01/2016 - 20/01/2016	<ul style="list-style-type: none"> logbook 1 : 2 Summary diagram
JI-01	site 3886	Cueva de Jivero 1	3 days?	OBA (Leucophor)	11/3/2015 - 13/3/2015	logbook 1 : 2
JI-02	site 3884	Cueva de Jivero 1	< 3 days	OBA (Leucophor)	13/2/2016 - 16/2/2016	logbook 1

	Cueva de Loca II	Cueva and regato de la Reguera (??)	2 days	fluorescein	28/09/1965	Fernández Gutiérrez Juan Carlos, 1966
LI-01 TR-01	Sima-Cueva del Risco	La Lisa and Cueva del Transformador via Cueva de Tiva	5 hours	fluorescein	12/4/1965	Fernández Gutiérrez Juan Carlos, 1965
LO-01	Cueva del Selvijo	Cueva de Loca I	7 hours	fluorescein	10/10/1965	Fernández Gutiérrez Juan Carlos, 1966
LO-02	Cueva del Orillón	Cueva de Loca I (light green)	8 hours	fluorescein	31/10/1965	Fernández Gutiérrez Juan Carlos, 1966
RI-01	Torca del Hoyo la Encina (Moncobe)	La Riega below Cueva la Verde	c. 14 days in a dry spell	OBA (Leucophor)	23/10/2016 - 7/11/2016	website, autumn 2016
1614-01	Fuente las Varas Pot	tiny resurgence, site 1614	2 hours	fluorescein	9/4/2001	logbook 1 : 2
	Tizones area				1965 October	(Matienzo 50 pp12, 14)
3282-01	site 3010 (N Hornedo)	3282 (inconclusive)	(5 days)	OBA (Leucophor)	17/10/2017-22/10/2017	summary
3282-02	site 4658 (N Hornedo)	3282 (no control)	(1 day)	OBA (Leucophor)	5/2/2018-6/2/2018	card index
3282-03	site 3010 (N Hornedo)	3282	(2 days)	OBA (Leucophor)	27/2/2018-1/3/2018	See site descriptions
3282-04	site 3566 (Riaño)	3282	(2 days)	OBA (Leucophor)	12/5/2018-14/5/2018	See site descriptions & logbook

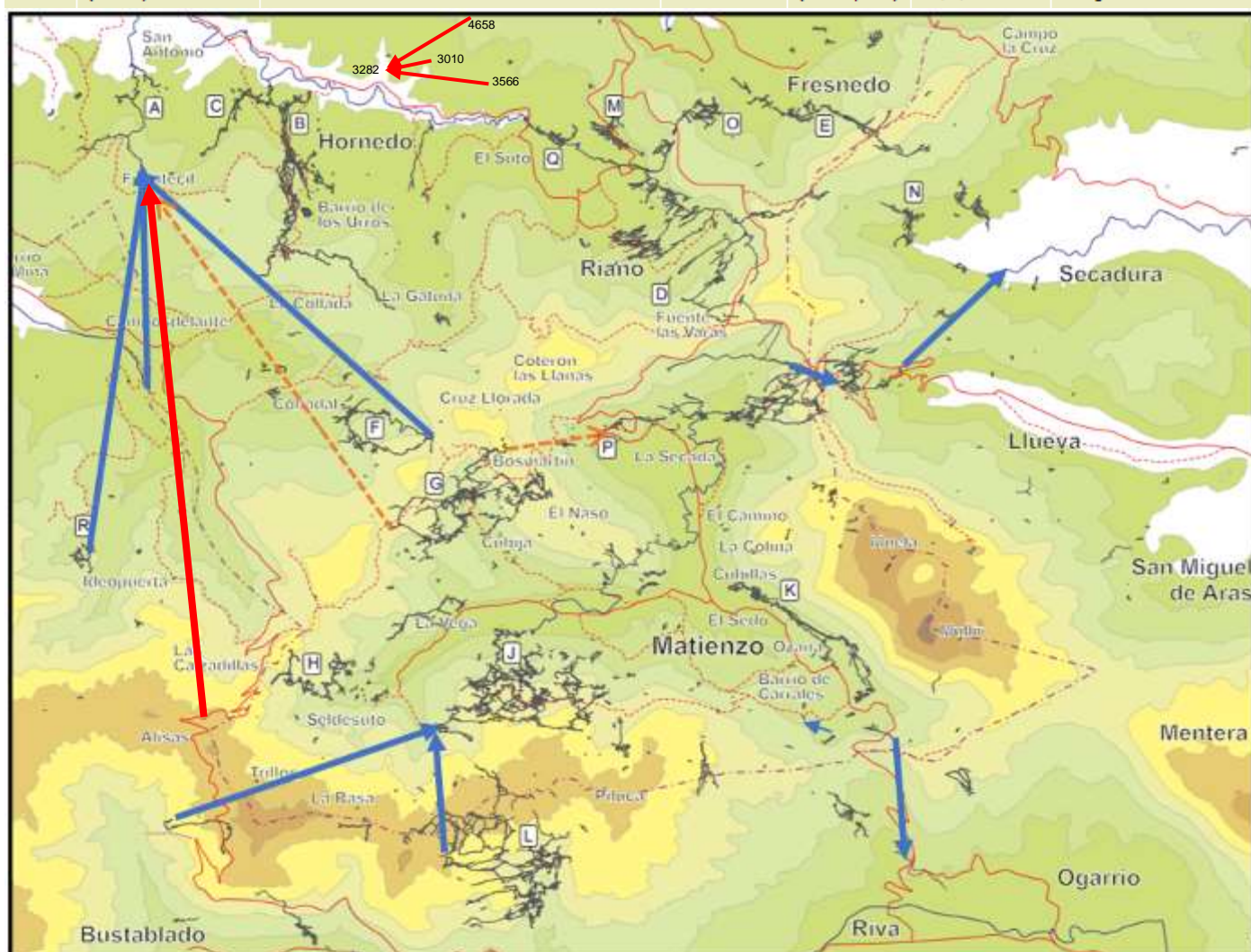


Fig 2 – Main hydrology tests – blue arrows are proven tests carried out in previous years, the red solid lines are the tests in 2018 and the red dotted arrows are possible routes to be tested in 2019 if weather is suitable.

More work will be done in 2019 when the weather (sufficient water flow) is suitable. A key site is the North Vega System that was not able to be done in 2018 (marked G on the map below) which could have water in the east flowing to Secadura via the Four Valleys System and in the West to Fuente Aguanaz, shown as red dotted arrows on Figure 2.

MATIENZO CAVES PROJECT 2018 - new surveyed cave passages					
Cave	Name	Area	Previous Length (m)	New Length (m)	Extra Length (m)
733	Cueva Vallina	Arredondo	34234	35032	798
373	Cueva del Bosque	North Vega	266	1022	756
841	Cueva Fresnedo II	Fresnedo	8977	9578	601
4669	Torca del Dron	South Vega	0	475	475
713	Fuente Aguanaz	San Antonio	3186	3602	416
138	Cueva de Coberruyo	El Naso	200	539	339
3234	Cueva-Cubio del Llanio	Riaño	6097	6959	862
383	Fuente de Escolar	Riaño		276	276
4474	Shaft	Moncobe		198	198
105 & 81	Sistema de Cuatro Valles	Riaño & La	59101	59282	181
4774	Cueva Buena Suerte	Cruz Usano		174	174
25	Sima-Cueva del Risco	El Sedo	11467	11580	113
2889	Torca la Vaca	Hornedo	23696	23783	87
252	Cave	La Secada	0	82	82
4713	Cueva ESP	Riaño	0	63	63
565	Tres Ninos	La Secada	611	674	63
4787	Dig	La Cantera		59	59
4699	Shaft	San Antonio		56	56
71	Toca del Mostajo (NVS)	Cubija	22408	22439	31
76/1403	Cave	South Vega	160	190	30
1298	Dig	Seldesuto	0	26	26
4714	Cave	South Vega		22	22
4791	Cueva del Disto	South Vega		21	21
4142	Dig	Riolastras		19	19
4712	Edraith's Hole	Riaño	0	19	19
4794	Cave	South Vega		18	18
4417	Cave	South Vega		18	18
4795	Shaft	South Vega		12	12
138	Cueva de Coberruyo	El Naso	200	210	10
4799	Cave	South Vega		4	4
2522	Dig	Fresnedo		4	4
4793	Cave	South Vega		3	3
Total New Cave Surveyed					5836

Minor sites and finds that were not accurately surveyed are not listed here, but all details are available on our web site (<http://matienzocaves.org.uk>), including surveys and photographs.

Southern Sector (Vallina, South Vega, Alisas, North Vega, La Colina and Ozana)

In **Cueva Vallina (733)** The work to dive the downstream sumps was hampered by the very wet weather in the first part of the year. Preparation for diving using a rebreather were made but high water levels with almost nil visibility stopped an attempt to push further before Rupert Skorupka

had to leave in late July. Work will continue in Autumn 2018 and in 2019 on this key project to connect the system to Cueva-Cubio de la Reñada. While waiting to see if water conditions would improve, Rupert carried out a number of solo trips to climb the Jochen's Aven at the end of FN passage, Despite poor rock and loose boulders, he managed to climb some 35m and complete two traverses, leaving them rigged – but great care is needed on these due to the poor rock for the anchors and loose rock. A number of leads were noted including a boulder choke that looks to lead into a big passage and other passages needing more climbing to enter. This area has good prospects for finding a high level and extensive cave. However, it will need very careful work to progress by an experienced team in 2019. This area is still to be surveyed and photographed.



