

TABLE OF CONTENTS  
THUR 9/26/13

PAGE	SAMPLE ID	Hb	%SAT	CO	MET <sub>SUBJECT</sub>	%SAT	[O <sub>2</sub> ]	CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	Lact	BE	PCV
1	X22-R-22-V	14.5	36.6	0.0	0.0	36.6	7.3	19.9	22	49	7.33	1.5	-0.8	45
2	X22-R-22-A	15.6	92.8	2.0	0.4	95.1	19.8	20.8	79	34	7.34	1.8	-3.6	44
3	X22-S-22-A	16.5	90.3	1.4	0.2	91.8	20.4	22.8	73	36	7.27	6.4	-9.6	48
4	X22-M-22-A	16.1	90.7	0.8	0.3	91.7	20.0	21.8	76	34	7.25	10.0	-11.3	47
5	X22-M-22-V	15.3	70.4	0.6	0.0	70.9	14.9	20.8	47	38	7.16	8.6	-14.4	46
6	X23-R-22-V	15.5	44.0	0.4	0.4	44.3	9.3	21.1	27	50	7.34	1.6	0.3	51
7	X23-R-22-A	15.9	92.9	0.4	0.3	93.5	20.3	21.7	71	36	7.40	1.2	-1.9	51
8	X23-S <sub>1</sub> -22-A	16.4	90.7	1.1	0.0	91.8	20.3	21.1	73	36	7.34	5.6	-5.6	49
9	X23-S <sub>2</sub> -22-A	15.9	91.6	1.2	0.0	92.7	19.9	21.5	74	32	7.34	6.4	-7.2	52
10	X23-M-22-A	16.9	91.0	1.4	0.2	92.5	21.0	22.7	74	34	7.32	8.4	-7.5	56
11	X23-M-22-V	16.0	77.6	0.0	0.4	77.9	17.0	21.9	51	43	7.22	9.1	-9.9	57
12	X24-R-22-V	14.3	53.0	0.2	0.0	53.2	10.4	19.5	30	49	7.36	1.2	1.4	46
13	X24-R-22-A	14.9	95.4	1.1	0.0	96.5	19.5	20.2	79	37	7.44	1.0	1.2	49
14	X24-S <sub>1</sub> -22-A	15.5	90.4	2.0	0.0	92.2	19.2	20.9	71	42	7.30	6.8	-5.5	50
15	X24-S <sub>2</sub> -22-A	15.5	91.9	0.2	0.0	92.1	19.5	21.2	71	42	7.28	8.1	-6.8	50
16	X24-M-22-A	15.8	90.1	1.8	0.0	91.8	19.5	21.3	71	42	7.26	9.3	-8.0	50
17	X24-M-22-V	16.3	79.4	0.1	0.2	79.6	17.7	22.2	51	41	7.23	7.4	-9.9	49
18	X25-R-22-V	16.7	34.7	0.2	0.7	35.0	7.9	22.7	22	56	7.33	1.1	-2.1	49
19	X25-R-22-A	16.1	92.0	2.2	0.0	94.1	20.3	21.5	74	37	7.41	0.7	-0.8	49
20	X25-S <sub>1</sub> -22-A	16.8	91.6	0.9	0.0	92.4	21.1	22.8	74	39	7.29	6.4	-7.3	50
21	X25-S <sub>2</sub> -22-A	17.0	91.8	0.8	0.0	92.6	21.3	23.0	76	39	7.26	8.0	-9.0	52
22	X25-M-22-A	17.2	91.4	1.2	0.0	92.4	21.5	23.3	76	38	7.24	9.1	-10.4	52
23	X25-M-22-V	17.1	61.4	0.9	0.0	62.0	14.4	23.3	42	66	7.06	12.4	-12.9	53
24	X26-R-22-V	13.2	39.9	1.0	0.0	40.3	17.2	18.0	25	52	7.33	1.0	0.5	47
25	X26-R-22-A	13.8	94.6	1.6	0.0	96.1	17.9	18.7	78	36	7.41	0.8	-1.4	47
26	X26-S <sub>1</sub> -22-A	15.4	91.9	2.8	0.0	94.6	19.4	20.5	75	36	7.34	4.8	-5.6	50
27	X26-S <sub>2</sub> -22-A	14.6	93.1	1.4	0.0	94.5	18.6	19.7	77	35	7.33	5.6	-6.6	49
28	X26-M-22-A	14.9	92.5	1.7	0.0	94.1	18.9	20.0	78	34	7.33	6.4	-7.0	51
29	X26-M-22-V	14.0	93.2	0.8	0.0	94.0	17.9	19.1	76	33	7.28	8.0	-10.1	51

## TABLE OF CONTENTS

BOOK

PAGE	SUBJECT	DATE
	All measured O <sub>2</sub> Saturat <sup>n</sup> IL - OPL COOXIMETER	

All measured PO<sub>2</sub>/PCO<sub>2</sub>/pH/lactate:

GFM 3000

30/130/75 SUBJECT X1 BACK ON 9/25/13 FOR OPT RE-TRY @ 2200m only

DAYTIME	STOPWATCH	WAITS	HR	SO <sub>2</sub>	ALT	EVENT/COMMENT	TARGET:
~0:28	2	Ø			2200	Rest	60W - 5min
	1'			71 98			150W - 2 min
	1'30"			64 98			180W - 2 m
Ø	2'	60W		68 96			200W - 1 min
1'	3'			105 98			
2'	4'			105 99			
3'	5'			109 99			
4'	6'			110 98			
5'Ø	7'	150W		122 98			
30"	7'30"			141 96			
1'	8'			143 96			
1'30"	8'30"			149 96			
2'Ø	9'	180W		153 94			
30"	9'30"			162 95			
1'	10'			165 93			
1'30"	10'30"			168 93			
2'	11'	200W		173 94			
30"	11'30"			175 93			
1'	12'00			178 94			

Stop

TITLE SUBJECT X1 HAN MALE PROJECT 9/21/13 HT 173cm WT 67.5kg 22  
BOOK PAGE

Continued from page

PB 585 T 18° RH 26%  
22°

DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT/COMMENTS
13:20			66	97	2200	ON TO VO <sub>2</sub> SYSTEM
5 13:33						Venous Sample #1
13:36			77	95		Arttrial Red
13:39	stop Ø	60	95	96		start Warmup 60w
13:	2 (5min)	105	95			
10	3		112	84		
	4		113	93		
	4'30"		117	96		
	5'	150	119	96		150w
	5'30"	2min	127	95		
15	6'		138	94		
	6'30"		145	93		
	7'	180	156	94		
	7'30"	2min	163	94		
	8'		167	93		
20	8'30"					start Art a) SUB MAX
	9'	210	173	94		
	9'30"	200 <sub>m</sub>	175	94		
	9'40"					Art a) MAX
25	13:49 10'					
	11'30"					↓ Venous sample #2
	17:00	100% O <sub>2</sub> bat				
	0	60w AIR	100	96		
	2'	180w AIR	120	95		
30	2'30"	180w O <sub>2</sub>	150	100		
	4'00"	210w O <sub>2</sub>	160	100		
	5'00"	225w O <sub>2</sub>	170	103		
	5'40"	STOP				

Pre-study Hb: 15.6 g/dl venous & rest 2200m, Net 42.3%

\* NO PHYSIOFLOW OF THIS WHOLE ROLL

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

**TITLE****SUBJECT**

X1 Blood gases PROJECT

2200M

- 2

Continued from page

IL - OPL oxmet2v

Bldgs Elect nodes

Sample	T-Hb	%O2Hb	%COHb	%methHb	sO2	Dact	Oacap	Po <sub>2</sub>	Pco <sub>2</sub>	pH	BE	LAC	HCT
X1-R-22V	16.7	92.0	0.0	0.5	42.2	9.6	22.7	26	45	7.32	-3.2	4.7	53
X1-R-22A	17.7	92.7	1.7	0.0	94.3	22.5	23.8	76	36	7.40	-1.9	0.8	55
X1-S-22A	18.1	90.0	1.0	0.2	91.1	92.3	24.5	71	33	7.30	-8.9	9.3	58
X1-M-22A	18.8	90.8	0.4	0.0	91.2	23.4	25.7	72	31	7.28	-10.6	13.7	58
X1-M-22V	18.1	26.1	0.0	0.0	26.1	6.5	24.9	21	64	7.15	-8.2	9.4	61

10

15

20

25

30

35

Continued to page

SIGNATURE

DATE

TITLE SUBJECT X2 HAN MALE PROJECT 9/21/13 HT 172 WT 54 AGE 20

BOOK PAGE

Continued from page

120/80 RT 22° 24% RH PB 583

DAYTIME	STOPWATCH	WATTS	HR	SP02	ALT	EVENT / COMMENTS
14:39:30	1'30"	Ø	109	96	2202	
5	2"					Art-BIG rest
	2'30"		109	94		Venous sample
	3"	Ø	112	95		
	4"		121	96		
10	→ 4'30	to 60W	139	96		
	5'		137	95		
	5'30"		156	94		
	6'		155	92		
	6'30"		160	93		
15	7'		167	94		
	7'30"		172	94		
	8'		170	92		
	8'30"		180	94		
	9'		177	92		
20	9'30	to 120W	188	95		
	10'		191	93		
	10'15	to 150W	195	94		Art-BIG to SUB MAX
	10:45	to 165W				
25	11:00		198	94		SUB
	11:45		201	94		Art-BIG <del>MAX</del>
	11:50	stop	202	95	V	Art-BIG <u>MAX</u>
	14:55	17:00				Venous post-MAX

100% O<sub>2</sub> study.

0'	60W	AIR	168	99	
2'	120W	O <sub>2</sub>	199	100	
3'	150W	O <sub>2</sub>	196	100	; 196 100
4'	165W	O <sub>2</sub>	198	100	stop at 4'20s

Pre-Study Hb at rest, venous 15.1 g/dl, 41.1% HCT

Physioflow working now

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

**TITLE** SUBJECT X2 OXIMETRY PROJECT **BLOOD GASES** (2200 M)

Continued from page

SAMPLE	[Hb]	%O <sub>2</sub> Hb	%O <sub>2</sub> Hb	%MET	Sat% [O <sub>2</sub> ]	O <sub>2</sub> CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	BE	LACT
X <sub>2</sub> -R-22V	15.3	58.8	0.0	0.0	58.8	12.3	21.0	31	42	7.41	1.6
X <sub>2</sub> -R-22A	17.5	91.7	0.6	0.0	92.2	22.0	23.8	71	36	7.45	1.4
X <sub>2</sub> -S-22A	17.7	92.0	0.0	0.1	92.1	22.3	24.2	75	34	7.33	-6.9
X <sub>2</sub> -M-22A	18.0	89.4	0.0	0.0	89.4	22.1	24.7	68	36	7.29	-8.4
X <sub>2</sub> -M-22V	16.1	24.5	0.0	0.4	24.6	5.4	22.0	19	57	7.22	-5.4

