

# Answers

Who said of ...?

- ① Olly, of an infeasibly large pan of Mornflakes
- ② To, of an enthusiastic billy goat en route to Top Camp
- ③ " , to Martin, of ~~sa~~ a bag of unripe pears

(B2) What	we	did	on	ow	holidays
Date 11/7	Where Torca del	Who Alex	Left At 15:00	ETB 21:00	Call Out 22:00 ✓
Out ✓	Vasco	Michael			
12/7	Torca de Vasco	Michael Pauline Andy	12:00	<del>18:00</del>	20:00 ✓ OUT
12/7	ER2	Alex Nobby	13:00	17:00	20:00 ✓ OUT
12/7	Torca del Vasco	Tim Jason Anita	17:30	1AM.	0600 out ✓
13/7	Torca del Vasco	Alex Olly	11:00	21:00	23:00 ✓
13/7	Short Bashing on other side of Veje Aliseda	<del>Michael</del> Anita	11:30	16:00	✓
C4 13 July	Pauline Andy	Pauline Andy	4:15	9 pm	midnight ✓
echo - locating (C4 then Gustafsen)	Tim	Tim	4:15	10 pm	midnight ✓
guest appearance in C4	Jason	Jason	4:15	9 pm	midnight ✓
14/7	C4	Pauline Tim Andy	12 midday	8 pm	11 pm OUT ✓
14/7	Torca del Vasco	Jason Nobby Anita	1:00 pm	1:00 am	8:00 am ✓
14/7	Source surveying	Alex Oli	2:00		✓
15/7	C4	Pauline Tim Olly Michael	2:30	12:00 midnight	early morning ~ 7 am ✓



DATE	Where	Who	Time Lett	ETB at Camp	Callout
15/7	Surface survey E12- <sup>FEI</sup> regulation	Arita John	5.00		✓
16/7	C4	Alex Nobby Jason	13:30	24:00	07:00 ✓
16/7	Area D Surface work	Michael Mark	14:00	19:00	20:00 Beck ✓
17/7	C4	Michael Ollie Arita <del>John</del>	14:00	5:00 ✓	<del>8:30 am</del> out ✓
17/7	E12 Deig	Andy Nobby	5:00 pm	7:30 pm	9:30 pm ✓
18/7	C4	Pauline Tim Andy	1 pm	1 am	7 <del>am</del> 19/7 OUT ✓
18/7	Torca del Vasco	Alex Nobby	17:30	06:00	08:30 ✓ OUT 19/7
19/7	Torca del Vasco	Michael Andy	3 pm	9 pm	11 pm ✓
19/7	C4	Pauline Alex Nobby	3:30 pm	10 pm	midnight ✓
20/7	Torca del Vasco	Alex Ollie Jason	11:45	20:00	22:00 ✓
20/7/96	Torca del Regalan. (Photo epic)	Tim Pauline Joanne Michael Andy <del>Abby</del>	14:00	Midnight.	6 AM ✓ OUT
21/7/96	C4	Michael Ollie Jason OUT	13.00	03.00 am	8 am OUT ✓



(B4)

Date	Where	Who	Time Left	ETB	Call out
21/7	Torca del Vasco	Alex Andy	13:00	23:00	08:30
21/7	Surface Surveying from SnowPole to TdeV.	John Anita	17:30		✓
22/7	Torca del Vasco Survey & push (2)	John! Nobby Martin S. Geoff	14.00	22.00	24.00 ✓
23/7	C4	Pauline Nobby Tim B.	1 pm	3 am. 24/7	8 am 24/7 ✓ OUT
23/7	Torca del Vasco	Alex OUT Jason Gary / Fumpa Anita OUT	1:30 pm	2 am 24/7	8:30 am 24/7 ✓
23/7	Area D Shaft Bails	Andy Bobby	14:00	21:00	24:00 ✓
24/7	Area C4	Andy Bob Geoff	1:30 pm	2:00 am	<b>ALL BACK</b> 8:00 am ✓ ANDY - BACK BOB, GEOFF - DELAYED IN CAVE, OK
24/7	Torca del Vasco	Alex Jo Martin	14:00	22:00	24:00 All back ✓
24/7	snow plug cave	Fumpa Tim B	20:00		None! ✓
25/7	Area 8 (en route to Anita path).	Pauline Fumpa Tim B.	2:30 pm	7 pm	9 pm ✓



Date	Where	Who	Time left	ETB ETO	callout
27.7	C4	Nobby <sup>out</sup> ... eventually <u>5J</u> - out Martin - out Fumpa - out	3 pm	10 am 28.7	1 pm 28.7. out
28.7	C4 survey + push	<u>Pauline</u> OUT Andy Tim B	12	8 am 29.7	midday OUT 29.7
28.7	C4 rerig Monster	Jo Bob	1.00	1.00 am	<del>7.00 am</del> (29/7)
28/7	Torca del Vasco	John Anita Alex	13:30	03:00	08:30 OUT 29/7
29/7	TORCA DEL VASCO PHOTO TRIP	BOB MARTIN JOE	16:00	22:00	<del>02:00</del> 30/7
30/7	C4	PAULINE TIM BOB MARTIN GEOFF	11.45?	8 am 31/7	12.00 31/7 out
30/7	Torca del Vasco	Andy <u>Oly</u> out Alex	12:30	02:00 31/7	08:30 31/7 OUT
30/7	Surface surveying in Area F Then Verendaya for sunset	John Anita	4.30	23.00	24.00
30/7	RIDGE WALK TO JULTAYU VIA VERDILVENGA & CALLENTIE	Fumpa	14.45	21.00	22.00



BB

Date	Where, What	who <del>was</del> <sup>who</sup> left	Left	ETB	Callout
31/7	Swire Survey to Reah	Tom Anita	2.30	6.00	✓
1/8	C4 Bottom beach, Survey Connection to '95 last survey St <sup>n</sup> /Upstream.	Martin <del>OUT</del> Geoff <del>OUT</del> Alex <del>OUT</del>	11.00	10:00	13:00
			1/8	2/8	2/8 ✓
2/8	C4 - retrieval of <sup>200m</sup> rope from Marker	Nobby Jo Paul Andy Scott	11.00	<del>11:00</del> 22.00	Midnight ✓
3/8	C4 1 <sup>st</sup> wave derig (+ trip to beach with peaches)	Alex <del>out</del> Andy? <del>OUT</del> Nobby	11:30	who are you kidding?! ↓ <del>02:00</del> 4/8	08:30 4/8 ✓
3/8	C4 2 <sup>nd</sup> wave derig	Martin <del>out</del>	6.00	02.00	08.30 ✓
5/8	C4 1 <sup>st</sup> wave derig	<del>El Presidente Martin Geoff Nick</del>	12.00	WHEN	<del>9am (6/8)</del>
5/8	C4 2 <sup>nd</sup> wave derig	<del>Jo Andy Nobby</del>	4 pm	FINISH!	<del>9am (6/8)</del>
7/8	C4 derig	<del>Alex Andy Nobby Nick</del>	14:30	17:00	19:00 ✓
10/8	Vasco	<del>Andy Nick Paul</del>	16:00	08:00 (11/8)	14:00 (11/8) ✓
11/8	Vasco	Alex Bill Nobby	13.30	08.00	12.00
				12/8	12/8 ✓



Date	Where	Who	Left	ETB	Callout
13/8	Torca del Vasco	Alex OUT Nick Paul OUT	13:00	07:00 14/8	<del>13:00</del> <del>14/8</del>
14/8	Torca del Vasco Final push to sumps	Andy out? Nobby out (Nick) OUT	12:30	10:00 (15/8)	16:00 (15/8) ✓
16/8	Torca del Vasco final survey + start of denig	Paul OUT Alex	12:00	17/8 12:00	17/8 16:00
17/8	Torca del Vasco (denig to Spanish cave)	Andy - OUT Nick - OUT Nobby OUT pessimist cur +	12:00	02:00 (18/8)	09:00 (18/8)



BS

# SURVEY DATA

Please copy up ALL your survey data into this book, clearly labeling what it is and where the corresponding drawings are.