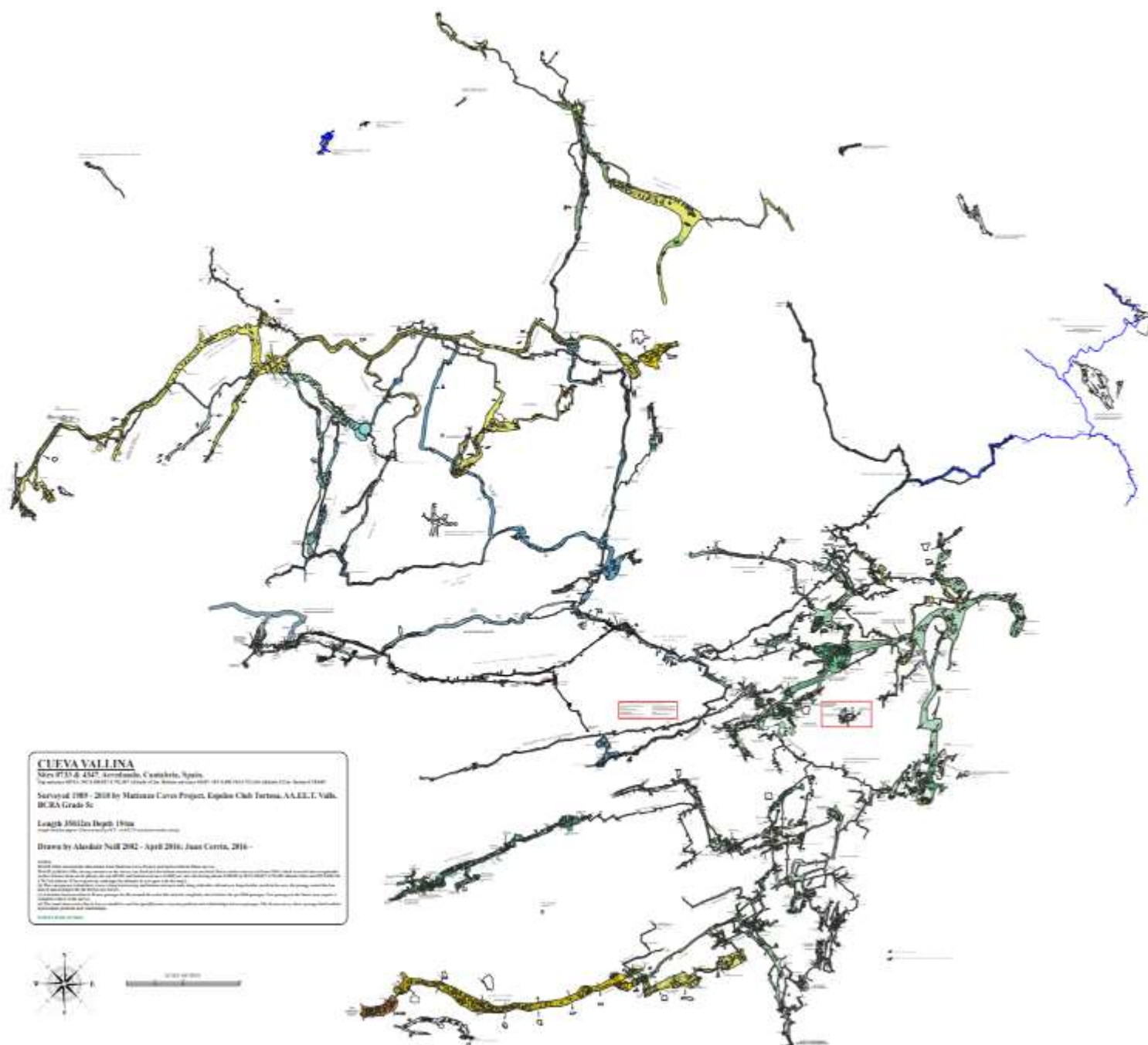
Work was carried out in the Galería de la Cisterna (West off Swirl Chamber) area to push a number of pitches and passages and to complete the survey of this area, 168m of cave was added in this complex area.

A two-man diving team worked in the main upstream Rio Rioja sumps. The main objective was to survey the sump and so link in the Vallina III passages found in 2017 and to push leads and the further sumps. Jim Lister and Mark Smith pushed and surveyed

through sumps 6 to 8 with walking passages between them and then along a streamway to a crystal-clear sump 9, not yet dived. In addition, the almost 400m of sump and unsurveyed passages which were pushed in 2017 from sump 3 to sump 5 were surveyed. In Birdsworld and Zona Blanca a number of loose ends and connections were tidied up and about 50m surveyed and this, together with the diving finds, added



630m to the survey and brings Cueva Vallina to over 35km in length.
The survey showing the new finds is shown below. However due to its scale it is best looked at on-



line at <http://matienzocaves.org.uk/descrip/0733.htm>

South Vega

In South Vega, the wet weather in the spring stopped our Easter resurvey and pushing work in Cueva-Cubío de la Reñada (0048) beyond the “duck”, which was our main interest. In the summer water levels were lower and apart from one trip our main focus of interest was elsewhere where having a strong draught in the hot weather was a priority to locate



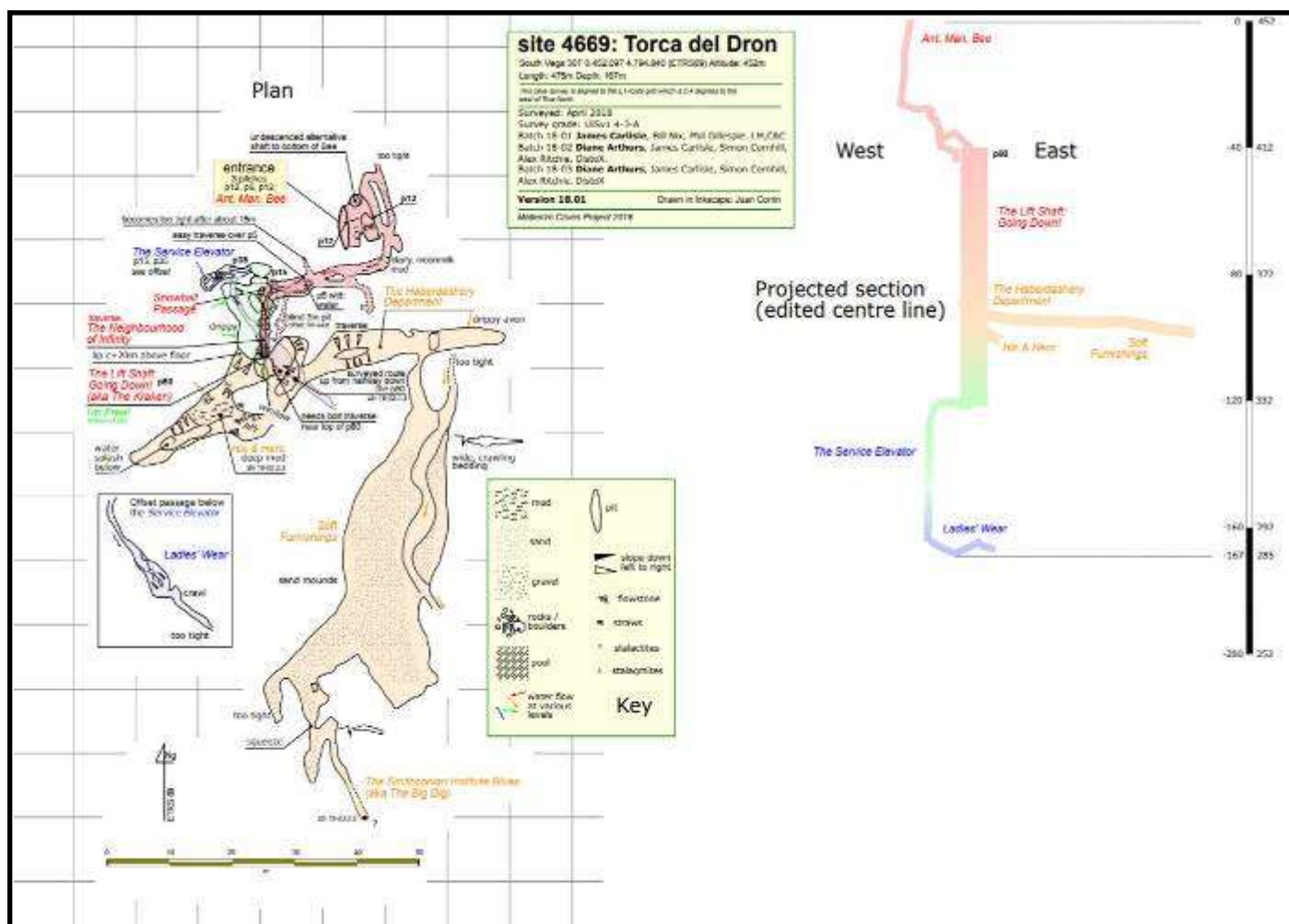
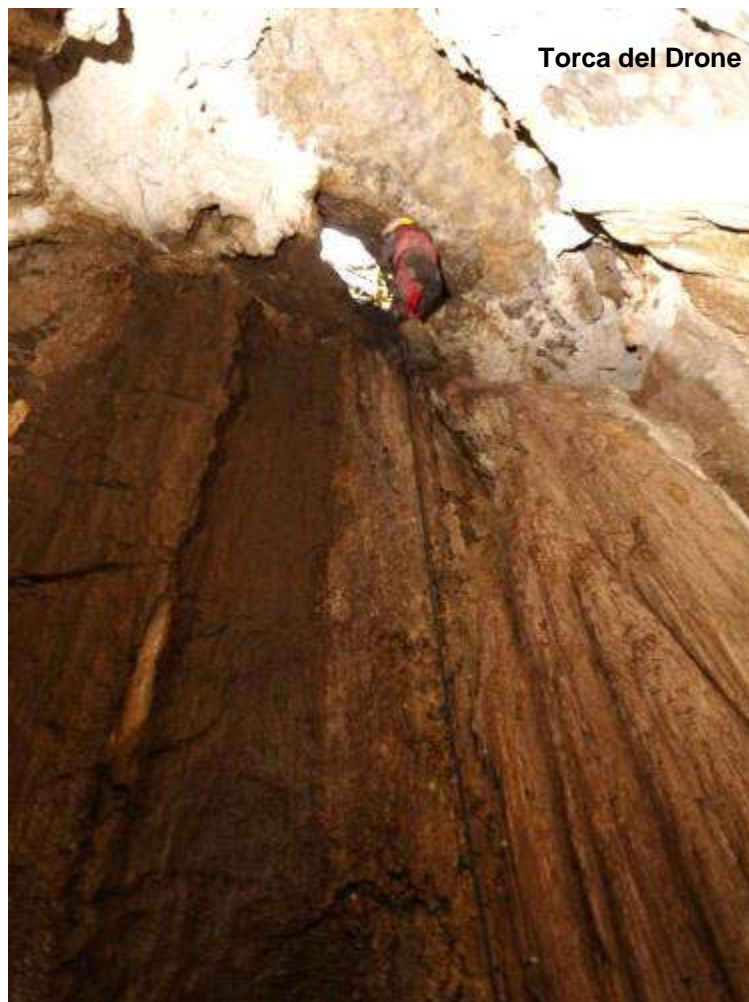
the best prospects.

In the spring a number of new caves were found and pushed. The most significant is Torca del Dron (4669) located just below the TV Mast track and identified, along with other sites, by a drone.

This open surface shaft (now covered with concrete sleepers) leads down pitches to a big 80m shaft with passages going off at the sides. At the bottom of the big pitch, further pitches followed to where leads choked off. Almost half a kilometre was surveyed, and more work is needed to push remaining leads in 2019.

This is an important, 167m deep site situated in a fairly barren area of South Vega where potential for significant new cave exists.