10

15

20

25

30

35

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

TITLE X3 SUBJECT HAN MALE PROJECT HT 170 WT 67 Kg Age 21 134/80  
 BOOK PAGE

Continued from page

PB 582 multigas 22°C 24% RH

	DAY TIME	STOPWATCH	WATTS	HR	SPO2	ALT	EVENT / COMMENT
15:20							Venous sample
15:32	0	0		97	98	(2200)	
5	1'			101	99		
	1'30"			99	99		
	1:47'						Art. sample Rest
15:34	2'			92	97		
10	2'30"			108	98		
	3'			109	100		
	3'30"			110	100		
	4'			108	98		
	4'30"			111	99		
15	5'	60W		111	99		
	5'30			122	96		
	6'			125	96		
	6'30"			126	97		
15:40	7"			131	96		
20	7'30"			140	96		
	8'			141	95		
	8'30"			140	95		
	9'			149	96		
	9'30"			154	96		
25	10'	150W		172	96		
	10'30"			174	94		
	11'			182	94		
	11'15'			193	95		Art sample SM
	11'30"			201	95		
30	12'00			203	96		
	12'30"			203	95		Art sample MAX
15:45	13'00	STOP		203	95	V	
15:47	15:30"						Venous sample
35	100% O <sub>2</sub> Stop 0"	60W AIR		133	93		
	2'	150W O <sub>2</sub>		165	99		
	(2) 1'	165W O <sub>2</sub>		176	99	; 187.99	
	4'	180W O <sub>2</sub>		195	100	; 197.100	Stop 4. 45

DATE

Continued to page

SIGNATURE

Pre Study Venous Hb 14.9 g/dl Net 40.2%

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

**TITLE SUBJECT X3 OXIMETRY PROJECT BLOOD GASES**

**2200 M**

Continued from page	[Hb]	%O <sub>2</sub> Sat	O <sub>2</sub> % MET%	SO <sub>2</sub> %, [O <sub>2</sub> ]	O <sub>2</sub> CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	BE	LACT	Hct	
X <sub>3</sub> -R-22V	15.0	51.6	0.0 0.0	51.6	10.6	20.5	28	42	7.40	0.9	1.9	49
X <sub>3</sub> -R-22A	15.5	94.6	0.1 0.5	95.1	20.1	21.1	83	30	7.47	-0.7	1.4	51
X <sub>3</sub> -S-22A	15.9	93.3	0.0 0.0	93.3	20.3	21.8	76	29	7.36	-7.5	-	52
X <sub>3</sub> -M-22A	17.4	92.4	0.1 0.2	92.6	22.0	23.0	77	28	7.32	-9.9	13.0	54
X <sub>3</sub> -M-22V	15.7	47.2	1.1 0.0	47.7	10.1	21.3	31	44	7.21	-10.1	10.0	53

10

15

20

25

30

35

Continued to page

SIGNATURE

DATE

TITLE SUBJECT X4 HAN MALE 9/21/13 PROJECT PB 581, 22°C 24% RH  
 Continued from page wt 74 HT 175 Age 22 1/16/88  
 DAYTIME STOPWATCH WATTS HR SPO<sub>2</sub> ALT EVENT / COMMENT  
 16:10 Rest Venous sample  
 16:15 0' Rest 82 94 2200  
 1' 81 96  
 1'30" 79 97  
 2' 81 97  
 2'30" 78 96  
 3' 83 97  
 3'30" 77 96 Rest Art. sample  
 4' 81 96  
 4'30" 88 98  
 5' 60W 94 96  
 16:20 5'30" 106 97  
 6' 106 95  
 6'30" 108 96  
 7' 109 96  
 7'30" 111 97  
 8' 117 97  
 8'30" 112 97  
 9' 114 97  
 9'30" 115 97  
 10' 150W 122 97  
 10'30" 134 96  
 11' 141 95  
 11'30" 150 96  
 12' 153 95  
 12'30" 156 93 ← Art - SM.  
 13' 162 95  
 13'30" 165 96  
 13'45"  
 14'00" 180W ← Art - SM.  
 14'30" 170 96  
 16:30 15'00 STOP V 14'40" Art sample M at stop  
 35 venous sample  
 Prestudy venous Hb 14.9 g/dl Het 40.4% Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

BOOK

PAGE

TITLE SUBJECT X4

PROJECT

Continued from page

100% O<sub>2</sub> at 2200m

TIME 14:00

HR Sat

116 92

60W AIR

0'

2'

150W O<sub>2</sub>

3'

165W O<sub>2</sub>

3:40

180W O<sub>2</sub>

4:40

195W O<sub>2</sub>

5:05

STOP

137 100

150 100

160 100

166 100

5

10

20

25

30

35

## X4 OXYMETRY + BLOOD GASES

SAMPLE	[Hb]	Hb Sat	O <sub>2</sub> % MET%	SO <sub>2</sub> %	{O <sub>2</sub> } O <sub>2</sub> CAP	P <sub>O<sub>2</sub></sub>	Pco <sub>2</sub>	pH	BG (mg)
X4-R-22V	15.3	99.2	0.8 0.0	39.5	8.2 20.7	24	50	7.39	4.1 -
X4-R-22A	14.8	92.0	1.3 0.0	93.2	18.7 20.1	72	37	7.45	1.9 0.5
X4-S1-22A	16.4	90.7	1.5 0.0	92.1	20.4 22.1	72	37	7.39	-2.7 7.3
X4-S2-22A	16.1	91.3	1.2 0.0	92.4	20.1 21.8	73	36	7.37	-3.8 9.0
X4-M-22A	16.6	91.4	1.0 0.0	92.3	20.8 22.5	75	30	7.36	-7.0 11.6
X4-M-22V	16.3	74.0	0.9 0.0	74.7	16.5 22.1	46	41	7.32	-4.8 8.4

SIGNATURE

DATE

Continued to page

TITLE SUBJECT X2 HAN MALE

PROJECT 9/21/13 PB: 445 RT: 22 °C RH: 29%

BOOK PAGE

Continued from page

120/20

	DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT/COMMENT
19:50						4200	Rest
5	1'			116	83		
	1'30"			127	82		
	2'00			121	83		
	2'30"			113	83		
	3'00			114	81		
10	3'30"			117	81		Art Sample
	→ 4'30"	60W		120	83		
19:55	5'00			169	84		
	5'30"			167	82		
	6'00			172	81		
	6'30"			175	86		
15	7'00			176	78		
	7'30			177	79		
	8'00	105W					
	→ 8'30"	120W		185	80		
	9'00			188	76		
20	9'30"			192	80		
20:05	10'00			193	76		
	10'30"	Stop/quit!	105W	177			Art Blg 1
							Art Blg 2

	SAMPLE	Hb	%SAT	CO	MET	SO <sub>2</sub> /[O <sub>2</sub> ]	O <sub>2</sub> CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BE	HCT	
25	X2-R-42-A	16.0	80.1	2.0	0.0	81.7	17.5	21.5	51	36	7.44	1.9	0.7	49
	X2-S-42-A	17.3	76.0	1.6	0.0	77.2	18.0	23.3	47	30	7.40	8.7	-4.8	52
	X2-M-42-A	18.7	76.9	1.9	0.3	78.5	19.7	25.1	48	29	7.40	9.6	-5.2	53

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE

PROPRIETARY INFORMATION

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT / COMMENT
20:16	0	0		117	87	4200	Rest
	30"			120	88		
5	1'			120	86		
	1'30"			120	86		Art sample
	2'00			115	87		
	2'30"			118	87		
10	3'00	60W		127	87		
	3'30"			134	85		
	4'00			136	81		
	4'30"			136	82		
15	5'00			145	82		
	5'30"			152	82		
	6'00"			159	82		
	6'30"			165	84		
20	7'00	120W		170	84		
	7'30"			176	81		
	8'00"			182	81		
	8'30"						Art S MAX
	9'00		189, 79				
	9'20	Quit					V Art sample ~ 29'15"

	SAMPLE	Hb	%SAT	CO	MET	90 <sub>2</sub> S [O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	lact	BE	HCT
25	X3-R-42-A	15.0	86.2	0.4	0.0	86.5	17.7	20.4	55	29	7.47	2.3	-1.4
	X3-S-42-A	16.2	78.6	0.9	0.0	79.3	17.5	22.1	48	27	7.41	8.6	-5.8
	X3-M-42-A	16.2	79.4	1.3	0.0	80.4	17.6	21.9	61?	26	7.39	9.9	-7.4

USING 51 This is clearly wrong of saturation

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE

PROPRIETARY INFORMATION

TITLE SUBJECT X4 HAN MALE

9/21/13 PROJECT PB 445 RT:22% RH% 32%

BOOK

PAGE

Continued from page

116/88

DATETIME	STOPWATCH	WATTS	HR	SPO2	ACT.	EVENT/COMMENTS	
						4200	Rest
20:39	0	0	91	75			
5	30"		94	76			
	1'		93	77			
	1'30"		94	78			
	2'00"		92	76			
10	2'30"		92	75			
	3'00"		96	76			
15	→ 3'30"	60W	108	78			
	4'00"		113	80			
	4'30"		118	78			
20	5'00"		124	76			
	5'30"		126	77			
	6'00"		125	75			
25	→ 6'30"	135W	121	75			
	7'00"		139	73			
	7'30"		149	74			
	8'00"		153	71			
30	8'30"		157	73			
35	8'50"	158W	162	79			
	9:15"	stop quit					

↓ just before stop: Art sample

SAMPLE	Hb	%SAT	CO	MET	%SAT [O <sub>2</sub> ]	CAP.	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	lact	BE	HCT
X4-R-42-A	15.3	76.5	1.4	0.0	77.6	16.0	20.7	44	36	7.46	1.8	2.0
X4-S-42-A	16.0	72.9	1.4	0.0	73.9	16.0	21.7	43	35	7.42	6.5	-1.2
X4-M-42-A	16.0	76.7	1.5	0.0	77.9	16.8	21.5	45	33	7.42	6.9	-2.1

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE
PROPRIETARY INFORMATION	

TITLE

PB 584

PROJECT

RT 22°

RH 29%

Continued from page

"BIOLOGICAL CAL" OF VO<sub>2</sub> SYSTEM

L1, Age 27 ht 163 wt 53 Kg HAN male

5	9/22/13 SUNDAY	9/23/13 MONDAY
	9:34am VO <sub>2</sub>	9:38am VO <sub>2</sub>
	Start 0W 0"	0'
	Start 30W 4'	4'
	Start 60W 7'	7'
10	Start 90W 10'	10'
	Start 120W 13'45"	14' (stopped) at 90W
	FND 120W 15'5"	-

DISCONTINUED AFTER 2  
DAYS (9/22 + 9/23)

SUBJECT DID NOT WANT TO.