## Compass and Clino Calibrations

14/7/96

SET 1	Compass 342544 Clino 406556	Compass +0.5° Clino -0.5°	
SET 2	<del>Compass 319123 Clino 226529</del>	<del>Compass -0.5° Clino 0</del>	clino bugged 27.2.96
SET 3 (new this year)	Compass 612251 Clino 607371	Compass +0.5° Clino 0	
SET 4 (SISTECO) (not very good)	Compass 8101.0 Clino 844127	Compass +2.0° Clino 0	

Add these values to every leg to get the corrected values.

Compass corrections assume magnetic bearing from Verdelluenga bolt to Old Top Camp bolt is 291.5°  
this needs checking against Proc. 13.

$$\Delta Z = \text{Tape} * \sin(\text{clino})$$

$$\Delta EE = \text{Tape} * \cos(\text{clino})$$

$$\Delta X = \Delta EE * \sin(\text{compass})$$

$$\Delta Y = \Delta EE * \cos(\text{compass})$$

Note: Torca del Vasco section A & C4 sections CKE are in front of log book



14/7

SURFACE SURVEY: SNOW POLE TO GIZ  
COMPASS/CLINO SET 3

OLLY &amp; ALEX

(39)

FROM	TO	TAPE	COMPASS	CLINO	+0.5° CORRECTED COMPASS	+0° CORRECTED CLINO
2	1	30.00	288°	-5.5°	288.5°	-5.5°
2	3	26.30	160.5°	-2.0°	161°	-2.0°
4	3	28.27	330°	+9.5°	330.5°	+9.5°
4	5	29.75	117.5°	-9.5°	118°	-9.5°
6	5	30.06	283°	+11.5°	283.5°	+11.5°
6	7	26.17	110.5°	+12°	111°	+12°
8	7	24.44	309°	-34°	309.5°	-34°
8	8a	10.72	197°	-1°	197.5°	-1°
8	9	28.81	122°	+18°	122.5°	+18°
10	9	25.55	317°	-30°	317.5°	-30°
10	11	7.08	194.5°	-26°	195°	-26°
12	11	14.67	350°	-15°	350.5°	-15°
12	13	30.68	038°	-16.5°	038.5°	-16.5°
14	13	30.30	237°	+9°	237.5°	+9°
14a	14	29.17	174.5°	+7.5°	175°	+7.5°
14ba	14b	29.70	353.5°	-23°	354°	-23°
14c	14b	30.28	168.5°	+8°	169°	+8°
14c	14d	30.05	337.5°	-10°	338°	-10°
15	14	30.49	198°	+9°	198.5°	+9°
15	16	30.43	072°	-24.5°	072.5°	-24.5°
17	16	24.35	232°	+16.5°	232.5°	+16.5°
17	18	30.10	2028°	-18°	028.5°	-18°
19	18	28.86	284°	-17°	284.5°	-17°
19	20	22.14	049°	+3°	049.5°	+3°
21	20	12.23	313°	-4.5°	313.5°	-4.5°

## NOTES

1: SNOW POLE

8a: TAG ON F71

11: CIRCLE ON F53

14: CAIRN BY BIG SNOW PILE

17: 1.5m ABOVE MARKING FOR E7

21: F85/GIZ TAG,



15/7  
 (B10)

Surface Survey from E12 to E6 to E1 Regellon  
 compass/clino set 2

John & Anita.

-0.5°

0

From	To	TAPE <del>TAPE</del>	COMPASS	CLINO	CORRECTED COMPASS	CORRECTED CLINO
2	1a	29.32	207	+26	206.5	+26
2	1b	25.90	205	+25.5	204.5	+25.5
2	3	30.02	025.5	-25	25	-25
4	3	5.70	194.5	+22	194	+22
4	5	5.86	055.5	-36	55	-36
5	5a	1.20	—	down	—	down
6	5	24.20	314	-21.5	313.5	-21.5
6	7	20.10	118.5	+19.5	118	+19.5
8	7	27.07	292	-19	291.5	-19
8	9	29.15	098	+15.5	097.5	+15.5
10	9	17.86	257	+1	256.5	+1
10	11	24.89	162.5	+33	162	+33
12	11	24.88	300	-32.5	299.5	-32.5
12	13	24.50	119.5	+29	119	+29
14	13	28.74	257.5	-22	257	-22
15	14	11.50	265.5	-25	265	-25
15	16	13.82	052	+9	51.5	+9

Station 1b is 'F85' toy on E12

Station 1a is Cairn above E12

Station 5a is ⊗ on E6 inscription

Station 16 is peak of E1 regellon.



C4 15.7.96 Section A

instruments M.P.  
tape O.J.H.  
book T.C.G.

(S) = 'permanent' survey station  
Probably Set 3

best mark at start of rft, (S)

Station	L	R	u	D	distance	mag bearing	vert. angle
1	0	1.12	1	1.6			
↙					2.91	079°	-2°
2	0.4	0	?	1.5			
↙					3.87	078°	+6°
3	0.35	0	0.25	2			
↙					1.52	046°	+7°
4	0	0.4	0.8	0.3			
↙					6.13	055°	-8°
5	0	0.2	↑	1			
↙					2.10	061.5	+8
6	0	0.4	1.5	0.6			
↙					9.23	094	-53
7	0.4	0.5	S?	S?			
↙					2.86	074.5	-73
best 8	0.5	0	10?	6.86			
↓					6.86	-	↓
9	3	1.5	7	0			
↑					6.40	211	-9
10	0	2.3	10+	1.4			
↙					11.37	102	+2
11	1.7	0	10+	1.4			
↙					11.95	195.5	+3
12	0	2.6	10+	1.5			
↙					7.40	241	+4
13	0.8	1.2	10+	0			
↙					6.19	282	-31
14	1.5	0	1	0.4			



B12

Station	L	R	u	D	distance	mag. bearing	vert. angle
10							
↓					6.87	234	+31
15	0.8	1.5	5	0			
↑					10.19	54.5	+14
16	0	1.6	8?	2			
11							
↓					3.79	64.5	-26
17	0.7	0	0.8	2.2			
↓					2.72	356	-48
18	0	2	1.5	12			
↓					11.86	-	↓
19	2.5	1.7	15+	0			
↓					8.85	196.5	-31
20	2.8	2.5	5	♀			
↓					7.23	096.5	-14
21	0.5	0.8	3.5	0			

Rock at base of "As admitted" (S)



C4

16/7/96

Section B

Instruments / Tape  
Book

Nobby  
Alex

Instrument set 3

Station	L	R	U	D	Tape	Compass	Cling
A19 = 1	2	2	↑	0			
↓					1.55	072.5	+09
2	0	1	↑	0			
↓					0.75	031	-43
3	0.5	0	↑	↓			
↓					2.12	<del>          </del>	-90
4	0.2	2	↑	0			
↑					4.80	189	-47
5	4	1	↑	$\frac{1.6}{3}$			
↓					9.79	253.5	-22.5
5A	4	2	↑	1.3			
<hr/>							
5	4	1	↑	$\frac{1.6}{3}$			
↓					14.00	328.5	<del>##</del> +14
6	3	0	↑	$\frac{1.5}{5}$			
↑					4.31	061.5	-04
7	4	1	↑	1.6			
↓					13.55	278	-39
8	3	1.5	↑	1.2			
<hr/>							
7	4	1	↑	1.6			
↓					7.48	061	-39
9	0	1	↑	↓			
↓					0.81	081	+18
10	0	1	↑	↓			
↓					19.14	<del>          </del>	-90
11	0	5	↑	$\frac{0}{3}$			

Beside pool below inlet



20/3/14

Station	L	R	U	D	Tape	Compass	Climo
11	0	5	↑	0/3			
↑					6.89	282.5	+12
12	1.5	1.5	3	↓			
↓					6.25	—	-90
13	2	2	↑	0			
↑					2.27	280	-33.5
14	1.5	3	↑	0/1.2			
↓					1.60	108	-11
15	2.5	1	2	↓			
↓					4.34	151	-67
16	0/2	0	↑	1.5			
↑					5.62	228	-13.5
17	5	0	0/4	2			
↓					2.75	299	-31
18	0	5	4	2			

1<sup>st</sup> bolt of traverse  
line for monster part I



C4 Resurvey of top section

19.7.96

book - Pauline

Instruments - Alex (Set 2)

Tape and new ideas for measuring pitches - Noboy.