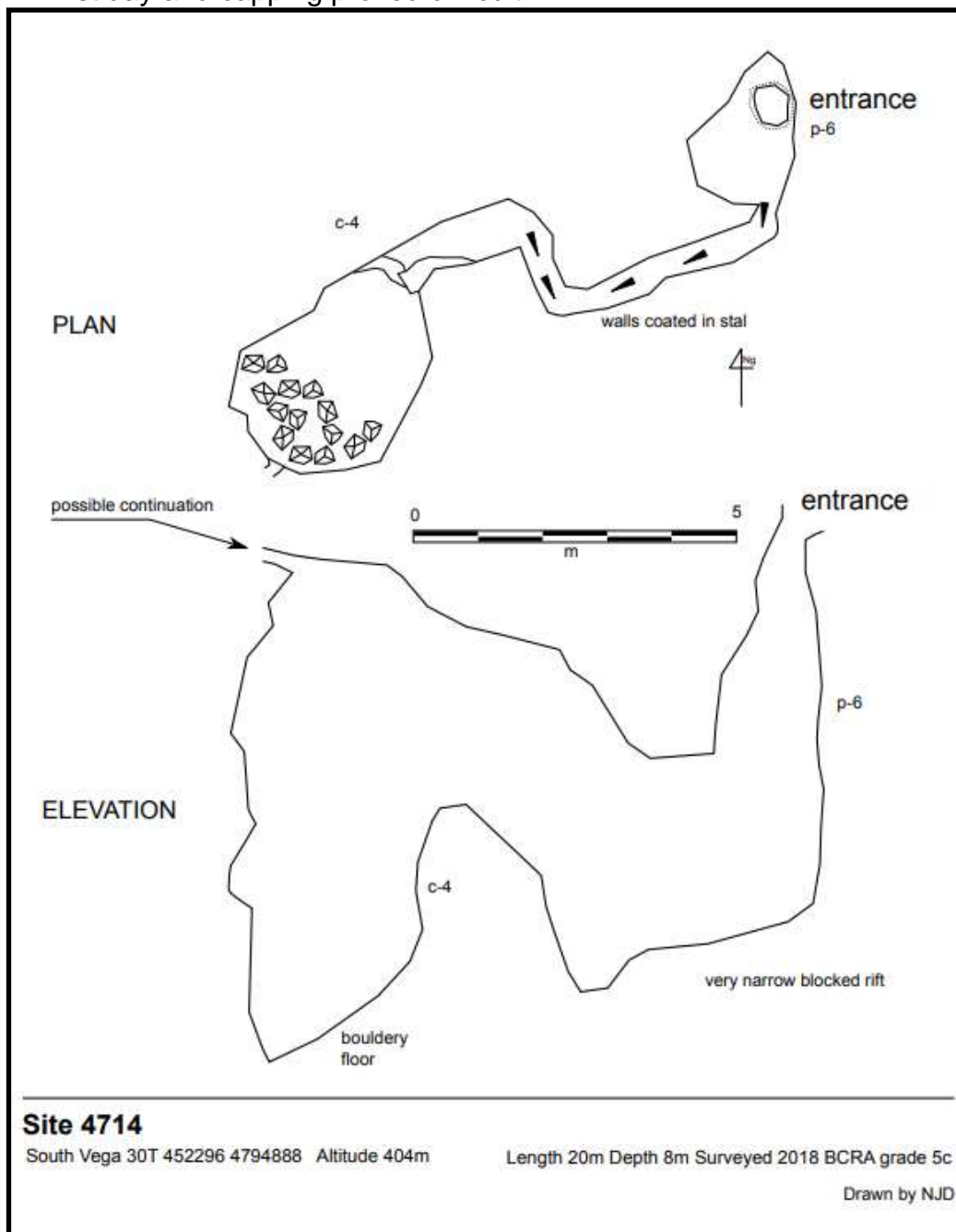
In the area around and to the east of Drone Pot and in South Vega the expedition took on a major exercise to push and check sites and their GPS's. In total 34 new sites were identified and the location and of a number of known sites were checked.



A number will need further investigation:
 site 4714 was pushed down two pitches and surveyed to 22m with a possible passage seen at roof level still needing bolting to gain access in order that the lead can be checked out.

Site 4668 was pushed about 20m to the top of a pitch. A number of these new sites have some promise for digging / pushing,

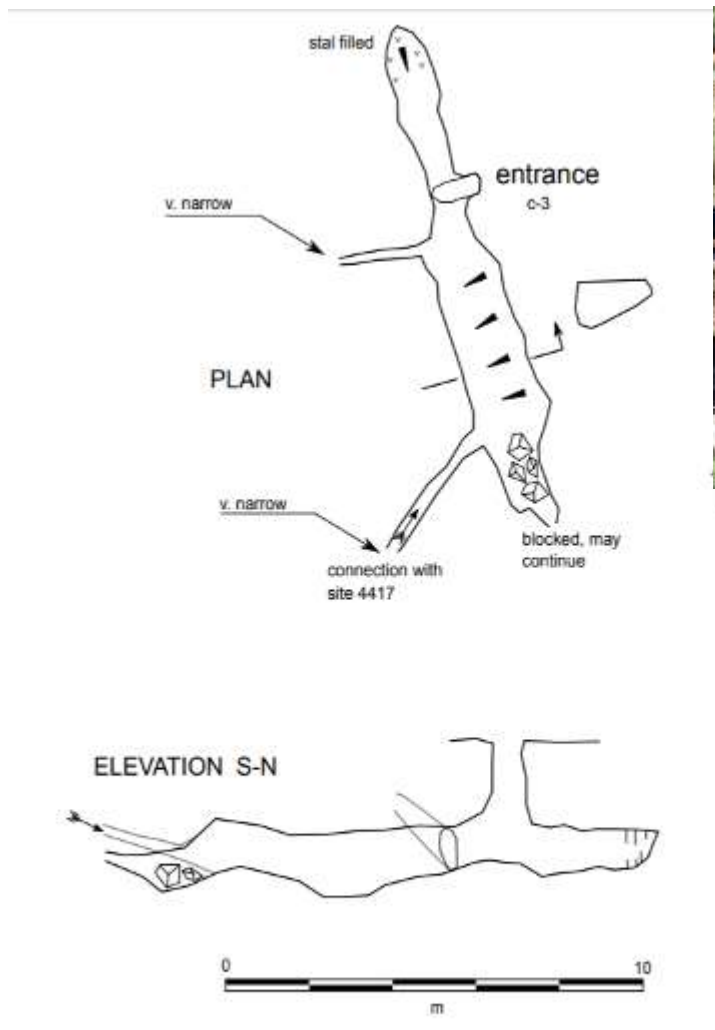
At Broken Chisel Pot (4416) a small draughting hole was opened up over two days. The chisel broke on the first day and capping proved difficult



in the calcite covered walls. Eventually 16m of decorated old cave passage was entered with the draught coming from two narrow fissures going into the hillside.

A voice connection was made with site 4417 from above a possible dig in the floor at the start of the second fissure. eye for a week or so.

The draught makes it worth using an endoscope to see if either of the fissures is worth opening up using caps, which would be a big but realistic exercise.



Site 4416

South Vega 30T 452236 4794982 Altitude 372m

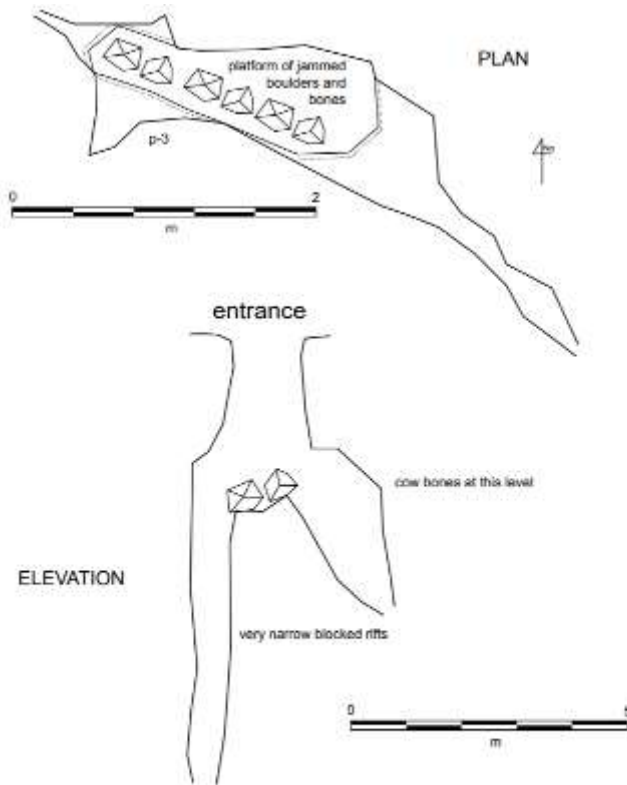
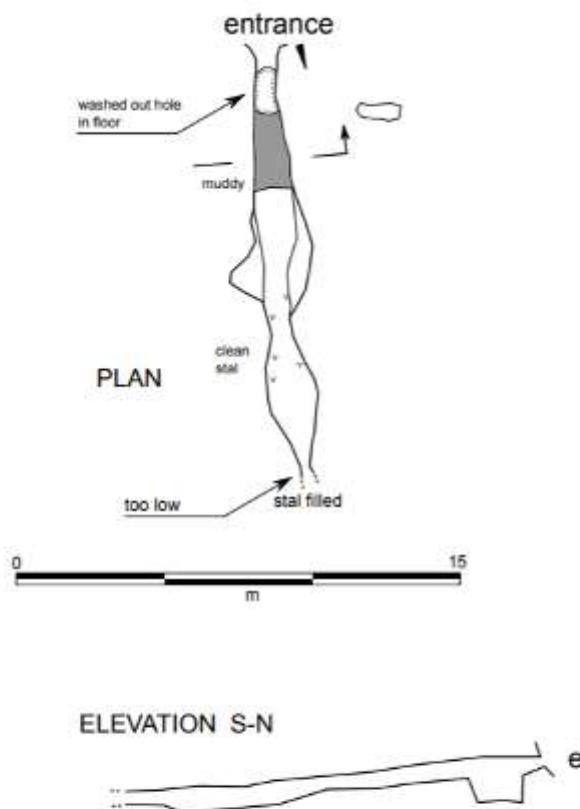
Length 18m Depth 4m Surveyed 2018 BCRA grade 5c

Drawn by NJD

Cueva del Disto (4791) was draughting in on a warm day. It was pushed and surveyed to a small chamber over two days with a dig in loose boulders in the floor. A DistoX was dropped down and can be seen but is not yet recovered!



Sites 4794 and 4795 were pushed and surveyed to 18m and 12m respectively but had no draught and, although they could be dug further, they are poor prospects.