15 HARRIETH WAGNER BECAME BIOL. CAL Subj

EVERY DAY IN MORNING:

September 23 ✓ Mon

Rest 3'

30W 3'

60W 3'

90W 3'

120W 3'

150W 3'

} ON AIR @ 2200 M

" 24 ✓ Tue  
" 25 ✓ Wed  
" 26 ✓ Thur  
" 27 ✓ Fri  
" 28 ✓ Sat  
" 29 Sun

25

30

35

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

TITLE X1 - HAN MALE

9/21/13 PROJECT PB 445 RT 22 RH% 32

146/88

Continued from page

DAY/TIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT / COMMENTS
21:02	0	0	97	78	(4200m)	Rest
5	30'		87	82		
1			91	80		
1'30"			93	79		
2'00"			93	77		
2'30"			87	78		
3'00"			92	79		
3'30"			93	75		
4'00			98	75		Art sample & Rest ABG
5'00	<del>5'00</del>	<del>60W</del>	98	77		
→ 5'00	60W	126	76			
5'30"		128	80			
6'00		124	77			
6'30"		124	76			
7'00"		126	73			
7'30"		130	77			
→ 8'00	135W	140	76			
8'30"		145	72			
→ 9'00"	150W	150	69			
9'30"		154	69			
10'00"		158	66			
10'30"		162	68			ABGs BgS false
10:50	165W	164	68			ABGm BgS false just before stop
11:15	Stop					↙ ↘

(N<sub>2</sub>) %O<sub>2</sub> CO met O<sub>2</sub>S% [O<sub>2</sub>] O<sub>2</sub>cap PO<sub>2</sub> PCO<sub>2</sub> pH lactic BE HCT

X1-R-42-A 15.7 77.4 1.4 0.0 78.5 16.7 21.3 45 36 7.45 1.7 1.3 51

X1-S-42-A 16.2 79.7 0.0 0.5 80.1 17.7 22.0 43 30 7.41 8.2 -4.2 53

X1-M-42-A 17.5 71.7 1.4 0.0 72.7 17.2 23.7 42 31 7.40 9.7 -4.3 54

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

- 16

9/22/13 START SUNDAY

BOOK PAGE

PAGE

**TITLE SUBJECT X5 HT: 170.5 WT 55 Age 29 PROJECT PB: 584 RT: 21 RH% 29**

Continued from page HAN MALE ~~Ward~~

~~100~~ 100/80

DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT/COMMENTS
11:11	0	0	97	97	2200	Rest
5	30"		93	96		
1'			94	95		
1'30"			104	95		
2'			101	95		
2'30"			101	94		Venous sample & Rest
3'			101	94		
10	3'30"		102	94		
4'			103	97		
15	4'30"		97	94		
5'			97	95		
16	5'30"		98	95		
6'			105	95		
17	6'30"		106	95		
7'			98	96		
18	8'		105	96		
19	9'		104	94		
20	10'		103	95		
21	10'30"					Rest Arterial sample taken
22	12'		111	95		
23	→ 13'	60W	102	91		
24	13'30"		123	96		
25	14'		127	100		
26	14'30"		141	96		
27	15'		145	96		
28	16'44'	←				
29	17'	120W	178	96		
30	18'30"		183	95		
31	19'00"		188	95		
32	19'30"		191	96		
33	20'		192	97	↓	Art blood gases
34	20:15 stop				↓	Art blood gas, Venous sample
35	Need to repeat this run (No more ABG)					
	after a rest					
SIGNATURE					DATE	Continued to page

**SIGNATURE**

DATE

|Continued to page

Continued from page

Repeat 2200m run on X5

5 mi @ 60W 2 mi @ 120W NO ABG - just  
VOR + QT because QT failed on prior run

DAY/TIME	STOPWATCH	WATTS	HR	SPO2	ALT	EVENT/COMMENT
13:34	0					Rest
	30"		114	94		
	1'		117	94		
	1'30"		113	95		
	2'		111	95		
	2'30"		111	95		
	→ 3'	60W	128	95		
	3'30		142	95		
	4'		145	95		
	4'30"		151	95		
	5'		152	95		
	5'30"		159	96		
	6'		163	96		
	6'30"		165	96		
	7'		165	96		
	7'30"		169	96		
	8'	120W	173	96		
	8'30"		177	96		
	9'		181	96		
	9'30"		184	96		
	10'00"		185	95		
	10'05" stop					

QT worked normally this run

Continued to page

SIGNATURE		DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE	PROPRIETARY INFORMATION

- 18

BOOK

PAGE

9/22/13

PB 583 RT 22°C RH 30%

TITLE SUBJECT X6 HAN MALE PROJECT HT 172 WT 55Kg AGE 23

Continued from page

DAYTIME	STOMACH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT / COMMENT
11:50	Ø		105	98	2200	Rest
5	30"		91	97		Venous & Rest
	1'		90	98		
	1'30'		91	98		
	2'		95	97		
	2'30"		90	97		
10	3'00"		99	99		
	3'30"		95	98		
	3'44'					test Arterial b/g
	4'00		97	97		
	4'30"		94	97		
15	5'0"	60W	116	98		
	→ 5'30"		120	97		
	6'00		117	96		
	6'30"		121	95		
	7'00"		127	96		
	7'30"		134	96		
20	8'00"		132	97		
	8'30"		140	96		
	9'00		141	95		
	9'30"		146	96		
	10'00"		151	97		
25	10'30	120W	156	95		
	11'00"		164	94		
	11'30"		172	92		
	12'00"		178	93		S Art sample
	12'30"		182	96	✓	M Art sample
30	12:45		Stop quit - could not continue			Venous blood sample

35

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

TITLE SUBJECT X7 HAN MALE

PROJECT HT 1665 WI 64 AGE 23

Continued from page

DAY/TIME	STOPWATCH	WAITS	HR	SPO2	ALT	EVENT / COMMENT
12:20						Venous sample
12:30	0	0	90	95	2200	
5	30"		91	93		
	1'		79	96		
	1'30"		94	93		
	2'		95	94		
10	2'30"		92	93		
	3'		92	93		rest Arterial Blg
	3'30"		88	94		
	4'	flow	90	93		
15	→ 4'30" ↓		1			
	5'		114	94		
	5'30		118	93		
	6'		112	93		
	6'30"		124	96		
20	7'		127	97		
	7'30"		130	96		
	8'		134	94		
	8'30"		141	94		
	9'		145	94		
	9'30		147	95		
25	9'45" 120W					
	10'15"		156	95		
	10'45"		163	94		
	11'15"		172	93		11:30 Arterial Sample
	11'45" ←		172	93		
30	12'00	135W	178	92		
	12'15		182	93		
	12'40					Arterial sample as he quit!
	13'00 stop-quit					
35	13:45					Venous sample

Continued to page

SIGNATURE		DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE	PROPRIETARY INFORMATION

- 20

BOOK

PAGE

**TITLE SUBJECT X8**

HAN MALE **PROJECT**

9/22/13

PB 583 RT 23°C RH 30%

Age 22 HT 171 WT 54 Kg

Continued from page

DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT / COMMENT
13:02					2200	Venous sample @ Rest
13:06	0		79	100		
	30'		87	96		
	1'		78	94		
	1'30"		74	100		
	2'		70	94		
10	2'30"		76	96		
	3'		74	96		
	3'30"		67	94		
15	→ 4'	60W	96	90		
	4'30"		97	90		
	5'		109	94		
	5'30"		117	92		
	6'		114	94		
	6'30"		123	94		
20	7'		126	96		
	7'30		124	95		
	8'		131	95		
	8'30"	90W	129	92		
	9'		134	93		
25	9'15"	105W	147	95		
	9:45"		156	95		
	10:15		158	94		
	10:40	120W	166	96		
	11:10		179	94		
30	11:25		180	94		Art sample before stop
	13:18	11:30	stop			
	13:22				↓	Venous Sample
35						

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Continued from page

Xining time : 14:18 previous Air max = 120W

Time Watts Condition HR SP02

Time	Watts	Condition	HR	SP02
0:00	0W	Air	92	96
0:30	60W	Air	115	94
1:30	60W	Air	127	93
2:00			135	94
2:30			135	95
3:00			135	94
3:30			139	95
3:45	start 120W			
	O2 on		145	95
4:15			151	100
4:45	start 135W O2	160	100	
5:15			168	100
5:45	start 150W O2	173	100	
6:15	stopped - could not continue			

SUBJECT X7 HAN MALE

Xining time : 15:00 previous air max = 120W

Time Watts Condition HR SP02

Time	Watts	Condition	HR	SP02
0:00	Rest	Air	92	96
0:30	60W	Air	112	92
1:00			116	93
1:30			115	91
2:00			117	91
2:30	start 105W	Air	135	89
3:00	105W O2			
3:30			145	95
4:00	start 120W O2	155	97	
4:30			160	97
5:00	subject could not continue			
	* smokes 5 cigarettes/day			

SUBJECT X8 HAN MALE

Xining time : 14:40 previous air max = 120W

Time Watts Condition HR SP02

Time	Watts	Condition	HR	SP02
0:00	Rest	Air	100	90
0:00	start 60W	Air	112	92
0:30			116	93
1:00			115	91
1:30			117	91
2:00			125	89
2:30	start 105W	Air	135	89
3:00	105W O2			
3:30			145	95
4:00	start 120W O2	155	97	
4:30			160	97
5:00	subject could not continue			

SUBJECT X5 HAN MALE

Xining time : 15:19 previous air max = 120W

Time Watts Condition HR SP02

Time	Watts	Condition	HR	SP02
0:00	Rest	Air	121	97
0:30	60W	Air	122	97
1:00			125	96
1:30			131	96
2:00			140	94
2:30			140	96
3:00	start 120W O2	146	96	
3:30			159	100
4:00	start 135W O2	167	100	
4:30	<del>start 150W O2</del>	172	100	
5:00	start 150W	160	100	
5:30			162	100
5:40	subject could not continue			

Continued to page

SIGNATURE

ALL ABOVE ARE 100% O<sub>2</sub> STUDIES

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

9/22/13 (2200m) Blood gas data

## TITLE

## PROJECT

Continued from page

(X5)

SAMPLE	Hb	%O <sub>2</sub> SAT	CO	MET	%O <sub>2</sub>	{O <sub>2</sub> }	CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	B <sub>et</sub>	B <sub>ER</sub>	HCT
--------	----	---------------------	----	-----	-----------------	-------------------	-----	----------------------------	-----------------------------	----	-----------------	-----------------	-----

X5-R-22-V	17.5	87.9	0.3	0.3	88.4	21.1	23.9	54	38	7.41	1.5	-0.3	55
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X5-R-22-A	17.2	91.4	1.2	0.2	92.7	21.6	23.3	70	35	7.42	1.5	-1.1	57
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X5-S-22-A	18.4	92.8	0.5	0.2	93.4	23.3	25.0	78	33	7.30	12.2	-8.9	60
-----------	------	------	-----	-----	------	------	------	----	----	------	------	------	----

X5-M-22-A	19.2	93.1	0.3	0.0	93.5	24.5	26.2	79	30	7.29	13.4	-10.5	61
-----------	------	------	-----	-----	------	------	------	----	----	------	------	-------	----

X5-M-22-V	16.6	56.8	1.5	0.0	57.7	12.9	22.4	36	46	7.23	9.5	-8.4	59
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

(X6)

X6-R-22-V	15.5	63.6	0.7	0.0	64.0	13.5	21.1	35	46	7.34	1.3	-1.4	51
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X6-R-22-A	16.7	92.9	0.2	0.0	93.2	21.2	22.8	71	38	7.38	0.6	-2.3	52
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X6-S-22-A	17.6	90.0	1.0	0.0	90.9	21.6	23.8	69	38	7.29	6.3	-7.6	53
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X6-M-22-A	16.9	91.5	0.6	0.0	92.1	21.2	23.0	71	35	7.28	7.5	-9.3	55
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X6-M-22-V	16.6	91.7	1.1	0.0	92.7	20.9	22.5	74	31	7.25	9.3	-12.2	54
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	-------	----

(X7)

X7-R-22-V	18.5	69.8	1.8	0.1	71.1	17.7	24.9	39	42	7.39	1.1	0.2	54
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	-----	----

X7-R-22-A	18.6	91.5	0.5	0.3	92.2	23.3	25.3	70	36	7.42	0.8	-0.6	56
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X7-S-22-A	18.9	90.5	0.8	0.0	91.2	23.4	25.7	70	35	7.34	6.4	-5.9	58
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X7-M-22-A	19.1	89.3	0.6	0.0	89.9	23.3	26.0	68	34	7.32	8.6	-7.4	59
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X7-M-22-V	17.9	89.4	1.8	0.0	91.0	22.0	24.1	71	33	7.29	9.1	-9.4	59
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

(X8)