Station	L	R	u	D	Tape	compass	dino	
1	4.3	0	<sup>4</sup> / <sub>sky</sub>	1.2				cave tag
↑					2.21	093.5	+13	
2	3	1.5	"	1				
↑					12.25	202°	+62	
3	0.4	0.95	5	0				
↑					3.27	198.5°	+32	
4	0.065	0	0.7	1.7				
↑					2.79	122°	+59.5	
5	0	1.2	4.5	0.9				window
↑					2.70	065.5	+64	
6	0	0.8	1.1	pitch				Ⓛ bolt
↓					15.30	-	↓	
7	0.15	1.68	pitch	1.5				big rock at base
↑					5.54	327.5	-25.5	
8	0	1.2	pitch	1.5				
7								
↑					4.55	147.5	+60	
9	1.1	0.28	5	pitch 0.95				
↓					13.1	-	↓	
10	W 0 E 1.7	N S.24	pitch	0.2				
↑					7.20	178	-22.5	
11	1.8	0	1.63	1.4				
↑↓					8.20	206.5	-25	into an inlet
12	0	0.8	2	2				
↑					2.15	061°	+38	
13	0	0.95	1.5	1.8				



B16

Station	L	R	U	D	Tape	Compass	Uins	
11								
↓					7.20	355.5°	-5	
14	0	4	10	3.3				
↑					6.25	245°	-24	
15	1.5	0	10.5	1.4				
↓					10.95	060°	-41.5	
16	2	5	?	pitch				'parnts beat'
↓					6.75	055.5	-48	
17	S = 4.05 SE = 4.3			1.85				top b/wt on 'space'
↑					4.03	105	+63	
18	wall behind = 2.2		10+	pitch				
↓					36.04	-	↓	
19								centre of chamber

survey legs ~~from~~ <sup>to</sup> station 19 ~~to~~ <sup>from</sup> walls. (~~last bearings~~)

20					6.35	009	
21					7.1	057.5	
22					<del>3.65</del> 3.65	112	
23					3.55	302.5	

19								
↑					7.90	256	-60.5	
24	2.7	1.3	10.3	1.5				Alex's nose
↓					2.66	059.5	-12.75	
25	0	1.15	0.8	1.68				PSS b/wt.



Torca del Vasco Section B 6<sup>th</sup> pitch - 11<sup>th</sup> pitch 20/7/96

Book Alex

Tape / Instruments Olly & Jason Set 2

	Station	L	R	U	D	Tape	Compass	Climo
	A23= 1	1	0	↑	↓			
	↓					24.11	—	↓
	2	0.5	0.7	↑	0			
	↑					2.27	268.5	-3
	3	1.5/5	1	↑	0/↓			
	↓					3.80	—	↓
	4	4	0	↑	1			
	↑					4.90	251	-15
	5	1.3	1	↑	0			
	↓					6.40	102.5	+9
	6	0	0.3	0.3	1.7/↓			
	↓					1.59	120.5	-49
Bolt	7	2.5	0	↑	↓			
	↓					5.40	—	↓
	8	2	0.7	↑	0/4.5			
	↑					2.10	285	-1
	9	0.5	0	↑	1			
	↓	<del>0.5</del>	<del>0</del>	<del>↑</del>	<del>1</del>	9.92	102.5	+2.5
	10	0	0.2/0.6	1	1			
	↓					3.70	109	-22
	11	0.6	0	0.7	↓			
	↓					6.22	101	-74
	12	0	0.3/2	↑	↓			
	↑					3.70	<del>285</del> 85	<del>-4.5</del>
	12a	0	0.95	2.5	2			
	↑					2.30	135.5	-13.5
	12b	0.5	0	↑ climb	4			
	↓					5.85	264	-51.5
	12c	0	0.7	5	1.6			



B18

Station	L	R	U	D	Tape	Compass	Climo
12c	0	0.7	5	1.6			
↓					4.60	282	-18.5
12d	0.95	0	2	2			
<hr/>							
12	0	0 <sup>3</sup> / <sub>2</sub>	↑	↓			
↓					5.94	—	↓
13	0 <sup>0</sup> / <sub>0.8</sub>	0.2	↑	↓			
↓					28.81	—	↓
14			↑	↓			
↓ <del>13</del>					4.86	—	↓
15	0.3	2.6	↑	0			
↑					4.91	270	-22
16	1	0	2.5	1.5			
↓					6.17	105	+57
17	2.5	0	↑	1.8			
↓					3.45	195	-10
18	0 <sup>0</sup> / <sub>0.3</sub>	0.7	↑	↓			
↓					8.13	114	-66.5
19	←	0	↑	↓			
↑					7.24	078	+54
19a	0	4	↑	6			
<hr/>							
19	←	0	↑	↓			
↑					5.52	183	+20
20	0	0.3	0.5	1			
↑					2.48	248	+20
21	0.6	0	0.5	1			
↑					2.67	156	+24
Bolt	2	0.3	0.5	↓			
↓					6.08	—	↓
23	0 <sup>0</sup> / <sub>0.7</sub>	0 <sup>0</sup> / <sub>0.7</sub>	↑	0 <sup>0</sup> / <sub>1.6</sub>			



Station	L	R	U	D	Tape	Compass	Climo
23	$\frac{0.1}{0.7}$	$\frac{0}{0.7}$	↑	$\frac{0}{1.6}$			
↓					4.19	342	+74
24	0	1	↑	↓			
↑					3.62	221	+30
25	0	0.8	1	1		<del>221</del>	
↓					3.75	91	-14
26	0	0.5	0.4	0			
↑					2.50	305	-15
27	0.3	0	0.6	1.2			
↓					2.08	90	-25
28	0.6	0	0.5	$\frac{0.7}{1.7}$			
↓					4.09	32	-35
29	0	1	0.7	1.4			
↓					3.34	99	-26
30	0.8	0.1	0	0.2			
↓					1.66	120	+8
31	0	0.2	0.6	0.6			
↓					0.86	168	-3
32	0.5	0	0.8	0.6			
↓					2.40	92	-24
33	0.2	0.3	0.4	$\frac{0}{0.3}$			
↓ <del>33</del>					2.87	123	-23
34	0	0.7	$\frac{0}{1}$	$\frac{0.5}{0.8}$			
↓					2.34	219	-41
Knot of yhang 35	0.2	0.2	1.2	↓			



(B22)

Surface survey Snow pole - Torca del Vasco

21/7/96 Instruments (SET 2) Anita & John  
Book John & Anita

Station		Distance	Bearing	Climo
From	To			
2	1	23.55	170.5	+9
2	3	27.68	330.5	+3
4	3	29.88	128	-8
4	5	31.46	343	-23
6	5	10.75	144.5	+10
6	7	22.50	338	-56.5
8	7	23.82	121.5	+7
8	9	15.03	295.5	-2
10	9	27.65	169	+15
10	11	29.05	350.5	-20
12	11	31.44	183.5	+22
12	13	15.02	335	-4
14	13	30.34	159	+14
14	15	27.80	340.5	+1.5
16	15	26.00	117	+2
16	17a	8.68	299.5	-32.5
16	17b	9.00	284.5	-36

Station 1 is base of snow pole  
Station 17a is centre of red dot on  
Polifino marking at T del V

Station 17b is bolt on 1st pitch of Torca  
del Vasco.