Site 4794 (South Vega)
30T 452262 4794902 Altitude 402m

Length 14m Depth 1.5m



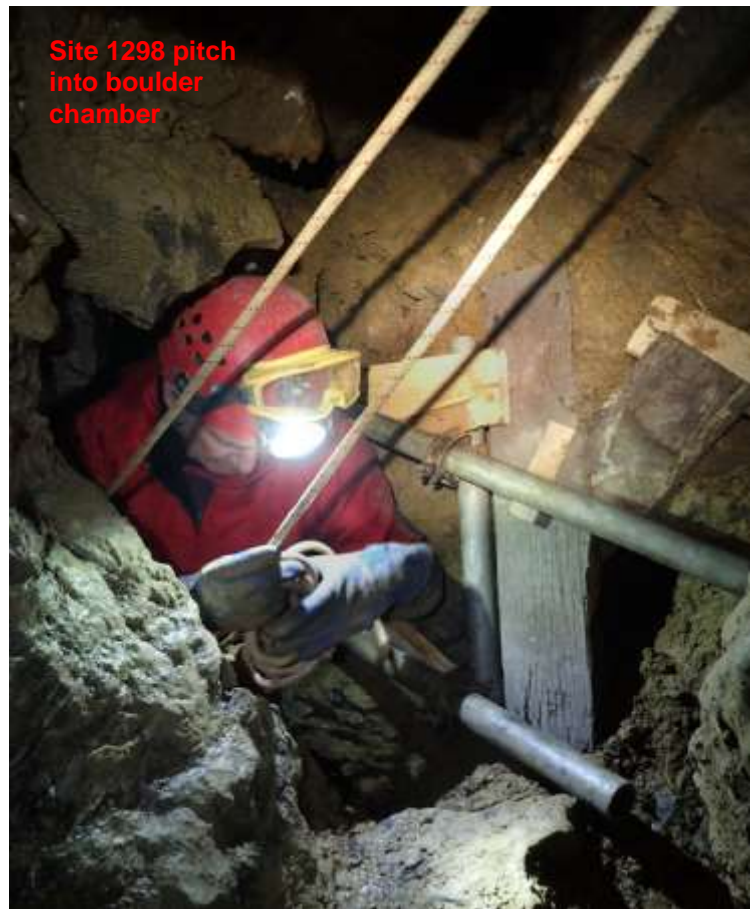
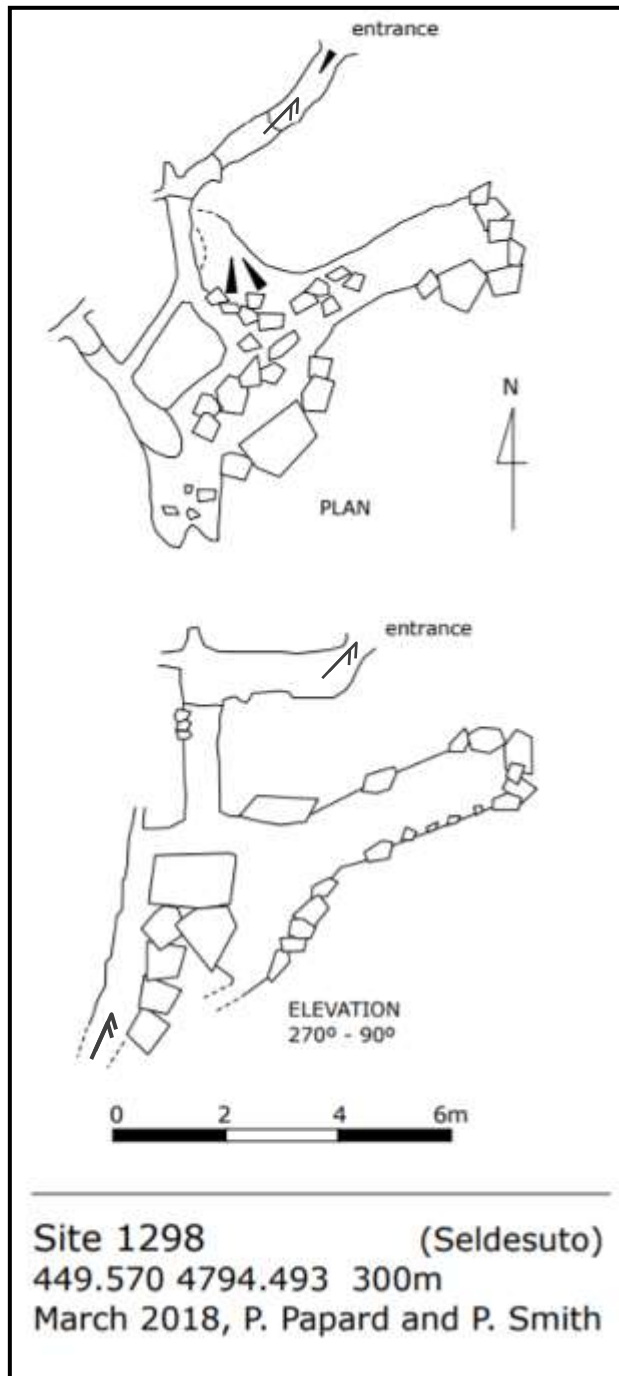
Site 4795
South Vega 30T 452254 4794922 Altitude 397m
Length 12m Depth 8m Surveyed 2018 BCRA grade 5c
Drawn by NJD

Seldesuto,

In Torca de Corcada (0780) more work was undertaken in both the fossil and active routes by removing rock at several corners and a new short pitch was passed so making some progress. Prospects continue to look reasonable and more work will take place in 2019 at this site which is in a key area between the present limit of

the South Vega system / Arenal and Torca del Hoyón (0567).

At Easter work at the key site 1298 which lies some 100m to the west of where Cueva-Cubío de la Reñada currently ends at a fault, continued at the top of a pitch. Loose infill was shored up and the pitch top opened out to allow access down to a boulder chamber where a good draughting day was required to see the best prospect to push at this key location. In the summer the site was examined on a hot day when the draught was very strong (similar to Reñada entrance). In the boulder chamber below the 4m pitch the draught was coming out from two main areas in the



boulder floor where the easiest way to get access was at the lowest point. This was examined with an endoscope and some of the boulders were removed to give better access. However, it is still not clear if there is an open way or easy dig once a few more boulders are removed. More work at this key site is needed. This may happen in November or will be left until Easter 2019.

Alisas Area

At **Alisas** sinks 1969 and 2035, 2036 and 2037, situated just below the top of the La Cavada to Alisas road, were checked out for the best prospect for dye testing. Five litres of OBA was placed in 1969 to emerge at Fuente Aguanaz between 2 and 3 days later following very heavy rain. This is a distance of 7km and a drop in altitude of 566m. This shows the potential for the yet to be explored part of the system. A further test is needed from the west end of the North Vega System where if our survey is correct it looks to be too low to flow to the East and the water here may also go to Fuente Aguanaz.

In the Alisas area some 11 new sites were found and located. Of these, six were descended to between 2 to 6m where they were either choked or too narrow and two shafts (4764 & 4765) remain undescended. The 4 other caves all need digging if any progress is to be made. A number of known sites were checked out, of these. The main interest and finds were at site 2038 and 2052. The shaft 2038 was pushed over three trips down two pitches to where rocks fell a



considerable distance through a hole in a choke. This was opened up to reveal a big, undescended pitch estimated to be 150m deep. At 2052 the shaft was descended for 40m to where it got tight and rocks fell for a considerable further distance. These two sites are just to the west of our current permit area (they were in our previous permit area when first found) and were looked at in liaison with G. E. Pistruellos club who have been passed all the details and have taken up the work of pushing and

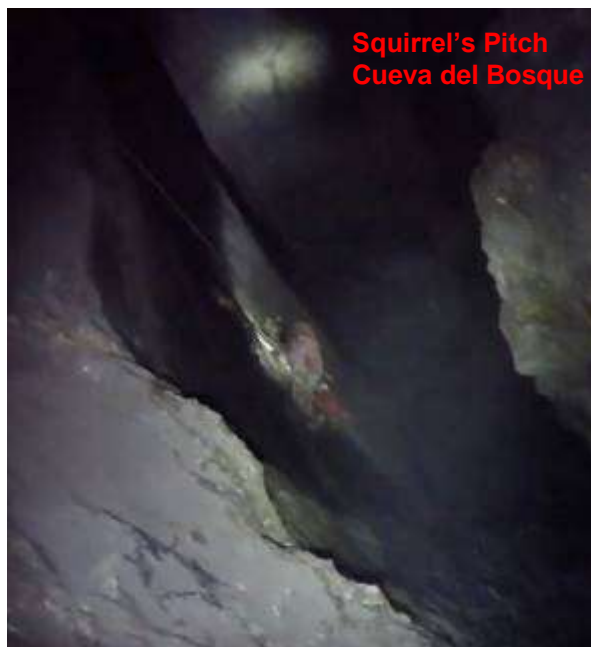
surveying these two sites.

At **Las Calzadillas** eleven new sites were found, of these 4772 was a 25m shaft to a choke. Shaft 4771 remains undescended at about 8m deep and a cave, site 4766 was pushed 6m down a slope to an undescended 7m pitch. The known site 4624 was descended for 13m with no way on.

North Vega

At Christmas work continued pushing and exploration in Cueva del Bosque (site 0373). This had been left in August at a bouldery dig in a 6 x 10m chamber (Slim Pickings). By the end of the Christmas period, the team had had explored and surveyed 640m in a "superb sporting pothole".

To gain access the dig was opened up to provide a p4 into a short passage to a small inlet chamber. Just beyond was Squirrel's Pitch - a magnificent 75m deep, 10m diameter drop. The

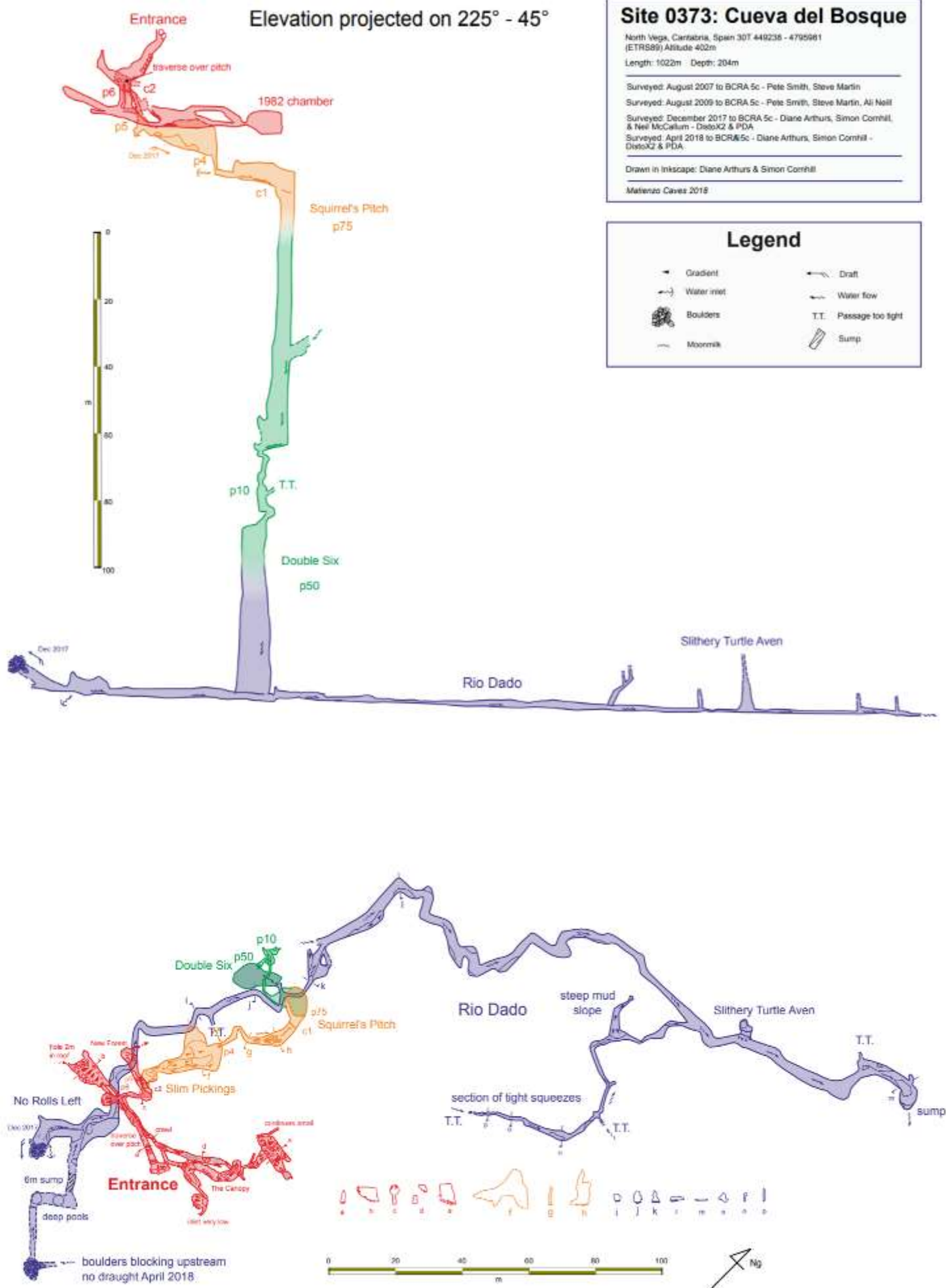


tortuous rift at the base was followed for 15m to a squeeze and the 10m deep Helmet Trapper pitch. A comfortable descending streamway soon ended at a steep rift to the take-off point for the 50m deep Double Six Pitch described as "another stunning descent in a large, beautiful shaft with the stream falling at the far side". The pitch ended at a 15x8m flat boulder floor with the only outlet being a flat-out crawl - Roll Again. This soon met a sizeable streamway - the Río Dado.