X8-R-22-V	15.7	82.8	0.7	0.0	83.4	17.8	21.4	51	37	7.40	2.2	-1.5	48
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X8-R-22-A	15.8	93.9	1.1	0.0	94.9	20.3	21.4	80	34	7.42	2.1	-1.7	48
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X8-S-22-A	15.5	93.5	0.5	0.3	94.2	19.8	21.1	80	35	7.37	4.9	-4.3	50
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X8-S2-22-A	17.1	92.5	1.2	0.1	93.7	21.7	23.1	79	37	7.37	6.6	-4.6	52
------------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X8-M-22-A	16.5	91.9	1.1	0.0	92.8	20.7	22.3	76	34	7.32	9.0	-7.6	52
-----------	------	------	-----	-----	------	------	------	----	----	------	-----	------	----

X8-M-22-V	16.6	91.9	1.0	0.1	93.0	21.0	22.5	76	28	7.30	10.9	-10.9	53
-----------	------	------	-----	-----	------	------	------	----	----	------	------	-------	----

2200m ↑

25

30

35

Continued to page

SIGNATURE

DATE

TITLE SUBJECT X6 HAN MALE PROJECT HT 172 WT 55 AGE 23

BOOK

PAGE

Continued from page

	DAY	TIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT / COMMENT
1	28		0	0	91	76	(4200)	Rest
5		30"			93	80		
		1'			89	80		
10		1'30"			95	78		
		2'00"			95	78		
15		2'30"			90	79		Art sample D Rest
		3'			91	80		
20		3'30"			94	80		
		→ 4'	60W		118	80		
		4'30"			122	78		
		5'			127	74		
25		5'30"			133	74		
		6'			140	76		
		6'30"			143	77		
		6'45						
		→ 7'	90W		151	76		
		7'30"			156	75		
30		8'			165	76		
		8'30"						S <sub>1</sub> Art sample at SUB M
		8'45"	105W					S <sub>2</sub> Art sample at SUB M
		9'			173	77		
35		9'30	120W		181	77	~	Art sample ~ 9:50 D MAX
		10'00	stop					

SAMPLE	Hb	O <sub>2</sub> sat	CO	MET	%O <sub>2</sub>	[O <sub>2</sub> ]	CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	lac	BE	Hct
X6-R-42-A	15.7	79.3	0.4	0.0	79.7	17.1	21.5	46	38	7.40	1.1	-1.0	46
X6-S <sub>1</sub> -42-A	16.3	76.0	1.5	0.0	77.1	16.9	22.0	45	36	7.36	5.4	-4.5	47
X6-S <sub>2</sub> -42-A	16.5	77.5	0.0	0.1	77.6	17.6	22.6	47	35	7.36	6.4	-4.9	50
X6-M-42-A	16.4	76.7	0.0	0.3	77.1	17.3	22.5	46	33	7.34	7.5	-6.8	52

Continued to page

SIGNATURE		DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE	PROPRIETARY INFORMATION

- 24

PB 443

9/22/13

BOOK PAGE

TITLE SUBJECT X7 HAN MALE PROJECT HT 166.5 WT 64 KG AGE 23

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	SPO2	ALI	EVENT	COMMENT
16:54		0		110	83	4200m	Rest	
5		30"		112	84			
		1'		110	84			
		1'30"		113	87			
		2'		110	83			Art Sample & Rest
		2'30"		111	85			
		3'		113	85			
10	→	3'30"	60W	122	83			
		4'		129	86			
		4'30"		138	81			
		5'		145	81			
15	16:59	5'30"		149	83			
		6'						
		6'30"	90W	154	80			
		7'		168	80			
		7'30"		162	79			
20		8'	105W				7'45"	Art Sample SUB MAX
		8'30"		170	77		8'15"	Art sample & MAX
		8'40"	stop					

	SAMPLE	Hb	%SO <sub>2</sub>	CO	MET	%O <sub>2</sub> sat [O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	last BE	Hct
25	X7-R-42-A	18.0	81.9	0.6	0.2	82.5	20.2	24.5	49	35	7.44	1.2 0.2 57
	X7-S-42-A	18.1	75.6	0.5	0.1	76.1	18.7	24.6	44	34	7.40	5.8 -2.8 57
	X7-M-42-A	18.2	75.5	0.6	0.1	76.0	18.8	24.8	44	34	7.39	6.5 -3.4 57

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

10443

**TITLE SUBJECT X8 HAN MALE PROJECT HT 171 WT 54Kg Age 22**

BOOK

PAGE

Continued from page

DAYTIME	STOPWATCH	WATTS	HR	SP02	ALT	EVENT / COMMENT
17:15	0	0	89	90	(4200)	Rest
5	30"					
10	1'30"		92	92		
15	2'		93	91		
20	2'30"		91	95		
25	4' → 3'	60W	90	92		
30	3'30"		106	93		
35	4'		128	88		
40	4'30"		125	88		
45	5'		132	89		
50	5'30"		135	88		
55	→ 6'	90W	140	87		
60	6'30"		145	90		
65	7		156	87		
70	7'30"		162	89		Art sample at SMTHX
75	8'	105W				
80	8'30"		173	89		Art sample at MAX
85	17:24 8'45	stop - quit could not continue				

SAMPLE	Hb	%SO <sub>2</sub>	CO MET	%SO <sub>2</sub>	[O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BE	Hct
X8-R-42-A	15.5	86.4	1.1	0.0	87.4	18.4	21.0	55	33	7.47	0.9	1.0
X8-S-42-A	15.9	84.6	0.8	0.0	85.2	18.4	21.6	53	32	7.42	5.3	-2.7
X8-M-42-A	16.5	83.0	1.5	0.3	84.5	18.7	22.2	53	32	7.41	6.5	-3.3

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

END 9/22/13 SUNDAY 9/22/13 PB 441 RT 23 RT 27%  
 - 26  
 BOOK PAGE  
 TITLE X5 SUBJECT HAN MALE PROJECT HT 170 WT 55K AGE 23

Continued from page

	DAYTIME	STOPWATCH	WAITS	HR	SPO <sub>2</sub>	ALT	EVENT/COMMENTS
17:55		0	0	100	85	4200	Rest
5		30	103	103	85		
		1'		99	86		
		1'30"		103	86		
		2'		99	86		2'15" Rest ABG
		2'30"		103	84		
10	→	3'	60W	101	81		
		3'30		118	83		
		4'		132	80		
		4'30"		139	81		
		5'		147	80		
15	←	5'30"		151	81		
		6'	90W	158	81		
		6'30"		163	82		
		7'		171	82		
		7'30"		175	81		ABG SMAx
20		8'	105W	179	83		
		8'30"	120W	182	81		
		9'		184	83		ABG 9'10" O <sub>2</sub> MAX
25	18:04	9'20'	Stop	Subject unable to continue			

	SAMPLE	Hb	%SO <sub>2</sub>	CO	MET	%SAT [O <sub>2</sub> ] CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BE	HCT
25	X5-R-42-A	16.8	80.9	0.8	0.2	81.7	18.6	22.8	48	33	7.45	1.3 -0.2 54
30	X5-S-42-A	17.6	80.3	1.0	0.2	81.4	19.4	23.8	50	31	7.40	6.7 -4.2 57
35	X5-M-42-A	18.1	81.6	1.0	0.0	82.3	20.2	24.5	51	29	7.38	8.9 -6.2 58

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

TITLE X9 FEMALE HAN

PROJECT #157, WT 49kg AGE 21

BOOK

PAGE

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT / COMMENT
11:35	0	0		98	98	2200	
	30"			93	93		Rest
5	1'			92	92		
	1'30"			99	91		
	2'			93	95		
	2'30"			99	92		
10	3'			97	94		Art big. taken & Rest
	3'30"			91	92		
→	4'	45W		125	94		
	4'30"			124	93		
	5'			124	96		
15	5'30"			129	94		
	6'			134	94		
	6'30"			135	94		
	7'			133	96		
	7'30"			138	95		
20	→ 8'	90W		144	98		
	8'30"			150	97		
	9'			157	97		
	9'30"			166	96		Art sample @ 9'15"

11:45 10' stop

	SAMPLE	Hb	Sat	CO	Met	SO <sub>2</sub>	[O <sub>2</sub> ]	CAP	Po <sub>2</sub>	PCO <sub>2</sub>	pH	Lact	BE	HCT
25	X9-R-22-V	15.2	55.8	0.0	0.0	55.8	11.6	20.8	33	45	7.29	6.9	-5.0	47
	X9-R-22-V	14.2	60.9	0.0	0.1	61.0	11.9	19.5	36	41	7.30	7.1	-5.9	48
	X9-R-22-A	14.5	92.4	0.6	0.0	93.0	18.4	19.8	74	35	7.44	0.9	0.1	46
	X9-S-22-A	15.6	94.1	0.0	0.0	94.1	20.1	21.4	81	34	7.36	7.7	-5.4	47
	X9-M-22-A	15.0	93.4	0.4	0.0	93.8	19.1	20.4	79	33	7.36	8.5	-5.8	48
30	X9-M-22-V	12.8	89.4	0.0	0.0	89.4	15.7	17.6	60	33	7.41	3.8	-3.0	42

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

BOOK PAGE  
TITLE X10 HAN FEMALE

9/23/13

PROJECT PB 586

23°C 6%

HT 159.5 WT 56 Age 22

Continued from page

HR 50<sub>2</sub>

ALT

(220)

EVENT/COMMENTS  
Venous d/ Post

VENOUS

Art. sample d/ rest

DAYTIME	STOPWATCH	WATTS	HR	S <sub>O</sub> <sub>2</sub>	ALT	EVENT/COMMENTS
12:15	0	0	61	95	(220)	Venous d/ Post
	1		88	96		
5	1'30"					
	2'		85	94		
→	2'30"	45W				
	3'		110	96		
①	3'30		109	93		
10	4'		115	93		
②	4'30		119	93		
	5'		120	94		
③	5'30		123	94		
	6'		121	94		
15	6'30	90W	122	99		
30"	7'		131	93		
① →	7'30	105W	141	93		
30"	8'		143	93	S	art sample 8'15"
②	8'30	120W	150	93	M	art sample 9'15"
20	30'	9'	157	93		
1' (12:26)	9'30	stop/gut	166	94		

post-exercise Venous sample

SAMPLE ID	Hb	%SAT	CO	MET	%SAT [O <sub>2</sub> ] CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	lact	BE	HCT
X10-R-22-V	13.4	54.8	0.0	0.1	54.8	10.0	18.3	31	52	7.33	1.8
25 X10-R-22-A	14.3	95.0	0.0	0.0	95.0	18.5	19.5	77	36	7.43	1.4
X10-S-22-A	14.7	91.9	0.0	0.0	91.9	18.5	20.1	72	40	7.32	5.6
X10-M-22-A	14.8	91.9	0.0	0.0	91.9	18.6	20.2	73	38	7.31	5.2
X10-M-22-V	14.4	81.7	0.2	0.0	81.9	16.1	19.6	53	37	7.29	6.6
											47

Continued to page

SIGNATURE

DATE

Continued from page

DAY/TIME	STOPWATCH	NATTS	HR	S <sub>O</sub> <sub>2</sub>	ALT	EVENT/COMMENT
12:51				2200		Rest venous sample
12:58	0			96	98	
5	30"			91	97	
	1'			82	96	
	1'30"			87	96	
	2'			85	96	
	2'30"			85	98	
10	3'			90	97	
	3'30"			93	98	
	→ 4'	45W		97	97	
	4'30			113	97	
15	5'			115	94	
	5'30			115	96	
	6'			115	96	
	6'30"			119	98	
③	7'			121	99	
3'30"	7'30"			118	97	
20	8'	90W		119	97	
30"	8'30"			128	97	
1'	9'	x		144	96	
'30"	9'30"			134	97	Art sample
2'	10'	105W		135	96	10'45" Art sample
30"	10'30"			145	97	
25	11'	120W		154	97	11'10" Art sample
13:09	11'15"	quit				