Torca del Vasco  
Book Alex

The Big Sleep → The Marge Tub  
Section C

2/17/96

Tape Instruments

Andy

Sec 3

Station	L	R	U	D	Tape	Compass	Climo
B35 = 1	0.2	0.2	1.2	↓			
↓					6.82	—	↓
2	<del>0.1</del>	→	↑	0% ↓			
↑					2.24	052	+18
3	←	<del>0</del>	↑	<del>0.5</del>			
↑					4.17	113	+35.5
3a	1	0.5	↑	1/2			
<hr/>							
3	←	0	↑	↓			
↑					3.84	274	+47
4	0.4	0	↑	↓			
↓					4.42	—	↓
5	0.8	0.3	↑	0			
↑					3.42	264	-21
6	0.6	0.2	↑	0.2% ↓			
↑					3.77	179.5	-35
7	0	0.8	3	0.5 / 1.5			
↓					3.39	119	-27
8	0.2	0.2	0	0.5			
↓					1.80	132	-25.5
9	0.3	0.3	0	1.4			
↓					1.57	209.5	-36
10	0.6	0	0.2	0.6			
↓					2.86	123	+33
11	0.05	0.5	0	0.25			
↑					1.45	356.5	-16
12	0.2	0.3	0.3	0.6			
↑					0.54	272	-3.5
13	0.2	0	0.5	0.8			



1322

Station	L	R	U	D	Tape	Compass	C/Ino
13	0.2	0	0.5	0.9			
↓					1.09	51	-17.5
O	0	0.5	0.1	0.7			
↑					1.34	286	+2
M	0.1	0.3	0.5	1			
↓					4.49	130	-14.5
L	0.6	0	0	↓0.6			
↑					2.28	242.5	+21.5
K	0	0.3	0.6	0.7			
↑					1.28	190	+14.5
J	0	0.4	0.3	0.6			
↓					1.28	318.5	-28
I	0	0.5	0.5	0.8			
↑					0.89	234	+17.5
H	0	0.4	0.6	0.5			
↓					0.69	16.5	+4.5
G	0	0.4	0.1	0.6			
↑					3.60	219	+54
F	0.4	0.3	0.5	0			
↓					4.69	42	-34.5
E	0.7	0	0.4	0.3/2.6			
↓					2.53	2	-28.5
D	0.5	0.2	0	↓			
↑					3.70	164	+66
C	0.7	0.3	2	1.4/3			
↑					5.51	11	+31.5
B	0	1.2	10+	1.5			
↓					5.99	254.5	-32
A	0.7	0.7	10+	1.4			



Torca del Vasco The Marge Tub

2317

Book Alex / Jason Section D

Instruments Jason / Alex / Fumpa / Anita

Set 3

Station	L	R	U	D	Tape	Compass	Climo
corion below Arctian planet E1 = 1	2.6	1.7	↑	0			
↑					19.00		↓
2	2	1	↑	0/↓			
↑					4.00	95	-9
chamber behind Arctian planet pitch used.	2a	1.1	0	↑	1.2		
↑					6.70	10	+9
2b	2	2	↑	1.5			
2	2	1	↑	0/↓			
↓					2.03	198	-2.5
3	←	0.2	↑	0			
↑					9.13		↓
4	1.5	0.5	2/↑	1/↓			
↓					4.37	257	-25
5	0	0.7	0.5	↓			
↑					1.40	348	+50
6	0.7	0	0.1	0.5			
↑					1.07	325	+2
7	0.5	0	0.5	0.7			
↑					1.50	347	-43
8	0.5	0.5	1	0			
↑					1.94	339	+14
9	0	0.4	<del>0</del>	0.5			
↑					2.51	305	+39
10	1.75	0	3	2			
↑					3.13	195	-18
11	1	0	0.5	1			
↑					1.85	154	-54
12	0	0.5	0.5	2			



B243

	Station	L	R	U	D	Tape	Compass	Climo
	12	0	0.5	0.5	2			
↑	12					2.56	<del>14.55</del> 145.5	-15
	13	1	<del>2.5</del> 0.5	0.5	0			
↑	13					3.10	346	-44
	14	1.5	<del>0.5</del>	↑	0			
↓	14					4.90	240	-24
	15	1.5	0	↑	1.5			
↑	15					16.18	0	↓
	16	0	0.5		↓			
↑	16					4.70	47	+14
	17	2	0	↑	1			
↑	17					4.50	0	↓
	18			0	↓			
↑	18					3.58	35	-31
	19	0.2	0	0.75	↓			
↑	19					1.35	26	-45
	20	0.4	0	0.9	0.6			
↑	20					3.63	334.5	-44
C.C =	21	0.2	0.8	1.5	2.5			



Surface Survey F54 → F64 → F70

25/7

Book Alex

Tape Nobby

Instruments John

Set 3

Station	Tape	Compass	Cline	Note
1				F53 centre of ⊗
↑	25.34	002	-23.5	
2				
↓	30.50	151	+36	
3				
↑	8.58	359.5	-34	
4				
↓	20.30	148.5	+33.5	
5				
↑	29.18	323.5	-33	
6				
↓	26.98	195.5	+31.5	
7				
↑	27.86	323.5	-6.5	
8				
↓	9.07	150.5	+14	
8a				E8 centre of ⊗
<hr/>				
8				
↓	30.33	070	+24	
9				
↓	1.64	<del>          </del>	↓	
9a				
<hr/>				
9				
↑	30.14	324	+9	
10				
↓	11.57	201	+14.5	
11				E11 tag



B26

Station	Tape	Compass	Climo	Note
8				
↓	26.80	194	+18	
12				
↑	29.09	078.5	-5	
13				
↓	23.38	281.5	+25	
14				
↑	17.67	188	+33	
14a				
↓	9.12	206	-1.5	
14b				E10. centre of O
<hr/>				
14				
↑	29.56	066.5	-25	
15				
↓	6.66	205	-20	
15a				E9 centre of O
<hr/>				
15.				
↓	11.00	279.5	+14.5	
16				
↑	16.79	018	-22	
17				
↓	21.43	195.5	+29	
18				F64 1 <sup>st</sup> survey station Δ
<hr/>				
16				
↑	16.12	180.5	+14	
19				
↓	30.50	333.5	-39.5	
20				
↑	26.53	127	+25	
21				



Station	Tape	Compass	Climo	Notes
21				
↓	16.73	300.5	-21	
22				
↓	2.41	191	-31.5	
22a				F52 centre of ⊗
22				
↑	8.68	093.5	0	F56, looking down entrance
22b				
22				
↑	17.01	112.5	-10.5	
23				
↓	27.73	303	-19	
24				
↑	13.22	179.5	+23.5	
25				
↓	27.32	334.5	-27	
26				on bridge above obelisk
↑	27.18	108	+1	
27				cairn on bridge (Δ 50cm away)
↓	8.96	328	-26	
28				
↑	17.22	171.5	+28	
29				
↓	21.70	295	-30	
30				
↑	19.44	0.76	+9	
31				
↓	5.31	217	+5	above F70
31a				
↓	19.89	012.5	-25	cairn near F70
32				



(B23)

Surface Survey

F66 → F50

2717

Book Alex

Tape Anita

Instruments Pauline

Set 2

Station	Tape	Compass	Climo	Notes
<del>F54 → F64 → F70/27</del> = 1				
↑	30.55	25.5	-15.5	↖ Snow Pole cairn <del>on bridge</del>
2				
↓	29.86	189.5	+4	
3				
↑	26.91	18.5	-13.5	
4				
↓	30.38	191	-0.5	
5				
↑	18.11	16	-3	
F54 → F64 → F70/32 = 6				cairn near F70
<hr/>				
F54 → F64 → F70/27 = 7				cairn on bridge (next to it)
↑	19.80	038.5	-16	
8				
↓	23.93	66	+5	
9				
↓	2.48	156	+7.5	
9a				F66 tag
<hr/>				
9	<del>12.63</del>			
↓	12.63	265.5	+5	
10				
↓	21.09	308	-16.5	
10a				F67 tag
<hr/>				
10				
↑	30.68	353	-7	
11				



Station	Tape	Compass	Climo	Notes
11				
↓	28.64	154.5	+5.5	
12				
↑	23.25	328	-17	
13				
↓	17.80	165	+14	
14				
↑	29.53	10	+1	
15				
↓	11.56	197	-9	
15a				centre ⊗ F51
<hr/>				
15				
↓	20.72	168.5	+16	
16				
↑	26.95	323.5	+1.5	
17	<del>26.95</del>	<del>323.5</del>		
↓	26.70	207.5	+0.5	
18	<del>26.70</del>	<del>207.5</del>		PSS F50
<hr/>				
13				
↓	5.21	45	+34	
13a				
↑	13.62	263	-13.5	
13b				
↓	21.41	114	+20	
13c				Tag F68.