Downstream, a tedious hand-and-knees crawl was soon encountered, continuing for about 200m to a beautiful aven coated in slippery white calcite and moonmilk - Slithery Turtle Aven. Beyond, the crawl continued for 60m to a sump.

At Easter the upstream sump was dived by Simon Cornhill and found to be 6m long to a passage ending in a small chamber needing work to make any progress. An inlet was surveyed in the downstream section and 116m added to the survey. The water from this cave looks to enter the North Vega system, some 100m away but has yet to be tested or the inlet in the NVS examined to see if it can be pushed further.





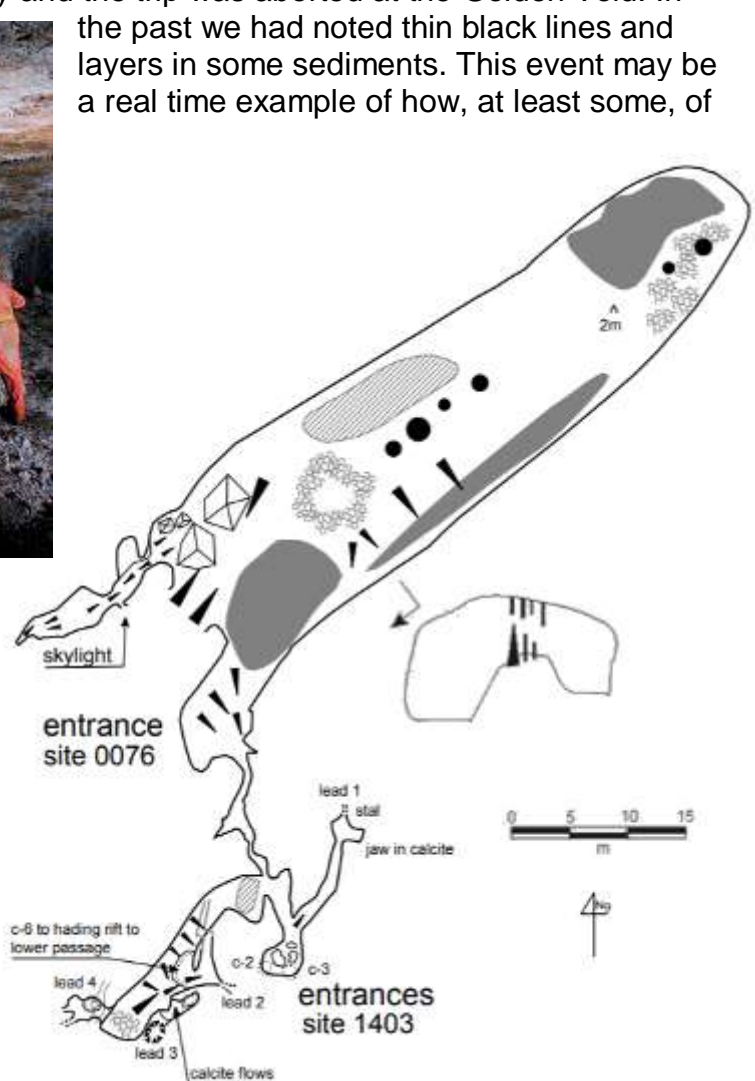
As in South Vega some work was done checking old sites prior to when GPS was available and now accurate locations are available from our website. Two new sites were found (4716 & 4717) that need a little work to open up tight sections and see if they have any prospects.

In **Cubija**, possible leads below the Golden Void in Torca del Mostajo (0071) were checked out for an easier link to the Manchester Series. The belay “spit” was replaced at the Golden Void and errors in the survey noted corrected. On the last trip at Easter. it was found that a surface bush fire had swept through the area burning the entrance rope which had to be replaced before the party could descend. The cave was found to be very smoky and the trip was aborted at the Golden Void. In



these features are formed. In the summer this checking and re-surveying of a possible route to the Manchester Series continued. This area is now better understood and needs to be pushed in 2019 to see if a connection is possible and so by-pass the tight and very awkward route into this area.

The Cueva del Campo (Portón) (0076) to cave 1403 was visited to survey the connection and to check entrance GPS accuracy. In completing the survey 30m was added to its length including entering 15m of new passage near the entrance leading to a daylight window.

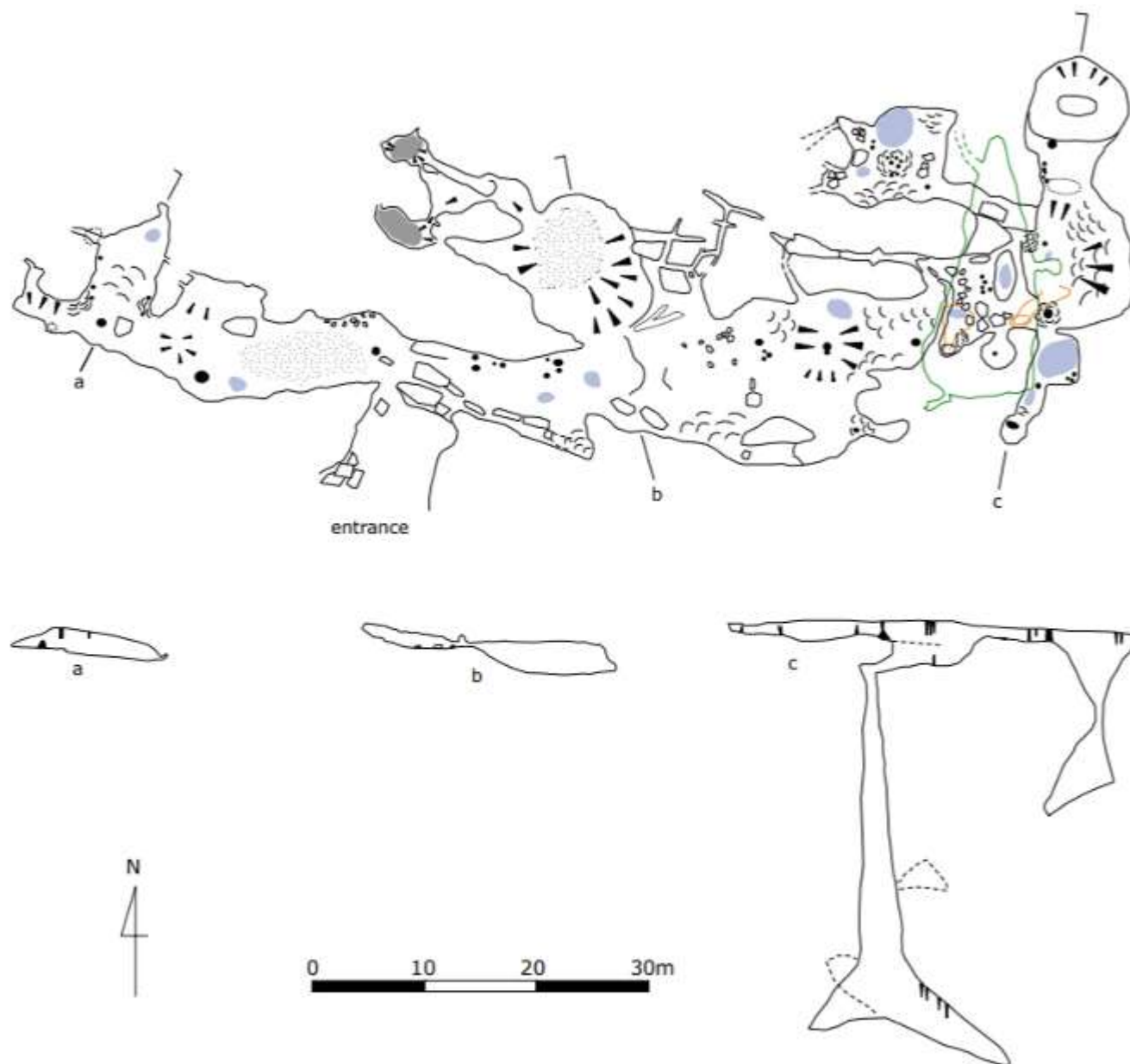


Site 0076 (Cueva del Campo / Cueva del Portón) and site 1403 PLAN
 Site 0076: Cubija 30T 450535 4796290 Altitude 235m Resurveyed 1999, addition 2018 BCRA grade 5c
 Site 1403: Cubija 30T 450543 4796261 Altitude 232m Resurveyed 1999, addition 2018 BCRA grade 5c
 Combined length 190m (incl 30m unsurveyed (2007) in 1403) System depth 30m (see 1403 description)

Redrawn by NJD

Other sites in the area were checked for correct GPS locations etc.

On **El Naso**, Cueva de Coberruyo (0138) was resurveyed over a number of trips, extending the length by about 50m to 200m.