↓ POST - EXERCISE VENOUS  
SAMPLE

SAMPLE ID	Hb	%SAT	CO	MET	%SAT [O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	lact	BE	Hct
XII-R-22-V	11.2	49.1	0.0	0.0	49.1	7.6	15.4	29	45	7.36	1.6	-0.4 42
XII-R-22-A	12.0	95.5	0.2	0.0	95.7	15.7	16.4	85	33	7.44	1.3	-1.1 43
XII-S <sub>1</sub> -22-A	12.5	94.7	0.2	0.0	94.9	16.2	17.1	84	36	7.37	4.2	-3.9 44
XII-S <sub>2</sub> -22-A	12.6	93.6	0.0	0.0	93.6	16.2	17.3	79	36	7.36	4.7	-4.5 45
XII-M-22-A	12.4	95.7	0.0	0.0	95.7	16.3	17.0	78	36	7.35	5.3	-5.1 45
SIGNATURE XII-M-22-V	12.2	92.8	0.0	0.4	93.1	15.5	DATE 16.6	72	31	7.37	4.9	-6.2 44

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

9/23/13

PB584 T°23 RH 9%

- 30

BOOK

PAGE

TITLE X12 SUBJECT HAN FEMALE PROJECT HT 170 WT 56 Age 23

Continued from page

DAY	TIME	STOPWATCH	WATTS	HR	O <sub>2</sub> SAT	ALT	EVENT / COMMENT
14:00							Rest Venous sample
5	14:07	0	0	86	94	(2200)	
	30"	30"		81	95		
	1'	1'		78	94		
10	1'30"	1'30"		81	94		
	2'	2'		80	94		2'15" Art sample closest
	2'30"	2'30"		83	94		
15	3'	3'		84	94		
	3'30"	3'30"		82	95		
	→ 4'	45W		105	96		
	30"	4'30"		120	95		
	1'	5'		119	94		
20	1'30"	5'30"		122	93		
	2'	6'		126	93		
	2'30"	6'30"		129	94		
	3'	7'		127	94		
25	3'30"	7'30"	90W	128	94		
	30"	8'		136	93		
	0'	8'30"	105W	143	92		
	30"	9'		146	91		Art sample Sub 1
	1'	9'30"	120W				
	30"	10'00"		161	91		Art sample 2 Sub 2
25	0'	10'30"	135W	169	92		
	10'40"			170	92		Art sample 2 MAX
	(14:20)	10:45	stop (could not continue)				

14:21

POST EX. Venous

30	SAMPLE ID	Hb	O <sub>2</sub> SAT	CO MET	% SAT	[O <sub>2</sub> ] CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Sat	BE	Hct
	X12-R-22-V	13.3	90.7	0.0	0.0	90.7	16.6	18.3	63	38	7.40	1.2 -1.1 42
	X12-R-22-A	13.1	94.3	0.0	0.0	94.3	16.9	17.9	76	39	7.40	1.7 -0.5 42
	X12-S-22-A	14.3	90.1	0.0	0.0	90.1	17.6	19.6	66	42	7.33	4.9 -3.7 44
35	X12-S-22-A	14.0	90.0	0.0	0.0	90.0	17.3	19.2	70	40	7.31	6.9 -5.8 46
	X12-M-22-A	15.0	89.8	0.0	0.0	89.8	18.4	20.5	71	40	7.29	12.3 -7.0 47
	X12-M-22-V	14.5	90.5	0.4	0.0	90.9	18.0	19.8	71	35	7.26	Continued to page 13-4 10.4 47

SIGNATURE

DATE

Continued from page

DAY	TIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT/COMMENT
							<del>Version sample test</del>
14	14:55	0	0	96	97	2200	
15	30"	30"		98	97		
1'	1'	1'		93	96		
1'30"	1'30"	1'30"		95	97		
2'	2'	2'		98	98		
2'30"	2'30"	2'30"	45W	97	97		Rest Art. Blg. sample
3'	3'	3'		97	96		
3'30"	3'30"	3'30"		102	97		
4'	4'	4'	117	97			
4'30"	4'30"	4'30"		115	97		
5'	5'	5'		127	95		
5'30"	5'30"	5'30"		132	94		
6'	6'	6'		128	96		
6'30"	6'30"	6'30"		126	96		
7'	7'	7'		126	95		
7'30"	7'30"	7'30"		125	95		
8'	8'	8'	90W	132	95		
8'30"	8'30"	8'30"		143	94		
9'	9'	9'		157	93		Art sample S,
9'15"	9'15"	9'15"	105W	167	93		
9'45"	9'45"	9'45"		170	93		Art sample 10'02" S <sub>2</sub>
10'12	10'12	10'12	120W	170	93		
10'32	10'32	10'32		175	93		Art sample Max
10'33	stop						

SAMPLE ID	Hb	%SAT	CO	Met	%SAT	[O <sub>2</sub> ]	CAP	Pco <sub>2</sub>	Pco <sub>2</sub> pH	lact	BE	PCV
X13-M-22-V	12.1	83.9	0.8	0.0	84.5	13.9	16.4	53	37	7.39	5.7	-2.2 43
X13-R-22-A	11.2	94.1	0.9	0.0	94.9	14.5	15.2	73	36	7.43	1.5	-0.1 41
X13-S <sub>1</sub> -22-A	11.7	91.8	0.0	0.0	91.8	14.8	16.1	66	38	7.39	4.6	-1.7 42
X13-S <sub>2</sub> -22-A	12.4	90.8	0.7	0.0	91.5	15.4	16.9	66	37	7.38	6.2	-2.8 43
X13-M-22-A	12.2	92.4	0.8	0.0	92.4	15.4	16.7	67	35	7.38	7.8	-3.8 43

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE
PROPRIETARY INFORMATION	

Temp: 24° RH 7.: 15

-32

BOOK

PAGE

TITLE PB: 584

100% O<sub>2</sub> Studies @ 2200m

9/23/13

PROJECT

Continued from page SUBJECT X9 HAN FEMALE

Previous max air: 90W

Time Watts Condition HR SP02

16:21 0:00 start 45W Air 122 93  
1:00 132 95  
1:30 135 96  
2:00 138 96  
3:00 140 96  
4:00 start 90W O2 151 95  
4:30 157 100  
5:00 start 105W O2 162 100  
5:30 168 100  
5:45 subject stopped 171 100  
could not continue

SUBJECT II HAN FEMALE

Previous max Air: 120W

Time Watts Condition HR SP02

daytime 16:17 0:00 start 45W Air 115 98  
1:00 135 97  
2:00 131 98  
3:00 135 98  
4:00 start 105W O2 147 98  
4:30 151 100  
5:00 start 120W O2 152 100  
5:30 stop - could not continue

SUBJECT I2 HAN FEMALE

15 mmHg venous blood sample taken post exercise for BGA Previous max Air: 135W

SUBJECT X10 HAN FEMALE

Previous max Air: 120 W

daytime Time Watts Condition HR SP02

15:47 0:00 start 45W Air 116 95  
1:00 119 93  
2:00 120 93  
3:00 125 93  
4:00 start 105W O2 128 94  
4:30 135 100  
5:00 start 120W O2 140 100  
5:30 145 100  
6:00 start 135W O2 156 100  
6:10 subject stopped

daytime 16:37 0:00 start 45W Air 100 96

1:00 120 94  
2:00 122 94  
3:00 125 95  
4:00 start 105W O2 130 95  
4:30 136 100  
5:00 start 120W O2 142 100  
5:30 149 100  
6:00 start 135W O2 156 100  
6:10 subject stopped - could not continue

SUBJECT X13 HAN FEMALE

Previous max Air: 120W

Time Watts Condition HR SP02

16:56 0:00 start 45W Air 117 96  
1:00 135 95  
2:00 135 95  
3:00 139 94  
4:00 start 90W O2 143 95

SUB X13 CONTINUE

Watts Condition HR SP02

4:30 152 100  
5:00 start 105W O2 155 100  
5:30 160 100  
6:00 start 120W O2 163 100  
6:30 171 100

SIGNATURE

DATE

Continued to page

TITLE SUBJECT X9 HAN FEMALE PROJECT HT157 WT 49kg AGE 21

BOOK

PAGE

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	SP <sub>2</sub>	ALT	EVENT	COMMENT
18:12	0	0	101	74	4200		Rest	
5	30"		96	82				
1'		103	80					
1'30"		106	78					
2'		100	79					
2'30"		98	81					
6	3'	45W	110	85				
10	3'30"		130	81				
1'	4'		142	84				
1'30"	4'30"		146	86				
2'	5'		146	85				
2'30"	5'30"		148	87				
15	6'	75W	156	87				
30"	6'30"		160	85				
16	7'	90W	164	84				
30"	7'30"		168	83				
17	8'		171	84				
20	8'15" stop							

↓ art sample 6'45"

Art sample @ 7'5"

SAMPLE ID	Hb	SAT	CO	NET SAT	[O <sub>2</sub> ]	CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	Bact	BE	ACT
X9-R-42-A	14.2	80.3	0.8	0.0	80.9	15.6	19.3	49	37	7.44	2.1	1.2 49
X9-S-42-A	14.0	81.0	1.6	0.0	82.4	15.6	18.7	51	31	7.43	8.8	-2.6 50
X9-M-42-A	14.8	82.4	0.7	0.0	83.0	16.7	20.2	51	30	7.41	12.0	-4.4 45

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE
PROPRIETARY INFORMATION	

9/23/13 PB 444 T23 RH 18%

- 34

BOOK

PAGE

TITLE SUBJECT X10 HAN FEMALE PROJECT #11595 W156 AGE 22

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT / COMMENT
18:41	0			105	86	4200	Rest
	30"			105	85		
5	1'			99	84		
	1'30"			103	85		
	2'			103	86		
	2'30"			96	83		
10	3'			98	84		Art rest sample
	3'30"			104	83		
0'	4'	45W		104	84		
30'	4'30"			125	83		
1'	5'			127	77		
1'30"	5'30'			130	77		
15	2'	6'		133	75		
	2'30"	6'30"		135	80		
	3'	7'		135	79		
	3'30"	7'30"		137	80		
20		7'45"	90W	143	78		NO submax art. sample
	30"	8'15"		148	74		
	1'	8'45'		152	76		
	1'30"	9'15		155	74		Art - sample 2 MAX
	Stop	9'44		156	79	V	

	SAMPLE ID	Hb	SAT	CO	MET	SAT [O <sub>2</sub> ]	CAP PO <sub>2</sub>	PO <sub>2</sub>	PCO <sub>2</sub>	pH	La	BE	HCT
25	X10-R-42-A	13.2	82.2	1.3	0.0	83.3	14.9	17.9	49	35	7.43	1.7	-0.7 42
	X10-M-42-A	14.1	75.5	0.6	0.0	76.0	14.6	19.2	44	33	7.40	7.6	-3.5 45

Continued to page

SIGNATURE

DATE

TITLE SUBJECT XII HAN FEMALE PROJECT #T165 WI 55 AGE 23

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT / COMMENT
19:05	0	0		88	90	4200	Rest
5	30"			101	87		
	1'			94	88		
	1'30"			94	89		
	2'			102	90		
	2'30"			93	89		
10	3'			86	88		2'45" Art sample d REST
	3'30"			93	89		
	0	41	45W	100	89		
	30"	4'30"		133	89		
	1'	5'		131	85		
15	1'30"	5'30"		138	85		
	2'	6'		139	87		
	2'30"	6'30"		135	87		
	3'	7'	90W	135	87		
	30"	7'30"		153	82		
20	1'	8'0"		160	83		Art 7'53" M <sub>1</sub>
		8.07 stop					8'05" M <sub>2</sub>
	19:14						