B30

C4 SECTION D.

C4 Brew station

(Bob. 12)

(Fampa)

instruments

work ~~RRK~~, ~~AK~~ also GN, AK.

Set 3

25.7

C14 =

Station	L	R	U	D	Tape	Compass	Clino	
1	5	0	?					
↓					4.93 m	268°	-36.5°	
2	0	2	10	15				
↑					18.5	182°	+75°	
3	2	0	10	15				
↓					9.82	353°	+3	
4	0.5	0	0.5	15				
↓					2.63	347°	+2	
5	0	0.5	1	6				
↓					4.90	002°	-40	
6	4	4	10	6				
↓					12.54	357.5°	-52°	
7	0.8	1.0	3.5	11.47				
↓					11.47	Plumb	/	
8	1.5	1.8	15	0				
↓					3.31	353.5°	-6°	
9	8	10	29	7				
↓					9.11	Plumb	/	
10	10	8	16	8				
↑					9.21	244°	+57°	
11	NOT done							

E1 =

~~RRK~~



Torca del Vasco

SECTION E

28/7

Book : John

Tape : Alex & Anita

Instruments : Anita

SET 1

LRUD facing into cave.

Station	Tape	Compass	Climo	L	R	U	D
D1 = 1				2.5	2.5	↑	0
↑	4.30	211	-9				
2				1:0	1.3	14? ↑	↓
↓	16.03	-	down				
3				0.7	0	↑	0.6
↓	1.44	035	+27				
4				0	0.7	↑	1.8
↑	2.00	280	+51				
5				0.5	0	↑	1.5
↑	1.98	168	+21				
6				<del>1.1</del>	<del>0</del>	↑	0.6
↓	1.80	075	-17				
7				0.7	0	↑	2.5
↑	6.16	110	+4				
8				0	1.2	↑	1.4
↑	1.61	219	+6				
9				0	0.7	↑	$\frac{0}{2.5}$
↓	8.95	342	+33				
10				0	0.8	↑	$\frac{1.5}{5?}$
↑	4.58	230	-39				
11				0.8	0	0.15	0.3
↓	3.47	005	+29				
12				0	0.6	$\frac{4}{↑}$	1.6
↑	6.03	237	-1				
13				1.2	0	$\frac{0.3}{3.5}$	1.6

INLET DRIPS IN ABOVE 8



1332

Station	Tape	Compass	Climo	L	R	U	D
13							
↓	3.68	339	-3				
14				0.1	0.7	$\frac{0.4}{3.5}$	1.4
↑	8.75	261	+7				
15				0.8	0	$\frac{0.2}{4}$	0.4
↓	2.98	145	-5				
16				0	1.0	4	1.3
↓	2.90	134.5	-2				
17				1.1	0	4	$\frac{1}{1.6}$
↑	5.10	230	+59				
18				0	0.4	↑	1.4
↑	2.01	255.5	+14				
19				0	0.5	0.4	1.4
↓	4.16	116	+3				
20				1.0	0	8	1.0
↑	3.89	200.5	+9				
21				0.9	0	6	1.5
↓	3.50	010	-26				
22				0	0.8	3	2.5
↑	3.85	270.5	+13				
23				1.2	0	$\frac{0.5}{5}$	1.2
↓	7.29	069	-35				
24				$\frac{0}{3.0}$	1.4	3.2	$\frac{1.2}{2.2}$
↑	4.55	223.5	+20				
25				0	0.6	$\frac{0}{3.5}$	0.8

(18) beneath rock bridge

(23) = back up bolt to P4

INLET COMES IN FROM LEFT @ (24)

INLET →  $\frac{0}{3.0}$

(25) bolted hole next to large carbide S on LH wall before pitoh P10?



C4 section F, Book PAK, tape TB, instruments set 3 AK.

	Station	L	K	u	D	tape	compass	clino
= E19	1	1.8	0	5	0.5	<del>1.83</del>	<del>262</del>	*
↓	ENT					1.83	262	+2.5
↓	2			?	Atch			
↓						11.35	—	↓
↑	3	2	2	Prm	0.5			
↑						2.55	189.5	+16
↑	4	3	0					
↑						6.10	130	-23
↑	5	5	0	?	1.6			
↑						3.63		
↑						<del>3.30</del>	115	+1.5
↓	6	3	2	25	8			
↓						5.30	350.5	+9
↑	7	1.5	2	Atch	8			
↑						6.90	156	+67
↑	8		0					
↑						4.47	093	+62
↓	9	0						
↓						4.20	051	-61
	10	1.5	0.5	1	0.2			



1234

30/7/96 Surface survey T de V to DZ

Book: John Instruments: Anita  
SET 2

Station				
From	To	Tape	Compass	Clino
2	1	11.31	258.5	-40
2	3	22.90	336.5	+1
4	3	15.30	130	-1
4	5	26.94	294.5	-9
6	5	24.22	065	-9
6	7	19.26	257.5	+8
7	8	8.67	296	-32
5	5a	16.55	333.5	-26
5b	5a	30.32	184.5	+3
5b	5c	30.90	003.5	+3
5d	5c	27.78	159	-11

1 = DZ Tag

5a to 5c = Terminal Moraine in Vega de Aliseda

5d = Naranja de Balues shaped rocks with orange lichen on top at N. end of Moraine

8 = Red dot of POLIFIMO at Torca del Vasco



30/7/96 Surface Survey F13 to F41

Book: John Instruments set 2, Anita

From	To	Tape	Compass	Cline
1	2	5.18	301.5	-18
3	2	26.98	238	+1
3	4	21.36	001	-9
5	4	18.65	202.5	+30
5	6	17.60	039	-31

1 = '0' at 'F13 Oucc'

6 = '0' at F41



836

30/7/96

# Surface Survey 'above F59A'

Book : John

Instrument

SET 2 : Anita

From	To	Tape	Compass	Climo
2	1	21.16	270.5	+2
2	3	25.43	146	+19
3	4	1.58	221	-12
2	5	29.20	034	+16
6	5	26.15	210	-32
6	7	16.52	073	+31
P1	P2	18.90	107.5	-3
P3	P2	30.84	322.5	+9
P3	P4	23.00	217	-15
<del>7</del>	P4	23.24	091	+20

- P3 = Rock next to Caion on pass between La Verde Lengua and F64 shoulder
- P1 = top of subsidiary (F64) peak of La Verdallengua.
- 4 = ~~at~~ at F59A
- 1 = Point between F60A and F60B  
shaft A 3m on 30° shaft B 2m on 210°



Surface Survey C9 → C8 29/7/96  
Book ~~Olly~~ Instruments Alex Set 1

From	To	Tape	Compass	Climo	Notes
2	1	2.47	285	+2.5	1= Bolt, scare
2	3	8.53	269	+22	of C9 survey
4	3	12.77	070.5	0	2= C9 Tag
4	5	28.07	301.5	-11.5	
5	6	6.19	154	-31.5	6= C20 Tag
5	7	11.03	119	-19.5	<del>7= Above C21</del>
5	8	30.33	035.5	-29	
8	9	3.89	140	-6	9= C19 (tag is ac bottom of entrance)
8 <sup>8</sup>	10	8.48	232.5	+50	
10	11	3.91	287.5	+3	11= C8 Tag