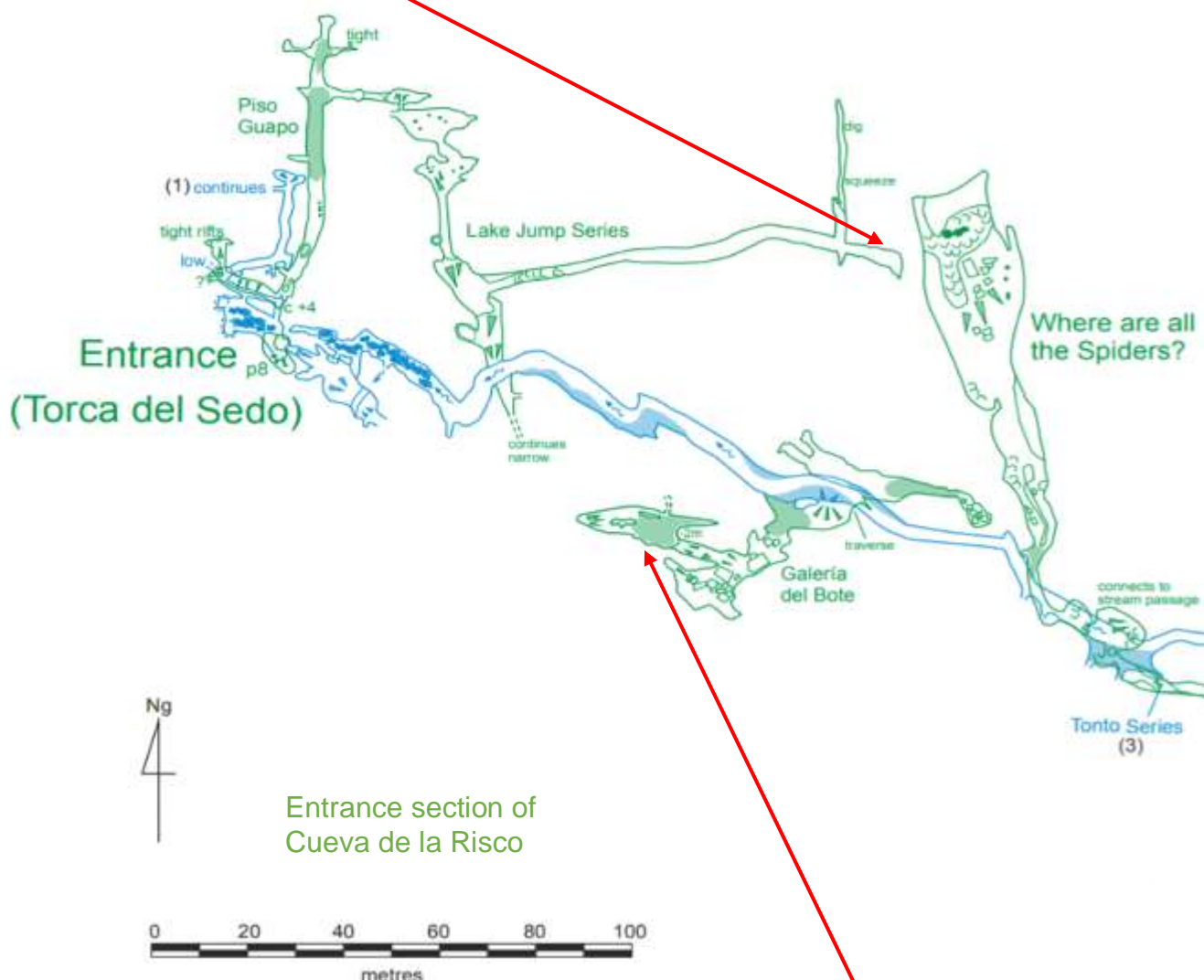
Site 0138 Cueva Coberruyo (La Vega-El Nanso)
451.394 4.796.223 Altitude 320m Length ~210m
Surveyed Jan.-Aug. 2018: P. Smith, Carmen Smith and Patrick Warren
33m pitch, surveyed by B.P.C., August 1986

A 7m pitch on the left side in Cueva de Rascavieja (0077) was dropped to an oxbow back to the main passage at a higher level. Elsewhere three new sites were located for possible future work and a number of known sites were checked out including for better GPS locations.

On **El Naso** in Cueva de Coberruyo (0138) the lowest point to the north of the entrance chamber was dug into, revealing a further small, black-floored chamber, but with no way on. Also, low on El Naso, and next to the road west of Cueva Molino an open draughting cave - [site 4784](#) - was found

at the back of a “garden”. It goes in a few metres to a junction that needs digging but shows how an obvious site can be missed!

At **El Sedo** the entomology project set traps and collected specimens in Sima-Cueva de al Risco (0025). In this cave the passage that goes towards and ends below Where Are All The Spiders was checked out and the choke confirmed as being completely blocked by pure white flowstone. A dig to the east of this point was opened up to where it gets too



tight and was surveyed. Also surveyed was, a passage and chamber off Bote and a pitch dropped at the end of Tali Series (marked p6 on survey) to where it needs pushing by a small person in a wet suit.

The Northeast Sector and The Four Valleys System

La Secada Area

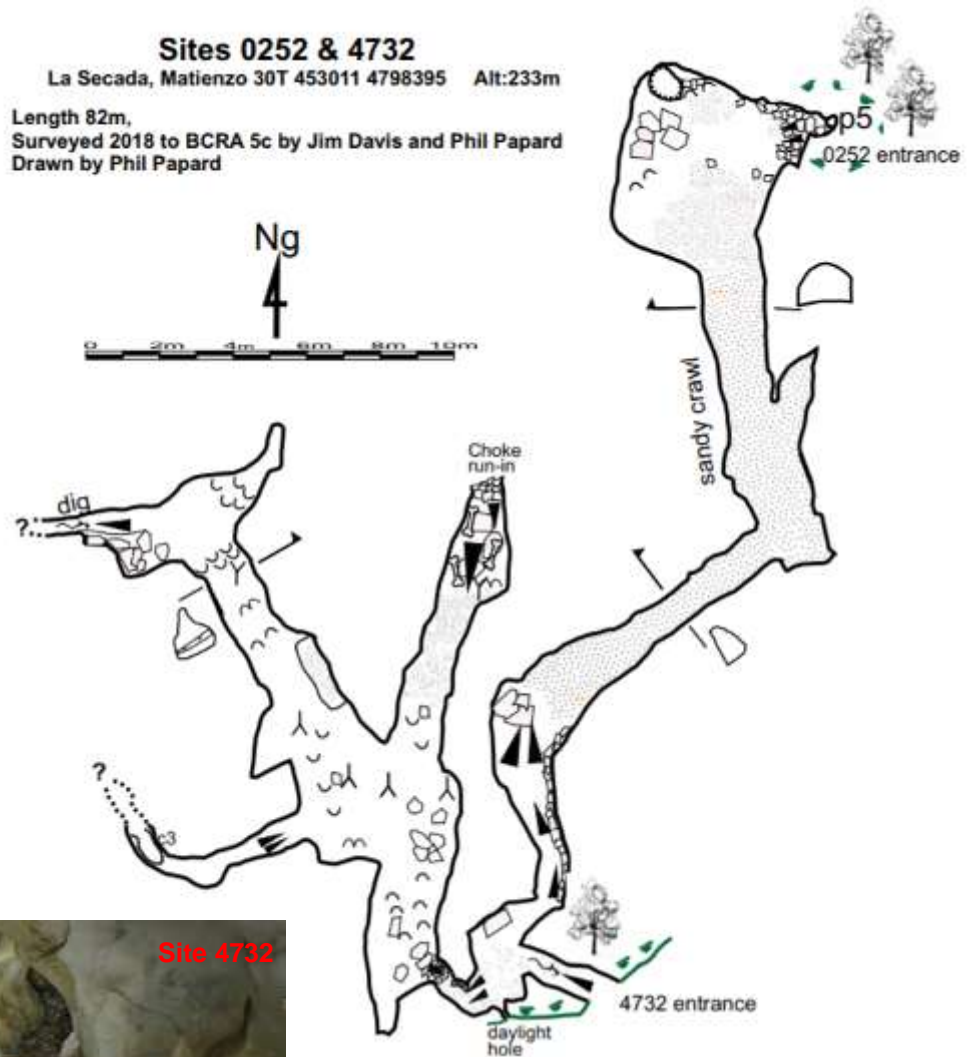
In Cueva de Carcavuezo (0081) at Easter a small team came out with the major aim to pass the sump found last year that connects with Rocky Horror and the way up to the upper levels (Trident). It was found that direct access to the Boy's Entrance route into the cave was flooded, meaning access had to be via the Western Series. There was also standing water in the Afternoon Stroll. This flooding resulted in having to abandon the planned pushing trip to Trident. The time was spent on the resurvey work with 292m surveyed of which 60m was new. It is hoped that water levels will be lower on the next trip in 2019.

Cueva de los Tres Niños (0565) was visited and a rift in the entrance area was pushed, adding 63m.

In the NE area of La Secada a number of sites were dug and pushed. Near The Bar Pot (603) was opened up to make access easier with a tight section and fallen rocks removed. This draughting site is now ready for a more concerted digging effort.

Site 0252 was dug along a sandy crawl and up to where daylight came in via a very small hole. Ron Taylor's SubPhones were used to locate this site on the surface

Sites 0252 & 4732
La Secada, Matienzo 30T 453011 4798395 Alt:233m
Length 82m,
Surveyed 2018 to BCRA 5c by Jim Davis and Phil Papard
Drawn by Phil Papard



and a second entrance was then dug (4732) to allow easier digging of a draughting crawl. This was excavated into a short section of walking passage to a tight sloping passage at the end. This draughting passage was dug although progress was made a more serious dig is needed in 2019 at this promising site with a good draught. The cave was surveyed to 82m.



At Two and a Half Fat Ladies (0880) digging continued and after some 3m the wall turned under to form a roof and then started to go up into what we assume to be a second enlarged area with some open space along the wall and with a different type of run-in to the rest of the cave. Given its location and the

Dig at site 880 (Two and a Half Fat Ladies)



Entrance slope at site 880 (Two and a Half Fat Ladies)

passage size, this is a key dig site and work will continue at Easter 2019.

Next to the track in the wood on the way to 4732 a small draughting hole (4805) was noted that had not been seen at Easter. This was dug and after about 1m reached a boulder-blocked rift in bedrock with the draught increasing as we opened up holes. Removing some boulders opened up the rift and, after shoring up the top loose area, it was possible to descend some 3m

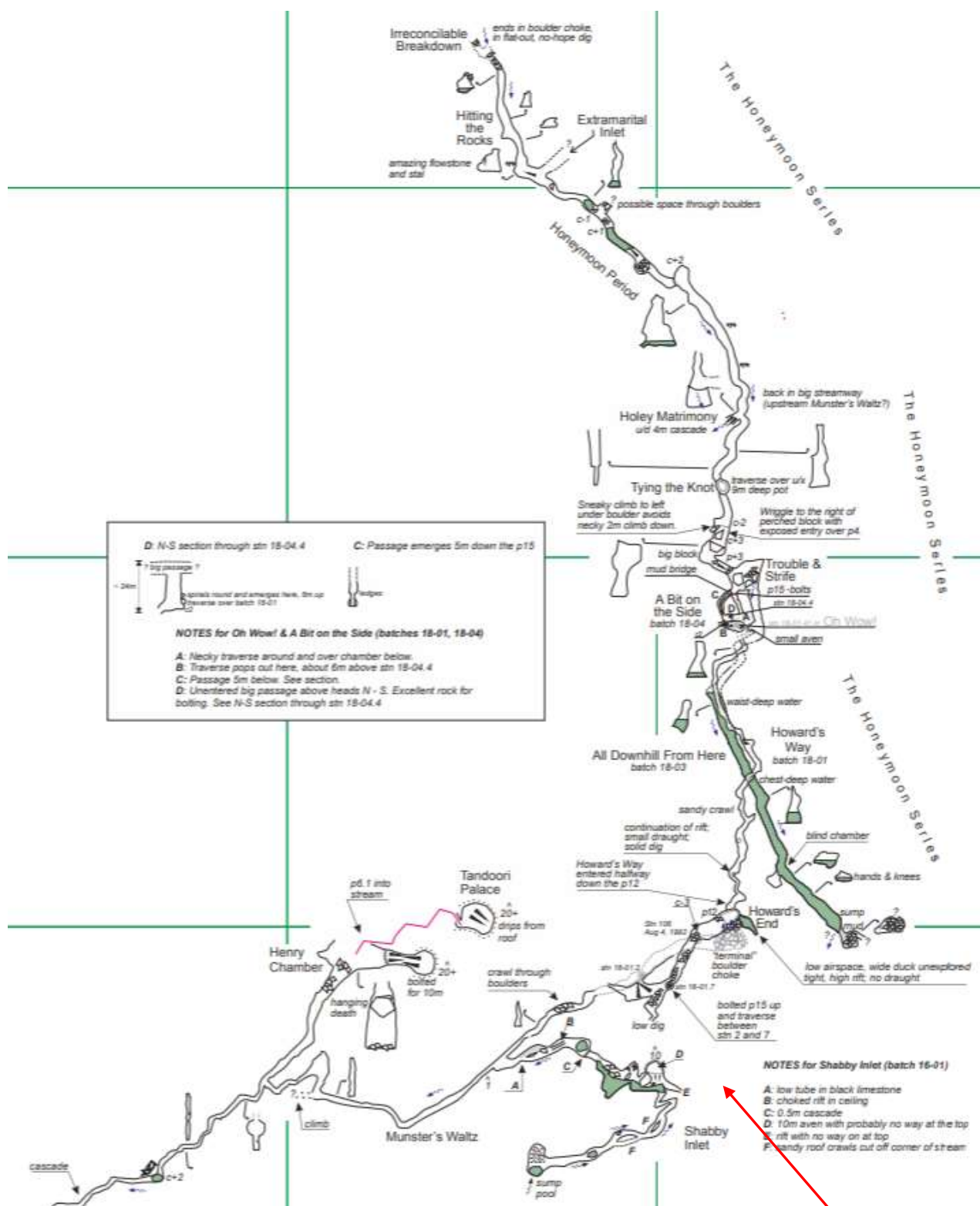
to where it will be easy digging. This site looks like being important given its location and very strong draught.