	SAMPLE ID	Hb	SAT	CO MET	SAT [O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	La	Bf	Hct
→	XII-R-42-A(1)	9.6	86.0	2.9 0.0	88.5	11.3	12.7	-	-	-	-	-
←	XII-R-42-A(2)	11.8	88.7	0.0 0.0	88.7	14.3	16.1	56	32	7.46	2.7	-0.3 44
XII-S-42-A	12.0	81.9	0.0 0.0	81.9	13.5	16.5	49	34	7.41	5.8	-2.4	42
XII-M-42-A	12.1	81.2	0.2 0.0	81.4	13.5	16.6	50	34	7.41	6.4	-2.4	43

Continued to page

SIGNATURE		DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE	PROPRIETARY INFORMATION

9/23/13 PB444 T° 24 RH% 17

TITLE SUBJECT X12 HAN FEMALE PROJECT HT 170 WT 56 AGE 23

Continued from page

DAY/TIME	STOPWATCH	WATTS	HR	O <sub>2</sub> SAT	ALT	EVENT/COMMENTS
19:40	0	0	87	86	4200	Rest
	30"		86	85		
5	1'		88	83		
	1'30"		96	83		
10	2'		81	87		
	2'30"		83	87		
15	3'		91	84		
	3'30"		90	84		
20	4'	45W	89	83		
	4'30"		118	83		
	5'		129	82		
	5'30"		132	79		
25	6'		137	77		
	6'30"		141	77		
	7'	90W	147	77		
30	7'30"	105W	151	76		Art sample @ 90W
	8'		157	74		
35	8'30"					Art Sample @ 105W
	stop 8'45"					

SAMPLE ID	Hb	SAT	CO	MET	SAT [O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	Bf	Hct
X12-R-42-A	13.2	82.3	0.0	0.0	82.3	14.9	18.1	48	35	7.44	1.3	0.0
X12-S-42-A	14.2	74.6	0.5	0.0	74.9	14.5	19.3	42	34	7.43	5.0	-1.1
X12-S2-42-A	14.1	74.1	0.0	0.0	74.1	14.3	19.3	42	34	7.41	7.1	-2.3
X12-M-42-A	14.3	73.1	0.1	0.0	73.2	14.3	19.6	42	34	7.39	8.2	-3.6

Continued to page

SIGNATURE

DATE

TITLE SUBJECT X13 HAN FEMALE

PROJECT HT 163 WT 66

AGE 22

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	O <sub>2</sub> SAT	ALI	EVENT / COMMENTS
20:04	0	0		106	85	4200	
	30"			98	71		
5	1'			101	71		
	1'30"			102	76		
	2'			95	71		Art sample & rest
	2'30"			96	72		
10	3'	45W	117	75			
	3'30"			131	70		
1'	4'			146	64		
	1'30"	50W	148	69			
2'	5'			155	67		5'05" Art sample
15	55'10"	stop				V	

	SAMPLE ID	Hb	SAT	(O Hb SAT [O <sub>2</sub> ])	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BE	Hct	
X13-R-42-A	10.7	77.1	0.5 0.0	72.5	11.3	14.6	45	34	7.44	1.2	-0.6	36
X13-S-42-A	10.9	78.7	0.1 0.0	73.8	11.0	14.9	40	31	7.47	3.6	-0.3	41
X13-M-42-A	11.5	72.9	0.5 0.0	73.1	11.4	15.6	40	32	7.46	3.0	-0.4	40

Continued to page

SIGNATURE		DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE	PROPRIETARY INFORMATION

- 38 START 9/24/13 PB:443 RT:22°C RH:15%  
 BOOK PAGE  
 TITLE X 16 HAN FEMALE PROJECT HT 164 WT 47 AGE 19

Continued from page

	DAYTIME	STOPWATCH	WAITS	HR	O2SAT	ALT	ELEV/COMMENTS
12:58		0'		128	79	4200	Rest
		30"		127	79		
5		1'		125	83		
		1'30"		117	84		
		2'		115	82		
		2'30"		112	82		
10		3'		114	83		
	10:06.7	3'30"		109	82		
	13:23	4'		118	80		Art sample c) Rest
		4'30		114	81		
15		5'	30W	132	81		
		5'30"		140	81		
		6"		151	77		
	10:30"	6'30"		161	78		
	2'	7		163	77		
	2'30"	7'30"		165	79		
20	3'	8'	75W	170	82		
	30	8'30"		175	80		
	1'	9'		177	77		→ Art Sub max
		9:15	90W	183	76		
30'		9:45		183	76		→ Art <del>8</del> 3 <del>8</del> Sub MAX
		10'	105W	186	77		
25	13:30	10:25					↓ Art sample d) MAX
		10:26	stop				
							PHYSIOFLD gave 8 L/m QT at every exercise level

30

35

Continued to page

SIGNATURE

DATE

Continued from page

TIME	STOPWATCH	WATTS	HR	O <sub>2</sub> STI	ALL	EVENT/COMMENTS
13:55	0	0	117	84	(4200)	
1'	1'		106	86		
5	1'30"		98	86		
	2'		100	86		
	2'30"		111	86		
10	3'	30 <del>00</del>	108	87		
	3'30"		137	90		
	4'		107	92		
	4'30"		99	90		
	5' stat 30W		95	86		
30"	5'30"		132	95		
1'	6'					
15	2'	7'				
			Stop BECAUSE PHYSIOFLOW QUIT			

X15	RESTART without PHYSIOFLOW				
14:02	0		104	85	Venous sample
	30"		120	86	
20	1'		109	88	
	1'30"				
0'	2' stat 30W		142	90	
30"	2'30"		140	91	
25	1'	3'	142	86	
	1'30"	2'30"	145	82	
2'	3'		141	83	
30"	4'30"	75W			
30"	5'		163	80	5'30" Art sub. no
2'	5'30"	90W			
30"	6'		176	83	6'11 art sample
1'	6'30"		180	86	6'30" art sample
14:20	stop 6:45				

Physioflow gave erratic signals despite electrode replacement  
 SIGNATURE continued to page  
 NO Physioflow data at all

9/24/13

BR: PB: 443 RT: 23 1 RT%: 11

- 40

BOOK PAGE  
TITLE X 14

FIAN FEMALE PROJECT HT 172 WT 63 AGE 22

Continued from page

	DAYTIME STOPWATCH	WANTS	HR	O <sub>2</sub> SAT	ALT	EVENT/COMMENT
14:38	0	0	91	87	4200	Rest
5	30"		91	91		
10	.1'		90	89		
15	1'30"		89	93		
20	2'		97	87		
25	2'30"		96	85		Art rest 2'45'
30	3'	30W	99	87		
35	3'30"		106	87		
40	4'		114	88		
45	4'30		111	87		
50	5'		108	86		
55	5'30"		113	85		
60	6!	75W	118	86		
65	6'15"	90W				
70	6'46		140	87		
75	7'15"		150	89		Art big . 7'34
80	7'30"	105W	153	88		
85	8'	<del>120W</del>	156	88	8'15	Art - sample
90	8'35'	120W	157	89	8'24	Art sample
95	8'35'	STOP				
100	PHYSIOFLOW	APPEARED TO WORK . OK				

Continued to page

SIGNATURE

DATE

TITLE X15 Repeat

PROJECT

BOOK

PAGE

Continued from page

DAYTIME STOPWATCH WATTS HR %SAT ALT ELEV

1	0	0					4200	
5	0	1'15"	30 w	No blood gas samples taken on this repeat run				
10	30"	1'45"						
15	1'	2'15"						
20	1'30"	2'45"						
25	2'	3'15"						
30	3'	3'30"	75w					
35	4'	4'30"						

No phys. vflow signal  
at all  
so quit

SAMPLE ID	Hb	%SAT	CO	NET %SAT	[O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	lact	BE	Hct	
X14-R-42-A	14.2	82.5	1.9	0.0	84.0	16.0	19.1	50	32	7.46	0.3	-0.2	47
X14-S1-42-A	15.2	82.1	1.4	0.0	83.3	17.1	20.5	50	30	7.44	2.6	-2.6	46
X14-S2-42-A	14.9	83.4	0.7	0.1	84.1	17.0	20.2	52	31	7.43	3.7	-2.6	48
X14-M-42-A	14.8	83.0	0.5	0.1	83.6	16.8	20.1	52	30	7.42	4.8	-3.7	48
X15-R-42-V	13.5	48.3	0.0	0.4	48.6	9.0	18.5	27	45	7.37	1.4	0.3	44
X15-R-42-A	14.7	82.0	0.5	0.3	82.6	16.5	20.0	49	34	7.44	0.7	-0.5	43
X15-S1-42-A	15.9	79.5	0.2	0.2	79.8	17.3	21.7	47	34	7.40	4.5	-3.0	45
X15-S2-42-A	15.0	79.9	0.0	0.1	80.0	16.4	20.5	48	32	7.38	6.1	-5.2	46
X15-M-42-A	14.6	78.4	0.3	0.7	79.2	15.7	19.8	48	32	7.36	7.9	-6.2	48
X16-R-42-A	12.7	80.0	0.0	0.0	80.0	13.9	17.4	46	38	7.41	1.5	-0.3	46
X16-S1-42-A	13.9	77.4	0.0	0.0	77.4	14.8	19.1	45	38	7.37	4.5	-2.9	45
X16-S2-42-A	14.0	74.3	0.2	0.0	75.2	14.2	18.9	45	38	7.35	5.9	-4.2	47
X16-M-42-A	14.3	75.3	0.4	0.2	75.7	14.7	19.4	47	38	7.33	7.5	-5.4	47

ALL ABOVE DATA @ 4200m 9/24/13

Continued to page

SIGNATURE		DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE	PROPRIETARY INFORMATION

9/24/13

HT: 155 WT: 42.5 AGE: 21

BOOK PAGE  
TITLE X15 HAN FEMALE

PROJECT PB: 585 RT: 22 RT%: 18

Continued from page

DAY/TIME	STOPWATCH	WATTS	HR	O <sub>2</sub> SAT	ALT	EVENT/COMMENTS
15:53	10'		105	98	2200	Venous sample
5	11'		90	96		
	11'30"		98	97		
	12'		101	97		
	12'30"		106	97		
10	13'	30W	110	97		
	13'30"		129	98		Art sample + 1145" Rest
	14'00		125	98		
2'	15'00"		130	99		
	15'30"		137	99		
15	16'00		138	96		
	16'30"		140	99		
40	17'00	75W	144	95		
30'	17'30"		159	97	5	
1'	18'00	90W	162	96	(S) Art d 18'00 75W	
20	18'30"		174	96		
	19'00		178	97	(S2) Art d 19'00 88 90W	
	19:20	105W	180	98	(S3) Art sample	
	19:41				(M) Art-sample 105W	

throughout



no physiolog

Signed

SAMPLE ID	Hb	O <sub>2</sub> SAT	CO	MET	O <sub>2</sub> SAT	[O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BE	Hct
X15-R-22-V	13.2	70.8	0.0	0.0	70.8	12.8	18.0	39	37	7.39	1.4	-2.2	40
X15-R-22-A	13.8	94.2	0.0	0.0	94.2	17.8	18.9	73	35	7.41	0.8	-1.9	42
X15-S1-22-A	15.5	91.8	0.0	0.0	91.8	19.5	21.6	70	36	7.37	3.3	-3.9	41
X15-S2-22-A	13.5	93.4	0.0	0.0	93.4	17.3	18.5	72	39	7.34	4.5	-4.4	56
X15-S3-22-A	15.6	90.7	0.0	0.0	90.7	19.4	21.4	69	37	7.33	5.9	-5.8	43
X15-M-22-A	16.2	89.9	0.6	0.2	90.6	19.9	22.0	73	37	7.30	8.1	-8.2	52
								72	37	7.30	8.1	-7.5	56