638

Torca del Vasco

Section F

30/7/96

Book Alex

Tape Andy

Instruments Olly

Set 3

	Station	L	R	U	D	Tape	Compass	Climo
Backup Bolt for handline	1	0	2.2	0.7	1.1			
	↑					7.00	84.5	-11.5
	2	2	0/1	1.3	1.3			
	↓					3.73	254	+18
	3	0	1.5	2	1			
	↑					5.84	96.5	+18
	4	0	1.5	0.6	0.8			
	↓					9.00	234	+22.5
	5	0.7	0	1.7	0.5/1.8			
	↑					7.34	057	-6
	6	0.5	0.7	3	0.4/1.6			
	↑					8.23	101.5	-31
	7	0	0.8	2	3.5			
↑					5.90	107.5	+4.5	
8	0.3	1.2	0	1/3				
↑					8.90	47.5	-3.5	
9	0.1	0.4	2	1				
↑					2.13	330.5	+24	
10	←	1	1.7	1				
↓					5.62	223	+11	
11	1.2	0	6	1.4				
↓					6.00	195	0	
Bolt for undescended pitch	11a							
	11	1.2	0	6	1.4			
↓		<del>1.2</del>	<del>0</del>	<del>6</del>	<del>1.4</del>	7.82	198.5	+11.5
12	0.5	0.2	6	1.7				
↑					6.09	101	-83	
13	0	0.3	1	1.5/↓				



Station	L	R	U	D	Tape	Compass	Climo
13	0	0.3	1	1.5			
↑					2.63	091	-10.5
14	0.2	0.5	1	1.5			
↓					5.34	218	+14.5
15	0.5	0.5	↑	1.5			
↑					5.68	037	-55
16	0.5	0.3	↑	↓			
↑					6.46	041.5	-70.5
17	0.5	0.5	1	↓			
↑					3.68	038.5	+24
18	0	1	1.5	↓			
↑					2.73	017	+7
19	0.5	0	3	2			
↓					0.62	304	-14

E25 = 20



BKD

which set instruments?

U4 Section G

book PAR, RK, TB.

	Station	L	R	U	D	tape	compass	clino.
= F10	1	1.8	1	4.5	2			
	↓					5.43	310	-45
	2	0.5	0.8	4	5			
	↓					5.67	275	-15
	3	0	0.6	?	2			
	↓					2.20	245.5	-4
	4	0	1.5	2	1.1			
	↓					4.94	324	-71
	5	0.4	0	2.5	3.2			
	↓					3.20	rumB.	
	6	0	0.8		0.6			
	↓					5.76	295	-5
	7	0.4	0					
	↓					1.05	235	+3
	8	0			ATCH			
	↓					17.50	rumB	
	9	2	2.7 ledge	ATCH	0			
	↑					2.70	021.5	0
	10				ATCH 0			
	↓					4.60	182	-72
	11	0.8	0	ATCH	0.6			
	↓					4.25	171	-8
BOLT	12	0	0.8	?	ATCH			
	↓					33.80	rumB	
ATCH BASE	13	2	5	ATCH	0			
	↑					5.10	333.5	0
	13A				ATCH 9.3			



beginning of  
grassy rft.

LARGE  
MARK.

Station	L	R	u	D	tape	compass	dino.
13							
↑					9.35	002	-37
14	1.8	0		0.8			
↑					7.90	024	-12
15	0.3	0	-	-			
↑					2.42	033	+12
16	0.3	0	-	-			
↑					2.85	005	+6
17	0	0.3	-	-			
↑					5.84	042.5	0
18	0.3	0	-	-			
↑					0.96	007	+12
19							
↓					14.18	rumB	
20	2.2	1.2	PITCH	4			
↑					3.75	045	+35
21	2.5	0.1		3			
↑					3.74	080	+45
22	0	1.5	?	0.5			



(Blk)

31/7/96 Surface EQ - Peak at La Verdavalleya

Instruments SET 3 : Anita

Book : John

<u>From</u> <u>Tape</u>	to	Tape	Compus	Clino
2	1	7.97	251	-11
2	3	21.33	140	+23
4	3	22.80	324.5	-14
4	5	25.44	191.5	+32
5	6	16.33	213.5	+46
7	6	16.33 (horizontally)	326	-21
8	7	18.79	054	-24
8	9	4.36	252.5	+6
10	9	29.72	349	-4
<del>10</del>	<del>11</del>	26.23	154	+22
12	11	30.44	305	-21
12	13	26.68	105	+24
14	13	27.37	111	-27
14	15	30.57	105.5	+29
16	15	18.92	268	-29
16	17	27.40	061.5	+40
18	17	12.78	269.5	-42
18	19	12.94	003.5	+33
19	20	2.83	013	-6
5	5a	8.13	244	+45
15a	15	18.20	352	+8
15a	15b	19.04	159	0
15b	15c	23.02	223.5	-28

Station 1 = '0' on EQ

Station 5a = Entrance crawl below left of tree (heading 320°)

(PTO)



- Station 9 = Rock on pass of La Verdelluenga
- Station 20 = Bolt on La Verdelluenga Peak
- Station 15c = view point over El Joan at top of green tongue (lowest point)
- Station 16 = Pointed rock just before climb to peak.

### Cueva del Arco (F57)

Bearing from Peak 276.5° converted 277°  
 Clino from Peak -11.8°

Bearing from Cairn on route back from F64  
 (same junction point in surveys above F70) converted 251°  
 250.5°  
 Clino +2°

Bearing La Verdelluenga - Maria Rosa Converted to Mag North  
 332.5° 333°  
 -10.3° Clino -10.3°



Blk

C4 Section H

Book Alex

Tape Martin

Instruments Geoff

Set 3

Station	L	R	U	D	Tape	Compass	Climo
95 PSS = 1	3	2	5	0/1			
↑					14.20	016	+31
2	0	0.7	0.8	0.2			
↓					2.34	265.5	+6
3	0.2	1	0	↓			
↑					3.51	021	+62
4	1	0	0.8	0.2			
↓					3.70	264	-21
5	1	1.2	1.5	0 1/2			
↑					5.72	037.5	-45
6	2	0.5	0	3			
↓					7.37	217	-45.5
carbide 5 on rock bridge = 7	0/1.5	1.5	2	1			
↑					4.49	021	-3
8	1	0	2	1.3			
↓					7.43	237	+7.5
9	0/2	0.5	↑	2			
↑					7.22	037	-17
10	4	0	↑	0.7			
↓					3.99	219	-35
11	1.2	0.3	↑	1.5/3			
↑					10.62	011	+2
12	1.5	0	↑	1.5			
↓					6.34	221	-8
13	0.5	0.5	3	1			
↑					5.00	039	-34
14	0	2.5	↑	1.5			
↓					16.44	217	-10.5
15	0	0.8	1.5	1.2			



Carbide  $\frac{5}{CH}$

Station	L	R	U	D	Tape	Compass	Climo
15	0	0.8	1.5	1.2			
↑					5.99	031	-38
16	0	1.5	4	$1\frac{2}{3}$			
↓					5.92	193	-22
17	$\frac{1}{3}$	1	7	0			
↑					3.93	0	+23
18	0	0.5	1.6	1.6			
↓					4.74	159	+49
19	0.1	2	4	1.8			
↑					4.76	293	-16
20	<del>0.2</del> $\frac{1.2}{3}$	0.3	1.6	$1\frac{4}{3}$ ↓			
↓					5.47	170	-15
21	0.4	1	1.2	0			
↑					4.10	291	+29
22	$\frac{0}{1.2}$	0.5	1.8	1			
↓					3.26	138	-14
23	0	0.4	1	2			
↓					3.95	201	0
24	0.2	0.2	0.5	$\frac{0}{1}$ ↓			
↓					4.90	211	+12
25	←	0.5	0.5	0.7			
16	0	1.5	4	$1\frac{2}{3}$			
↓					11.77	215	0
16a	0.5	1	↑	2			
↑					4.88	005	+48
16b	0.5	0	↑	1.5			
↓					8.83	211	-2
16c	1	0	2	1.4			
↑					4.11	133	-20
16d	0.4	1.5	$\frac{0}{1.5}$	$1\frac{3}{3}$			