Elsewhere in La Secada a number of other sites were visited, and two new sites were recorded. Some of the sites were checked out using an endoscope to help estimate digging prospects and so target our efforts. Most were found to be poor prospects. The sites mentioned above together with the draughting dig Socks (1017) and Site 1017 are worth more work.

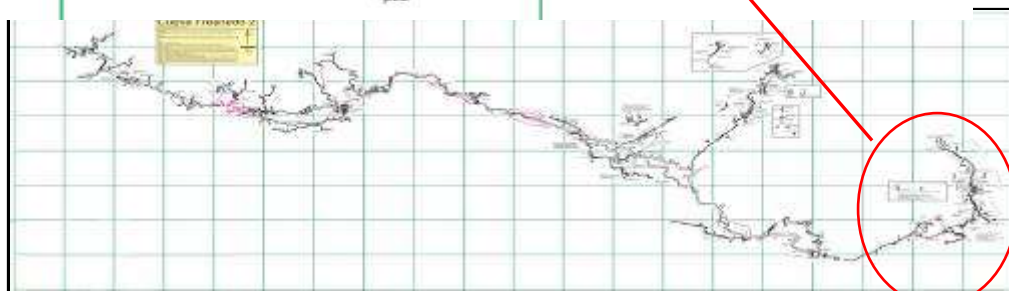


Fresnedo Area

Five trips went to the far end area of Cueva Fresnedo II (0841) and one trip was made pushing and surveying a passage to the west about 100m from the cave entrance. At the far end, leads in



the That's All Folks area did not result in any significant new cave. However, the climb near the terminal boulder choke reached two



passages that were pushed to a 15m pitch past the terminal choke into 100m of streamway ending in a clear sump and tight rift. Five metres down the 15m pitch a draughting passage was noted that needs bolting to enter. At the bottom of the pitch a small lead was pushed over a traverse and into a large streamway about 12m high. A large choke was met after 200m of upstream progress. The choke, draughting side passages and the downstream section have not been yet been looked at in any detail. In total, over 600m of new passages were surveyed with open passages left for pushing in 2019.

Prospecting Above Fresnedo II, only re-located Cueva Mortiro, site 0236 that previously had a wrong grid reference. Above the middle section of the cave a sink (4788) was located but not dug or pushed.

An old dig (2522) that lies above the end of the Rampant Rabbit area of Cueva del Torno (2366), was excavated over a number of days. The draught strengthened as holes were opened up and the site was left some 4m deep to open holes. It seems very likely that one or two more days digging in 2019 it will connect to Cueva del Torno. While checking other sites it was noted that Pignut Cave (2523) has been blocked with rocks.



Riaño Area

In Cueva-Cubío del Llanío (3234), was pushed hard but the connection with Cueva de Riaño is still to be found. A number of leads were inspected, the highlights being B Chamber and 100m of very well decorated passage above it. One passage ends at an easy dig in a bedding approaching, at the same altitude, a possible dig in Shrewd Find (site



4188). In total 862m of passage was surveyed including 100m of passage scampered in the summer but not surveyed and a further

262m of cave was surveyed including Napoleon Passage. One lead found was a 25m pitch this



was not pushed due to the water cascading in. However, in dryer spell it was found to be choked. At the same time in Cueva de Riaño (0105) the area closest to Cueva del Llanío was checked but no link or voice connection was found, on the trip 121m of new passage surveyed. The leads near B Chamber and New Hope only linked back to known passages. The

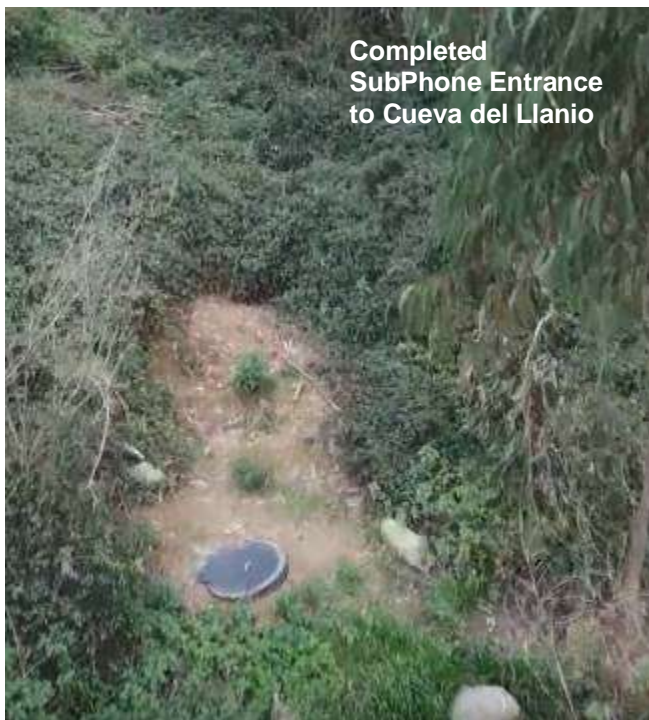


The map illustrates the Crystal Mine system, a complex network of underground passages and chambers. Key features include:

- Chamber of Ooze Monsters:** Located at the top left, featuring a large, dark, and ominous chamber.
- Monster Ramp:** A steep, rocky incline leading up to a cluster of small, dark chambers.
- The Ski Slope:** A large, green, irregularly shaped area with a complex network of small, dark chambers.
- The Mine Not The First (WWNTP):** A large, orange, irregularly shaped area with a complex network of small, dark chambers.
- South Passage:** A long, narrow, orange passage running vertically through the center of the map.
- Crystal Mine:** A large, orange, irregularly shaped area at the bottom left, featuring a complex network of small, dark chambers.
- S Chamber:** A small, dark chamber located near the bottom center of the map.
- New Hope:** A small, dark chamber located near the bottom right of the map.

The map also includes a small inset map in the top left corner, showing the mine's location in the context of the surrounding landscape.

both systems in 2019 with Ron Taylor's SubPhones, so that they can talk to each other and locate the distance and position to the other party. The part of the cave extended is shown over the page, together with a small section of a map showing the whole cave with the purple lines being passage below in Cueva de Riaño. The SubPhone Entrance work was completed late in 2017 in time for pushing trips early in 2018.



Completed
SubPhone Entrance
to Cueva del Llanio

In both Llano and Riaño caves the entomology project set traps and took photographs.



Llanío was also investigated as a possible site for student (masters) research into nitrate inclusion in stal as a record of historical agricultural methods.

We had expected to be able to push the new passages found in 2017 in Fridge Door Cave ([1800](#)) during the summer when water levels would allow access. However, the weather prior to the summer expedition had flooded the cave below the entrance and this did not drop sufficiently by the middle of August. The entrance and a small section at the bottom of the entrance was opened up to allow easier access with diving gear, a possible project for 2019 would be to dig out the choke between 1800 and Cueva Espada (0103) which should also reduce the time it takes for the water to drop.

A 800mm tube has been fitted through the boulder wall in the Giant Panda entrance ([2691](#)) to Cueva Hoyuca (0107) to allow careful access, and stainless steel bolts have been placed for the safety line. More work is needed in 2019 to improve access and replace the shoring at the entrance with a more permanent structure.



The small stream inlet in La Fuente de Escobar (site 0383) was worked on over Christmas and Easter. The excavations were carried out lying in cold, fast flowing water removing calcite dams when water levels allowed. Entry was gained into 234m of new stream way making the total cave 276m long. The passage split up at the end into smaller sections thus giving little prospect of further accessible cave passage. The survey is currently being drawn up and will appear on our web site at <http://matienzocaves.org.uk/descrip/0383.htm>



Elsewhere in the Riaño area, two new sites were found, Torca de Edraith (4712) was pushed to a depth of 15m and surveyed to 19m. A parallel shaft at the end has a good draught and needs work (capping) to gain entry.



Extra Special Pot (4713) was pushed and



surveyed for 63m to a tight rift blocked by calcite and needs work to progress, the survey is currently being drawn up.

TORCA DE EDRAITH

Site No. 4712
Matienzo Caves Project
30T 0.451.970 4.800.094
Altitude 170m (datum FTR58g)
Nm declination when surveyed: 0.8° West
Ng (0.4° W) is shown as map North

Discovered: 2018-04-03
Surveyed with Disto X2
on 2018-04-06 by:
Paul Fretwell
Alistair Smith
Amata Hinkie
With assistance from Tony Radmall
and Tom Thomson
Cartographer: Amata Hinkie

Site Description:
Small hole directly adjacent to the track leading up from Riaño on the uphill side, with a squeeze point near the top of the 15 meter drop. Requires a 30m rope to easily rig a tree on the opposite side of the track. Air/draft is felt, with digging it may connect with the Four Valleys System. The limestone is middle Cretaceous (lower Cenomanian - 95-100Ma).

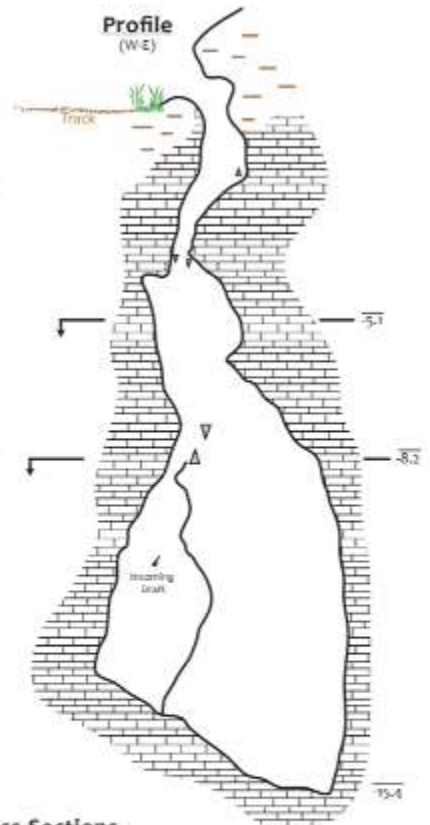
Depth: 15.4m
Length: 19.3m
Scale in Vectors: All sections to scale

Plan View

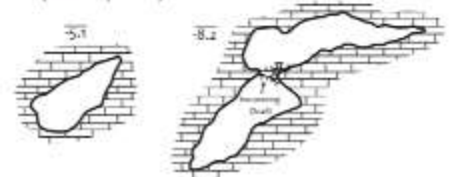
(see cross-sections for details at specific depths)



Profile (W-E)



Cross-Sections (labeled by datum)



North Sector, Solórzano and the Riolastras Area

Solórzano Area

Cueva de Lolo (3991) was a diving objective and gear was taken to the sump passed in 2017. As expected the water level was higher than in the dry spell in 2017 but this was not thought to be a problem. On the following day, Jim Lister and Colin Haywood tried to dive the sump, but found that the winter weather had brought shingle into the sump, blocking access. Digging out the "sump" in dry weather is now required in 2019.