Attachment  
part two

35

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

TITLE X14 HAN FEMALE

PROJECT Pb: 585 RT: 23

RT% 20

Continued from page

	DAYTIME	STOPWATCH	WAITS	HR	O <sub>2</sub> SAT	ALT	EVENT / COMMENTS
17:21		0	0	92	98	2200	Rest
	1'30"			87	97		1'238" Venous sample
5	2'00			84	97		
	2'30"			82	97		
	3'			85	97		
	3'30"			88	97		
10	4'	45W		86	97		Art. sampled rest
	4'30"			103	98		
11	5'			113	98		
	1'30"	5'30"		111	97		
15	2'	6'		115	97		
	2'30"	6'30"		116	97		
16	3'	7'		116	97		
	3'30"	7'30"		115	97		
20	8'	90W		120	97		
	30"	8'30"		131	97		
21	9'	105W		136	97		
25	30"	9'30"		143	98	↑	
	1'0	10'	120W	146	97	↓ Art. sample	S1
	30"	10'30"		154	98	↓ artscraper - S2 10'30"	
	11'	135W		157	98	← art. sample	S3
30	11'30	150W		157	97		
35	11'52	stop					Art. sample 0 11:50 MAX

## PHTYSTOFLLOW APPEARED TO WORK

SAMPLE ID	Hb	O <sub>2</sub> SAT	CO	MET	%SAT	[O <sub>2</sub> ] CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	Lact	BE	HCT
X14-R-22-A	14.3	94.6	0.0	0.0	94.6	18.5	19.6	80	32	7.41	1.2	-3.3
X14-S1-22-A	14.6	93.5	0.0	0.0	93.5	18.7	20.0	77	35	7.37	4.0	-4.3
X14-S2-22-A	15.1	92.1	1.1	0.0	93.2	19.0	20.4	79	34	7.36	4.6	-5.3
X14-S3-22-A	15.0	92.8	0.2	0.1	93.0	19.1	20.5	79	33	7.36	6.2	-5.9
X14-M-22-A	15.1	93.7	0.0	0.0	93.7	19.4	20.7	78	32	7.34	7.7	-7.3
X14-M-22-V	13.4	74.0	1.0	0.0	74.8	13.6	18.2	48	37	7.38	1.7	-2.8
X14-R-22-V	14.6	87.8	1.4	0.0	89.1	17.6	19.7	66	30	7.32	7.1	-9.2

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE

PROPRIETARY INFORMATION

BP 12/1/82

118/82

- 44

BOOK

PAGE

TITLE X16 HAN/FEMALE

PB 585 RT 23 RH% 24

PROJECT HT 164 WT 47 AGE 19

Continued from page

TIME	STOPWATCH	WATTS	HR	O <sub>2</sub> SAT	ALT	EVENTS / COMMENTS
18:25	30"	0	120	96	2200	Venous sample
	1'		108	95		Physioflow is
5	1'30"		104	94		not calibrating!!!
	2'		97	96		
	2'30"		103	96		
	3'		99	96		
10	3'30"		99	97		Art sample @ Rest
\$	4'	30W				
30'	4'30"		131	96		
11'	5'	45W	130	96		
30"	5'30"		141	95		
B	6'		139	95		
15	6'30"		154	96		
	7'		159	96		
2'30"	7'30"		163	95		
P	8'	90W	166	96		
30'	8'30"		171	96		
20	9'	R	180	95		art. sample (S1)
P	9'2	105W				art sample (S2)
30"	9'30"		184	95		
9:45	120W		186	96		
10:05			189	96		arterial sample (M)
25	10:06	stop				
19:40						Venous sample

physioflow gave bad QT numbers. Did not record any QT at rest. & GAVE constant QT = 6 L/min at every exercise level

SAMPLE ID	Hb	O <sub>2</sub> SAT	CO	MET	O <sub>2</sub> SAT	SO <sub>2</sub>	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BE	Hct
X16-R-22-V	12.8	73.5	1.6	0.0	74.7	12.9	17.3	43	45	7.37	1.3	0.3	43
X16-R-22-A	13.3	94.2	1.1	0.0	95.3	17.1	18.0	76	38	7.40	2.0	-1.0	45
X16-S1-22-A	13.8	91.1	1.7	0.0	92.7	17.2	18.6	73	39	7.35	5.7	-3.8	46
X16-S2-22-A	13.9	91.5	1.0	0.0	92.4	17.4	18.9	74	38	7.32	7.6	-5.9	57
X16-M-22-A	14.2	92.3	1.1	0.0	93.3	18.0	19.3	77	35	7.34	9.3	Continued to page 48	48
SIGNATURE X16-M-22-V	14.1	78.8	1.7	0.0	80.2	15.2	18.9	55	37	7.29	9.3	-8.1	48

Continued from page

SUBJECT X15 HAN FEMALE

Previous max air 105W

Daytime	Time	Watts	Condition	HR	SpO2
10:52	0:00	start 45W	Air	121	99
	1:00			135	95
	2:00	start 90W	O <sub>2</sub>	148	98
	3:00	start 90W	O <sub>2</sub>	157	97
	3:30			165	100
10	4:00	start 105W	O <sub>2</sub>	172	100
	4:30			175	100
	5:00	start 120W		179	100
15	5:15	subject stopped - lights turned off by accident			

SUBJECT X14 HAN CHINESE FEMALE

Previous max air: 150W

Daytime	Time	Watts	Condition	HR	SpO2
10:11	0:00	start 45W	Air	102	97
	1:00			113	97
	2:00	start 90W	O <sub>2</sub>	120	97
	3:30	start 120W	O <sub>2</sub>	124	100
	4:30	start 135W	O <sub>2</sub>	143	100
20	5:30	start 150W	O <sub>2</sub>	152	100
	6:00	subject stopped -		154	100
		could not continue			

SUBJECT X16 HAN FEMALE <sup>prev. max on air</sup> 120W SUBJECT 16 continued

Daytime	Time	Watts	Condition	HR	SpO2	W	C	HR	SpO2
10:30	0:00	start 45W	Air	117	97			5:30	
	1:00			147	89			5:45	subject
	2:00			150	96				107 100
	3:00	start 90W	O <sub>2</sub>	156	96				
	3:30			159	100				
	4:00	start 105W	O <sub>2</sub>	170	100				
30	4:30			177	100				
	5:00	start 120W	O <sub>2</sub>	182	100				

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Start 9/25/13 Wednesday

- 46

BOOK

PAGE

TITLE X17 TIBETAN MALE PROJECT HT: <sup>164</sup> ~~161~~ WT: 56 AGE: 21

PB: 589 RT: 22 P% 16

Bp:  
120/66

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	O <sub>2</sub> SAT	ALT	Event / comments
11:12	9'			66	95	2200m	Rest
	30"			66	94		
5	1'			70	95		
	1'30"			71	94	Venous <del>MAX</del>	o Rest
	2'			73	94		
	2'30"			74	94		
10	3'			66	95		
	3'30"			70	95		ABG o Rest
15	4'	60W		83	94		
	4'30"			115	96		
	5'			105	94		
	5'30"	5'30"		110	94		
20	6'			108	95		
	6'30"			106	95		
	7'			118	97		
	7'30"			108	97		
25	8'	120W		109	96		
	8'30"	150W		132	94		
	9'	180W		146	96		
	9'30"			160	96		
	10'	195W		169	95		
	10'30			175	94		ABG o MAX
30	11:23	10:40 stopped, unable to continue					
35	11:38						Venous sample post ex.

Continued to page

SIGNATURE

DATE

Continued from page

	DAYTIME STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT / COMMENT
11:44	0	0	121	97	(2200m)	Rest
5	30"		113	97		
	1'		100	96		Venous sample & rest
	1'30"		116	96		
	2'		112	97		
	2'30"		111	95		
10	3'		111	96		
	3'30"		103	95		
15	4'	60W	105	96		ABG o Rest
	30"	4'30"	152	96		
	1'	5'	143	96		
	1'30"	5'30"	144	96		
20	2'	6'	140	96		
	2'30"	6'30"	148	96		
	3'	7'	150	96		
	3'30"	7'30"	147	95		
25	4' o	8'	120W	150	96	
	30" o	8'30	135W	168		
	30"	9'	173	93		← sample S <sub>1</sub>
	1' o	9'30	180W	183*		
	30"	10'30"	165W	193*	←	sample S <sub>2</sub>
	30"	11'20 stop		197	→	ABG Max
30	11:56					

12:12 Venous sample post exercise

\* # from physioflow file

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE

PROPRIETARY INFORMATION

BP: 125/72 - 48

9/25/13

AB589 T° 23° RH 18%

BOOK

PAGE

TITLE X19 SUBJECT TIBETAN MALE PROJECT HT 165 WT 64 AGE 24

Continued from page

DAY	TIME	STOPWATCH	WATTS	HR	SPO2	ALT	EVENT / COMMENT
12	19	0'		66	96		
	30"	8		78	95	2200m	Venous sample & Rest
5	1'			71	95		
	1'30"			64	96		
	2'			62	96		
	2'30"			64	96		
10	3'			67	96		
	3'30"			69	96		
	4'			69	96		
	4'30"			72	96		ABG & rest air in syringe
	5'			71	96		
15	5'30"			72	95		
	6'			73	96		
	6'30"			73	96		delay due to arterial line flaky
	7'	60W		88	95		
18	7'30'			100	97		
	8'			104	93		
20	8'30"			105	96		
	9'			105	94		
	9'30"			109	95		
	10'	120W		113	96		
25	10'30"			117	96		
	11"	150W		124	95		
	11'30"			124	94		
	12'			145	95		
30	12'30"			152	96		ABG bubbles
	13'			159	95		ABG No bubbles
	13'15'			164	95		
(Q:33)	13'20'	stop -	subject quit				

12:50

Post Venous sample post-exercise

35

Continued to page

SIGNATURE

DATE

Continued from page

DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT/COMMENT
12:52	0	0	69	96	2200m	Venous sample draw
	30"		69	96		
5	1"		74	95		
	1'30"		66	96		
	2'		64	97		
	2'30"		63	96		ABG s Rest
10	3'	60W	67	97		
	3'30"		81	99		
15	4'		99	95		
	1'30"	4'30"	98	93		
	2'	5'	102	94		
	2'30"	5'30"	110	94		
	3'0"	6'	112	94		
	3'0" 0	6'30"	126	94	7	
20	20"	7'	142	94	7	ABG s 150W
	1'0"	7'30"	154	92	7	ABG s 2 165W
	30" 0	8'	164	93		
25	30" 0	8'30"	169	93		ABG s 3 } 180W
	1'	9'00"	174	91		ABG M }
	(13:05)	8'9'30"	stop			