B46

Station	L	R	U	D	Tape	Compass	Climo
16d	0.4	1.5	0/1.5	1.3/3			
↓					4.33	349	+8
16e	1	1.5	1	0/2.5			
↑					29.90	173	+3
16f	2	0	↑	1			
↓					14.08	008	+3
16g	0	→	↑	1.2			



C4 Rigging Guide

~~Window~~  
~~Alvaro's Leap~~

Entrance Pitch		Ladder - spike belay
Window + Alvaro's Leap	40m	Thread (L), Thread hang (L) Chockstone rebelay (R), Spike Deviation (L) Bolt Rebelay (L)
Traverse	<del>15m</del> 5m	Thread (R) Bolt hang (R) rope protector for knot rubs like hell.
Space, the Final Frontier	65m	Bolt (R) Bolt hang (R) Bolt Rebelay (L)
Watershed	20m	Bolt Backup (L) Bolt hang (L) Bolt Rebelay (R)
Fizzy Willy	20m	Spike <del>hang</del> <sup>traverse</sup> (L) Bolt hang (R)
As Advertised	?	Thread traverse (L) Bolt hang (L) Bolt Rebelay (L) Bolt Rebelay (R)
Maria Rosa	40m	Bolt backup (R) Bolt (R) Chock deviation (at pitch head) (L) Thread deviation (R)
Double Fisherman's	30m	Bolt traverse (on ledge above) (R) Bolt Y-hang (R, R) Spike Deviation (R) (pitch head)
Nice Rig But...	10m	Spike (L) Thread (R) Y-hang.
The Monster Part I	155m	Spike Traverse (R) Bolt <del>hang</del> (L) Bolt Rebelay (L) Spike Deviation (L) Bolt Rebelay (L)
	Page II	"
Growing Up	?	3 Bolt Traverse (R, R, R) Bolt Hang (R) Bolt Y-hang Rebelay (R, R) Thread? Backup (L), Bolt? (L) Natural? (R) Y-hang, 2 Bolt Traverse (R, R)
?	"	Bolt hang (R) Thread Rebelay (L) Bolt Traverse
? The Crucifix	35m	Backup from Previous Rope Bolt Y-hang (L, R)
Hash Brown	"	Bolt Y-hang (L, R) Spike Deviation (L) Spike Deviation (L)



B48

Bugger Bognor	15m	Bolt (L), Bolt (R), Spike (L) Tri-hang
? Cat o' nine tails	90m	Bolt Y-hang (L) <sup>Bolt Traverse (L)</sup> One bolt very high <del>Bolt</del> Bolt, Spike on ledge (R,R) <sup>wide swing outside</sup>
Free 'n' Easy	60m	Bolt Rebelay (R) Bolt Rebelgay (R) Large Spike backup (L) Spike hang (R) Spike deviation (R)
?	15m	Bolt Backup (R) Spike hang (R)
Hope Street	340m	3-Bolt Traverse (R,R,R) Huge Spike <sup>4</sup> Rope Protector Useful Spike Backup (R) Spike hang (R) Spike Deviation <sup>Thread (L)</sup> Traverse
The cheating Necromancer	125m	Bolt (L) Thread (R) Y-hang
Here be Dragons	"	Bolt Traverse (L) Bolt Y-hang (L,L)
Marie Celeste	40m + 2 ladders	spike for <del>2</del> ladders spike (crab + sling) for lifelining from bottom.



Torca del Vasco Section G

Book Alex Tape Bill  
 Instruments Alex / Nobby Set 1

Station	L	R	U	D	Tape	Compass	Climo
1	0.4	1.2	3	1.6			
↓					6.59	227	+35.5
2	0	1.3	0.3	0.5			
↑					15.16	27	-34
3	1	1	0	1.3			
↓					7.99	198	0
4	1.2	0.4	1.6	0			
↑					5.17	347	+9.5
5	1.6	0	↑	↓			
↓					3.78		↓
6	2	0.1	↑	0			
↑					3.05	179.5	-3.5
<del>7</del> 7=bolt	0	1.2	↑	↓			
↓					5.95		↓
8	0.7	1.4	↑	1			
<hr/>							
5	1.6	0	↑	↓			
↑					5.19		↓
9	0.4	1.4	0.5	↓			
↓					1.70	180.5	+11
10	2	0.2	1.2	0/↓			
↑					6.44	316	-36
11	0.2	1.2	0.6	1.2			
↓					3.60	152.5	+32.5
12	2	0	1.5	0.3			
↑					6.05	284	-29
H6 = 13=bolt	1.8	0	0	1.4			







Station	L	R	U	D	Tape	Compass	Climo
8	0	1.5	1.7	3.2			
↓					8.441	201	+17.5
9	0	1.2	3	1.5			
↑					8.12	311	-32.5
10	0.4	0	3.2	1.5			
↓					15.31	219.5	+47
11	3	0.5	0	2			
↑					3.28	131	+1
F1 = 12 = bolt	0	2	0.5	1			
<hr/>							
G.E = A=1	0.2	1	3	↓			
↑					9.68	111	-50.5
carbide S = B	0	2/	2.8	1.2			
↓					2.31	351.5	+27
C	0	0.6	0.2	1.4			
↑					3.75	127	-28
D	0.7	0	0.9	2.2			
↓					7.29	266.5	+24
E	0.4	0.6	↑	2			
↑					4.35	118	-57.5
F	0.5	0.3	4	1.5			
↓					2.21	261	-31.5
G	0.5	0.1	0	0.5			
↑					1.27	40	+13
H	0.3	0	0.5	2.5			
↓					2.03	196	-43
I	0.7	1.5	1.1	1			



B52

Surface Survey F46 → F7D → F42 → F57 → F11 → F12 → F54  
~~Survey~~ Book Alex Tape Bill  
Instruments Paul Set 2?

From	To	Tape	Compass	Climo
2	1 = F46⊙	16.83	002	-22
2	3	26.50	247	+7
3a	3	23.20	198	+24
3a	3 <sub>b</sub> = F7D⊙	2.00	/	↓
4	3	30.90	087	-8
4	5	27.31	251	+7
6	5	18.30	052	-18
6	6a = F42⊙	1.00	177	-22
6	7	29.52	241	+19.5
8	7	25.59	033	-28
8	9	29.40	269	+25
10	9	29.50	059	-33
10	F57⊙ = 10a	19.72	117	-34
10	11	30.55	232	+38
12	11	30.31	019	-32
12	12a = F12⊙	17.93	106	-8
12	12b	24.53	147	+23
12b	12c = F11⊙	1.40	/	↓
12	13	10.26	275	-1
13	14 = F54⊙	18.14	342	-43



Rigging Guide	Torca del Vasco	
Entrance Pitch	40m	Spike, bolt rebelay, thread rebelay
2 <sup>nd</sup> Pitch (Here a bolt)	25m	bolt traverse (L), bolt hang (L) bolt deviation (pitchhead) (R)
3 <sup>rd</sup> Pitch (There a bolt)	20m	3 bolt traverse (R, R, R) spike backup (L) bolt hang (L)
4 <sup>th</sup> Pitch (Reel for danger)	35m	spike traverse (R) bolt hang (L) bolt (L) spike (R) Y-hang rebelay
5 <sup>th</sup> Pitch	"	bolt hang (L)
6 <sup>th</sup> Pitch (Gone with the gear)	40m	bolt traverse (L), bolt (R) spike (L) Y-hang, thread deviation (L) spike deviation (end of ledge)
7 <sup>th</sup> Pitch (The needle)	15m	thread traverse (L) (before eyehold) bolt (R, R) Y-hang.
Pitch 7a	10m	spike traverse (L) bolt hang (far wall)
8 <sup>th</sup> Pitch	55m	bolt traverse (R) bolt hang (L) bolt (R) spike (L) Y-hang rebelay.
9 <sup>th</sup> Pitch	15m	spike? traverse (L) bolt backup (R) bolt hang (R)
Open all 'ours	10m	spike traverse (R) bolt hang (far wall)
The Big Sleep	20m	bolt backup (L) bolt hang (R) rebelay (L)
Cereal Killer	ladder	spike
Lucky 13	15m	thread traverse, bolt hang (far wall)
Bolt Farming	20m	bolt traverse (L) bolt hang (L)
traverse	10m	thread (high) (R) large thread (high) (L)
Another girl	15m	large thread (high) (L) bolt (R, ?) Y-hang?
Another planet	30m	backup to previous pitch bolt (L, R) Y-hang <del>long</del> thread deviation (for edge of ledge) (long: 2m)



R54

Another <del>3</del> fine mess	25m	Spike traverse (R) bolt hang (L) spike deviation (pitchhead) (R) [bolt rebelay for climb would be useful.]
?	10m	bolt traverse (L) bolt hang (R)
handline	20m	bolt (R)
?	15m	bolt traverse (R) bolt hang (L)
?	20m 35m	large high spike traverse (L) spike traverse (R) bolt hang (L) large spike rebelay (R)
?	"	<del>2</del> bolt (L) spike (R) Y-hang.