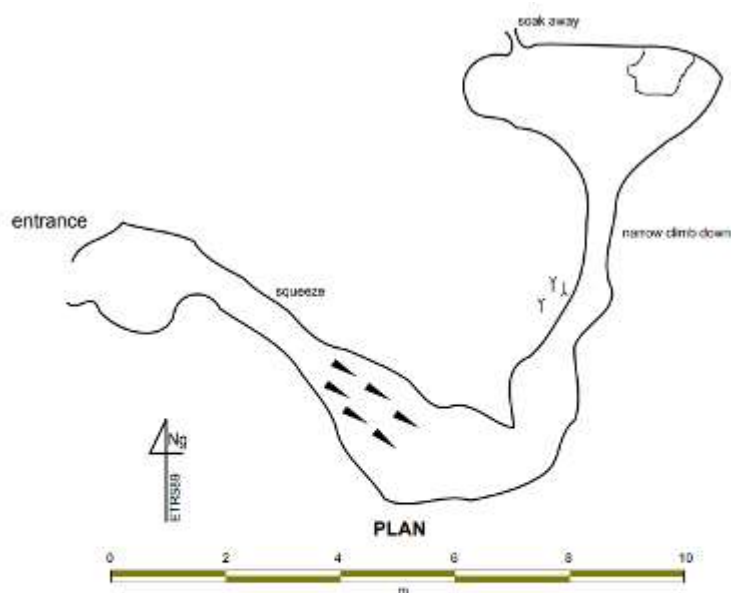
At Garzón, optical brightener was injected into sink 4658 (close to dig 4052) and positively detected at the resurgence (3282) for the río Santa Juliana in the San Antonio valley, which is also the confirmed (by OBA tests) as the resurgence for sites 3010 and 3566 - see hydrology page with map on page 4. There is a 1.3km straight line distance between the sink and the resurgence with a depth potential of about 90m. Shaft 4652 was documented as a 6m deep shaft with car tyres needing removal before the site can be explored.



At **Riolastras**, cave 4184 was surveyed and a new shaft (4781) was found but not explored or dug.

In the **La Gatuna** area Cueva de Collada (0394), via the Eastwater Entrance (4537) was targeted with the object of looking for leads in the effort to push towards Friday the 13th Passage in the far SE of Torca la Vaca (2889). A new passage near the bottom was pushed but lack of time meant it is still to be surveyed.

In the area and also to the east four new sites were located and a number of known sites pushed. All were choked with poor prospects; two new sites are yet to be examined in any detail.



site 4184: shaft

Riolastras ETR509: 50T 455147 4802085 Altitude: 1300m
 Length: 19m Depth: 8m
 Surveyed: August 2018, Compass & Chino
 John Clarke & Harry Long
 Survey grade: ULSv1 4-2-A
 Drawn in Inkscape: Juan Comin
 Malenco Caves Project 2018

Hoznayo/San Antonio area

In the **Hornedo** area, a visit into Torca la Vaca (2889) via BigMat Calf Hole (3916) in order to examine gypsum deposits in Ed's Birthday Passage was made with a French team of geologists, including one undertaking a post doctorate project on dolomite and gypsum formation. The French team were very interested in the area and thought it was an excellent study site. While on the trip an unsurveyed passage off of Red Carrot Passage was found to link back into the known cave, but still needs to be surveyed. On another trip 87m of new passage was surveyed in the Lechuguilla Passage area, with some digs and leads left to be looked at. As part of the entomology project traps were set and specimens collected in the north section of the cave.

The planned push in Cave of the Wild Mare (0767) of side passages in order to try and connect it to Torca de Pena Encaramada (3380) was hampered by the high water levels.

Elsewhere in the area a number of known sites were examined and pushed a few metres, and shaft 4654 was pushed and linked to a dig 4655 with no way on or digging prospect found. No significant finds were made. Three new sites were located with some prospects, including a significant sink (4758).



A major diving and pushing project in Fuente Aguanaz (0713) was hampered at Easter by the wet weather, and on one occasion the water flooded the top entrance area submerging stored diving gear. However, four diving trips were made at Easter, plus one to retrieve the submerged diving gear. Jim Lister and Mark Smith dived the sump at the end of Sarah

Jean Passage and broke through the choke but found no easy route on was found. A way under was pushed to a further sump that was polluted with what appeared to be wood pulp. On a second trip the same team checked the final sump at the end of the main passage and got to a low airspace in the tight passage with the sound of running water beyond, in the summer rocks were capped and some 9m of progress made but high water levels made this work difficult. More capping is needed, preferably with lower water levels in



Fuente Aguanaz
Sarah Jean Inlet

2019, water levels permitting. When water levels dropped, Jim Lister on two solo trips reached sump 5b in Sarah Jean Passage where visibility was zero and third margins meant it was not passed. Dry

passages off the route to the sump were examined including one large passage walked for 10mins to where it reached a very high aven.

On later trips the passage to the sump and the dry passage and aven were surveyed. In the Summer the sump at the end of Sarah Jean Passage was found with high water levels and nil visibility, but on a later trip it was passed to find two passages going off above the next sump pool. One leads to a 15m wide aven at least 60m high with a draught coming in down the aven. The second

passage, some 2m wide by 3m high, takes the draught but has not yet been explored.

The far upstream end choke after the low duck in Fuente Aguanaz (0713) was capped and some 9m of progress made. More capping is needed in 2019, preferably with lower water levels.

A 90m long inlet on the east past sump 2 was found in the summer this was pushed to a passage leading to a chamber (Rudolf Chamber) where Mark Smith slipped on a climb and landed on his nose causing him and Jim Lister to exit the cave but leaving some of Mark's blood behind. A return solo trip was made a few days later to survey the 81m of the passage and chamber but was not been pushed further.

More than 400m were surveyed in Fuente Aguanaz despite the problems due to high water levels and more importantly there are a several open leads left for 2019.



Fuente Aguanaz
Sarah Jean Inlet

Site 713: Fuente Aguanaz

San Antonio 30T 446482 4801430 Alt: 78m

Length 3600m,

Surveyed 1988-2018 to BCRA 5c by Matienzo Caves Project

Drawn by Phil Papard



Sarah Jean Inlet
extensions 2018

Galería
Vampire
area

Some time was spent looking at possible sites that could give access to the further reaches of Fuente Aguanaz or beyond the present system. Twenty-nine new sites and water sinks were located with varied prospects. In most cases the sites have not been worked on to any extent however most look likely to need a lot of work to make significant progress.

One of the new found shafts [4699](#), above and a little to the north of Sarah Jean Passage, was worked on over four trips at Easter getting down a 9m pitch to a further drop of 5m. This site was pushed over a number of trips in the summer, using caps to open up the top of pitches 4 and 5 to reach a 5x3m chamber with two very low drain outlets that have not been dug. A crawl above pitch 3, emitting a strong draught, was pushed until it got too tight. Thus, this site does not seem to be an easy way into the back of Fuente Aguanaz. The survey of this site is not yet complete.

A number of other sites were visited all require a lot more work to make any progress, of these: a rift (4569) is 10m long ending in a choke that could be dug and site 3027 was dug and pushed to 12m with more work needed.



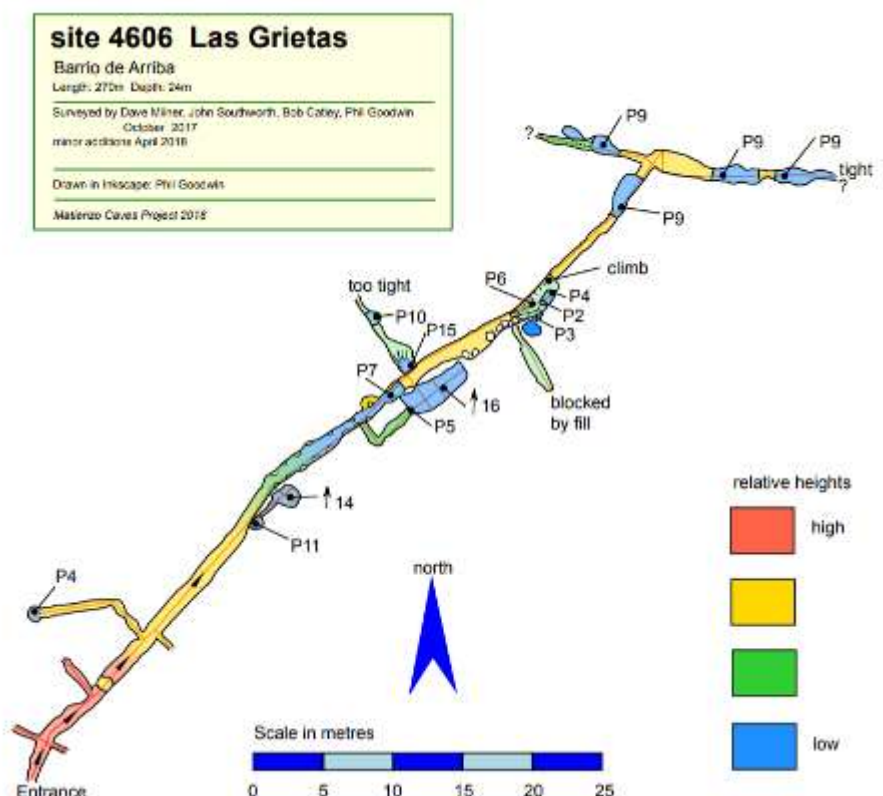
At **Cobadal**, rock was removed at the Shanty Town Dig (2090) over two days to allow digging in the floor and local children joined in the digging effort! It was not clear which is the best option for digging as the draught was poor in the cool weather. The site needs checking in hot conditions to check where is the best place to dig. Also in the area site 4592 was enlarged, allowing access to a tight vertical squeeze, a boulder floor and the route blocked by a large slab.

Riotuerto (working with and in agreement with the Spanish club G. E. Pistruellos)

Barrio de Arriba Area

The walk in rift cave 4606, found in 2017 was extended by a traverse over, a pitch that was 10m deep to a passage that was too tight both up and down stream. Capping of a tight section at the traverse level led to a small chamber with a bigger chamber seen through crack. This was capped open but no way on found in this further chamber. The survey was completed, and the system was de-rigged.

In this area four new sites were found: a cave 4759 was a walked down a 6m boulder slope to a choke which was dug but more work is needed; two choked shafts and a twin drop



under a small cliff that needs enlarging to gain entry.

At **Moncobe**, [shaft 4474](#) was pushed and surveyed after capping out the top of the entrance and some further pitches, to reach a 10-15m high gallery with holes in the floor (not yet descended). At the end, the possible way on will need a “mining” type approach. This 198m cave / shaft draughts well and so has some potential. The survey is in the process of being drawn up.