Moon lizard Route

Giant's Hole	20m	2-bolt traverse (R,R) bolt hang (R)
? Lizard's Tail	40m	bolt traverse (L) bolt hang (L)
?	"	bolt hang (R)

Smegadrive Route

traverse Easy Carry	5m	2-bolt traverse (L,L)
handline (Down in the hollow)	15m	bolt backup (L) bolt hang (just below edge) (L)
handline (There we shall wallow)	40m	bolt (R)
Inglorious	"	2-bolt traverse (L,L) bolt hang (far R) (redundant bolt for Y-hang, R)
Mud	"	bolt (far wall)

Round the corner

Easy Casey II?	15m	large thread
Stone the Giants	35m	spike backup, bolt (L) thread (R) Y-hang
In their Brown Cars	"	bolt (R)



Small Spanish Boys  
?

20m

bolt traverse (L) bolt (L, U) (hang  
bolt rebelay (far wall)).



B56

Torca del Vasco Section I

Book Alex

Tape Paul

Instruments Paul

Set 1

Station	L	R	U	D	Tape	Compass	Climo
Flla = 1	←	0	↑	2			
↑					5.19	220	+17
2	0	→	↑	1			
↓					7.93	188	-41
3	←	0	↑	1			
↑					6.72	211	+12
4	1.2	0.3	0	1			
↓					5.68	278	-9
5	0.4	0	0.7	0.7			
↓					5.37	259	-5
6	0	0.9	0.3	0.5			
↓					2.60	278	+10
7	0.2	0.5	0	0.7			
↓					3.76	273	+5
8	0.5	0	0.1	1			
↓					3.34	286	+1
9	0	0.6	0.2	1.1			
↓					2.82	323	-28
10	0	0.6	0.4	0.4			
↓					3.52	306	+18
11	0.3	0.3	0	0.7/1.4			
↓					5.74	306	-20
12	2	0	1.8	1			
↑					1.10	008	-14
13	0.8	0.2	2	0			
↓					10.08	219	-25
14	0.8	0.7	2	0/1.2			
↑					7.78	051	+12
15	2	0	0.5/↑	2.4			
↓					6.40	302	-28
15a	1	0.5	↑	0			



Station	L	R	U	D	Tape	Compass	Climo
15							
↓					9.96	117	+17
16	0.1	0.6	0	0.8			
↑					<del>10.72</del> 9.96	<del>030</del> 117	+17 +32
17	0	1.8	0/1	1			
↓					<del>6.86</del> 10.72	<del>200</del> 030	+32 +16
18	0	2	0.8	1.3			
↑					<del>5.57</del> 6.86	<del>024</del> 206	+16 -5
19	0	1.6	0.3	1.2			
↓					<del>8.67</del> 5.57	<del>256</del> 024	-5
20	1.4	0.6	1.3	0.1			
↑					4.25	050	-4
21	0.6	1.2	1.3	0.2			
↓					8.42	181	+11
22	1.4	0	1	1.6			
↑					8.64	282	+5
23	0	1.6	0.8	1.4			
↓					3.53	103	-21
24	1.7	0	0.7	0.3			
↑					14.83	158	+24
25	1.7	0	0	1			
↓					6.77	227	-16
26	1.2	0.4	1.4	0			
↑					3.13	355	-50
27	1.4	0	0	1.2			
↓					6.30	230	-1
28	0	1.6	0.6	1.2			
↑					7.46	122	+36
29 = bolt	0	1.6	1	↓			
↓					11.07	357	-54
30	1.2	0/1	1	0.3			
↓					8.21	031	-45
31	1.5	0	1	0.1			



B59

Station	L	R	U	D	Tape	Compass	Climo
31	1.5	0	1	0.1			
↑					5.47	154	+27
32	0.2	2.2	0.6	0.3			
↑					5.42	219	+10
33	1.4	0	1.1	1.3			
↓					8.85	326	-32
34	0	1.6	0.6	1/4			
↑					9.07	217	+31
35	0/0.4	0.5/1.2	1.2	4.1			
↓					3.37	087	-30
36	1.6	0	1	1.6			
↑					10.23	178	+29
37	0	1.9	1.2	1.7			
↓					4.84	035	-9
38	1.7	0	0.7	0			
↑					9.69	168	+44
39	1.6	0.7	↑	1.8			
↓					3.83	040	-29
39a	0.3	0	0.3	0.9			
↓					1.49	342	-25
39b	0	0.5	0.3	0.4			
↓					2.12	057	-10
39c	0.2	0.7	0	0.53			
<hr/>							
39	1.6	0.7	↑	1.8			
↓					9.05	273	-9
40	0	1.4	0.3	1.2			
↓					2.55	010	-42
41	1.2	1	1.6	0.2			



Station	L	R	U	D	Tape	Compass	Clino
32	0.2	2.2	0.6	0.3			
↓					11.46	251	0
32a	1.7	0	1	0.8			
↓					3.50	289	0
32b	0.9	0	0	0.3			
<hr/>							
32	0.2	2.2	0.6	0.3			
↓					12.29	292	+11
32c	2	0	1.3	1.2/↓			
↑					8.47	055	-24
32d	0	2	1	1			
↓					11.47	301	+4
32e	1.5	0	2	1/↓			
↓					11.79	071	-19
32f	0	2.5	1.2	1.7/6			
<hr/>							
32	0.2	2.2	0.6	0.3			
↓					3.60	318	-32
32g = bolt	0.5	0	3	↓			
↓					6.21	/	↓
32h	1.3	0.5	↑	0			



660

Torca del Vasco Section J  
Book Alex Tape Paul  
Instruments Paul Set 1

Station	L	R	U	D	Tape	Compass	Climo
1	0	1.2	1.4	1.7			
↓					1.98	000	+3
2	0.4	0	1	2			
↓					2.38	027	-9
3	0.1	0.3	1.2	2.2			
↓					2.25	041	-31
4	0	0.4	1.5	1.4/1.9			
↓					2.04	079	-13
5	0.3	0	1.8	1.4/↓			
↓					2.80	023	-54
6	0.7	0	3	1.9			
↓					2.50	340	-2
7	0	0.5	1.1	2.1			
↓					1.48	348	-29
8	0	0.6	0.7	2			
↓					2.97	051	-36
9	0.7	0	2	1/↓			
↓					6.29	298	-42
10	0	0.9	3	1.8			
↓					5.62	027	-32
11	0	0.9	4	1.9			
↓					5.40	008	-48
12	0.1	0.8	3	2.2			
↓					8.21	035	-51
13	0	0.4	5	1.7			
↓					2.65	018	+8
14 = lower bolt of Y-hang	0	0.5	1	↓			
↓					9.65	—	↓
15	0.3	0	↑	0.2			



(361)  
END

Station	L	R	U	D	Tape	Compass	Clino
15	0.3	0	↑	0.2			
↑					1.54	210	-36
16	0.6	0.5	↑	1.1			
↓					5.72	351	-56
17	0.8	1.6	↑	0.8			