13:25 Venous at rest

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE
PROPRIETARY INFORMATION	

BP:120/70 - 50

9/25/13

PB 589 T 23° RH 21%

BOOK PAGE

TITLE X21 SUBJECT TIBETAN MALE PROJECT NT166 WT 54 AGE 22

Continued from page

	DAYTIME	STOONWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT / COMMENT
12:25	Ø	Ø	86	98	2200M		Rest
5	30"		82	98			
1'	72	97					
1'30"	76	98					
2'	79	96					
2'30"	90	99					
3'	86	97					
3'30"	69	97					
4'	70	97					
4'30"	73	97					
5'	77	96					delay due to Art.
5'30"	75	97					catheter flaky
6'	76	96					
6'30"	75	96					
7'	80	98					Art sample Rest
7'30"	83	97					
8'	60W	80	95				
30'	8'30"	(67)	89				
1'	9'	(60)	92				
1'30"	9'30"	128	93				
2'	10'	135	96				
2'30"	10'30"	140	97				
3'Ø	11"	120W	140	97			
30"Ø	11'30"	150W	150	97			
30"	12'00"		159	96			
1'	12'30"		162	96			ABG S1 } all at 150W
1'30	13'00"		168	95			ABG S2 }
2'	13'30"		170	96			ABG M }
	13'35" stop					✓	

13:55 Venous blood sample post-exercise

Continued to page

SIGNATURE

DATE

## TITLE

Continued from page

SUBJECT X17 TIBETAN MALE HR SpO<sub>2</sub>  
 previous max air: 195W (Rest: 95 97)

	Daytime	Time	Watts	Condition	HR	SpO <sub>2</sub>
5	14:30	0:00	60W	Air	103	97
		1:00			119	97
		2:00			117	97
		3:00	start 120W	O <sub>2</sub>	126	98
10		4:00	start 195W	O <sub>2</sub>	129	100
		4:30			145	100
		5:00	start 210W	O <sub>2</sub>	162	100
		5:30	subject had to stop			

SUBJECT X20 TIBETAN MALE HR SpO<sub>2</sub>  
 previous max air: 180W (Rest: 66 90)

	Daytime	Time	Watts	Condition	HR	SpO <sub>2</sub>
5	15:32	0:00	60W	Air	98	91
		1:00			103	90
		2:00			98	91
		3:00	start 120W	O <sub>2</sub>	111	91
10		3:45			118	99
		4:00	start 180W	O <sub>2</sub>	127	98
		4:30			140	99
		5:00	start 195W	O <sub>2</sub>	151	99
		5:30			161	99
		5:40	subject had to stop		159	100

SUBJECT 18 TIBETAN MALE

previous max air: 165W (Rest: 72 96)

	Daytime	Time	Watts	Condition	HR	SpO <sub>2</sub>
15	14:45	0:00	60W	Air	122	96
		0:30			127	97
		1:00			141	96
20		3:00	start 120W	O <sub>2</sub>	151	100
		3:30			145	100
		4:00	start 150W	O <sub>2</sub>	164	100
		4:30			177	100
25		5:00	start 165W	O <sub>2</sub>	188	100
		5:30			192	100
		6:00	start 140W		197	100
		6:30	subject had to stop		199	100

previous max air: 150W (HR: 72 Sat: 96)

SUBJECT X21 TIBETAN MALE

	Daytime	Time	Watts	Condition	HR	SpO <sub>2</sub>
20	15:15	0:00	60W	Air	88	96
		2:00			124	95
		3:00	start 120W	O <sub>2</sub>	131	96
25		3:30			147	100
		4:00	start 150W	O <sub>2</sub>	151	100
		4:30			161	100
		5:00	start 165W	O <sub>2</sub>	166	100
		5:30			170	100
		6:00	subject had to stop		171	100

SUBJECT 19 continued

SUBJECT 19 TIBETAN MALE

previous max air: 150W (Rest: 72 96)

	Daytime	Time	Watts	Condition	HR	SpO <sub>2</sub>
30	15:12	0:00	60W	Air	102	98
		0:30			107	99
		1:00			112	94
		2:00			115	96

	Time	Watts	Condition	HR	SpO <sub>2</sub>
	3:00	start 120W	O <sub>2</sub>	129	95
	3:30			137	100
	4:00	start 150W	O <sub>2</sub>	131	100
	5:00	start 165W	O <sub>2</sub>	145	100
	5:30	subject had to stop		153	100

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Continued from page

SAMPLE ID	Hb	%SAT	CO	MET	%SAT [O <sub>2</sub> ]	CAP PO <sub>2</sub>	PO <sub>2</sub>	PCO <sub>2</sub>	pH	Lact	BE	HCT
X17-R-22-V	14.6	84.6	1.7	0.0	85.4	16.8	19.7	56	35	7.41	0.9	-1.9
X17-R-22-A	15.9	93.1	1.0	0.0	94.1	20.3	21.5	77	33	7.42	0.5	-2.2
X17-S-22-A	14.8	92.7	0.0	0.0	92.7	18.8	20.3	76	37	7.32	4.7	-6.3
X17-M-22-A	16.7	93.1	0.0	0.1	93.2	21.3	22.9	79	35	7.32	6.3	-7.2
X17-N-22-V	14.8	86.8	0.0	0.0	86.8	17.7	20.3	60	32	7.35	4.9	-6.8
X18-R-22-V	16.1	67.6	0.4	0.0	67.9	14.9	22.0	41	44	7.35	2.0	-1.6
X18-R-22-A	16.8	92.0	1.6	0.2	93.7	21.2	22.6	75	34	7.41	1.7	-2.3
X18-S <sub>1</sub> -22-A	17.3	90.7	0.5	0.1	91.2	21.5	23.6	70	38	7.31	5.2	-6.6
X18-S <sub>2</sub> -22-A	18.1	89.0	1.6	0.3	90.7	22.1	24.4	70	37	7.29	6.5	-8.0
X18-M-22-A	17.5	89.8	0.3	0.7	90.7	21.6	23.8	72	37	7.26	8.7	-9.7
X18-M-22-V	16.1	83.3	0.1	0.3	83.7	18.3	21.9	55	33	7.31	6.3	-8.5
X19-R-22-V	17.3	70.0	1.7	0.3	72.2	16.8	23.3	41	45	7.37	1.4	0.2
X19-R-22-A	17.0	94.0	0.0	0.6	94.6	21.9	23.2	76	39	7.41	1.4	0.2
X19-S-22-A	18.2	90.6	1.7	0.2	92.3	22.5	24.4	73	41	7.30	7.6	-5.9
X19-M-22-A	18.2	91.1	1.0	0.2	92.2	22.7	24.6	75	40	7.28	9.6	-7.5
X19-M-22-V	17.5	73.1	1.4	0.3	74.4	17.5	23.5	56	39	7.30	7.3	-6.7
X20-R-22-V	14.1	85.7	0.7	0.1	86.4	16.5	19.1	57	40	7.38	1.3	-1.3
X20-R-22-A	14.1	94.5	0.4	0.0	94.8	18.2	19.2	79	37	7.41	1.1	-0.8
X20-S <sub>1</sub> -22-A	14.8	90.4	0.7	0.0	91.0	18.3	20.1	69	44	7.33	3.0	-2.9
X20-S <sub>2</sub> -22-A	15.1	90.3	0.5	0.0	90.8	18.6	20.5	69	45	7.32	4.0	-3.1
X20-S <sub>3</sub> -22-A	15.8	90.3	0.9	0.0	91.1	19.5	21.4	69	45	7.29	5.3	-5.1
X20-M-22-A	15.3	89.5	0.6	0.0	90.0	18.8	20.8	69	44	7.29	6.9	-6.6
X20-M-22-V	14.2	79.5	1.7	0.0	80.9	15.5	19.2	50	37	7.35	4.7	-4.6
X21-R-22-V	15.7	67.5	1.0	0.0	68.0	14.5	21.3	39	42	7.36	1.1	-1.8
X21-R-22-A	16.3	93.6	2.2	0.0	95.7	20.8	21.8	81	33	7.41	1.0	-2.8
X21-S <sub>1</sub> -22-A	16.6	92.7	1.2	0.0	93.8	21.0	22.4	77	37	7.30	6.3	-7.5
X21-S <sub>2</sub> -22-A	17.3	92.4	0.8	0.0	93.2	21.9	23.5	76	38	7.28	7.4	-8.2
X21-M-22-A	17.2	91.9	1.3	0.2	93.3	21.7	23.3	78	36	7.27	8.3	-9.5
X21-M-22-V	15.2	90.3	0.9	0.0	91.1	18.8	20.7	66	29	7.36	5.4	-7.5

Continued to page

SIGNATURE

DATE

TITLE X17 SUBJECT TIBETAN MALE PROJECT HT 164 WT 56 AGE 21

Continued from page

	DAYTIME	STOPWATCH	WAITS	HR	SPO <sub>2</sub>	ALT	EVENT/COMMENT
17:23		0	0	85	85	4200m	Rest
5	30"			89	85		
10	1"			87	84		
15	1'30"			82	87		ABG at REST
20	2'			91	83		
25	2'30"			87	82		
30	0	3'	6CW	89	89		
35	30"	3'30"		125			
40	1'	4'		127	81		
45	1'30"	4'30"		127	83		
50	2'	5'		128	85		
55	2'30"	5'30"		125	84		
60	0	6'	120W	135	85		
65	30"	6'30"		149	83		
70	1'0	7'	150W	157	80		
75	30"	7'30"	165W	166	83		
80	30"	8'		171	85		
85	1'0	8'30"	180W	176	84		ABG 0
90	9'	195W		179	86		ABG 0
95	17:32	9'15"	stop	181	87	✓	ABG 0 S <sub>1,0</sub> 165W
100							S <sub>2,0</sub> 0 180W
							ABG 0 195W before stop
			could not continue				

	SAMPLE	Hb	Sat%	CO	Met Sat%	[O <sub>2</sub> ] CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	Lact	B <sub>E</sub>	HCT
25	X17-R-42-A	14.0	84.6	0.4	0.0	84.9	16.2	19.1	52	33	7.44	0.9
	X17-S <sub>1</sub> -42-A	15.3	79.8	0.0	0.2	80.0	16.7	20.9	50	32	7.38	5.9
	X17-S <sub>2</sub> -42-A	14.7	82.0	0.0	0.0	82.0	16.5	20.1	52	32	7.36	7.3
	X17-M-42-A	14.6	83.5	0.0	0.0	83.5	16.7	20.0	52	30	7.36	8.3
												7.1
30												50
35												

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Bp 121/67 - 54

BOOK

PAGE

9/25/83

PB:443 T° 24 RH% 16

TITLE

XIB TIBETAN MALE PROJECT HT: 167, WT 69, AGE 21

Continued from page

	DAY/TIME	STOPWATCH	WAITS	TIR	O <sub>2</sub> SAT	ALT	ELEM/COMMENTS
17:48		0'	0'	132	90	4200	
	30"			131	89		
5	1'			115	88		
	1'30"			120	89		
	2'			126	88	ABG	0 REST (bubbles)
	2'30"			125	89		
10	0'	3'	60W	129	89		
	3'30"			172	90		
	4'			161	89		
15	1'30"	4'30"		159	84		
	2"	5'		162	83		
	2'30"	5'30"		160	84		
20	3'0"	6'	120W	171	83		
	30"	6'30"		183	82		
	0'	7'	150W	192	82		
	7'15"			194	79		
25	30"	7'30"		196	80	ABG	s1 0 150W
	4'	7'45"	165W	197	81		
	8'10"			198	81	ABG	s2 1 165W
	8'40"			200	78	ABG	s3 1
	8'50"	180W		200	82	ABG	M -0 180W
	9:15	Stop		202	81		

he could not continue



SAMPLE ID	Hb	%SAT CO	MET %SAT [O <sub>2</sub> ]	CAB	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	Lact	BE	HCT
XIB-42-R-A	16.4	86.1	1.0 0.0	87.0	19.4	22.3	56	32	7.45	1.8 -0.9 50
XIB-42-S1-A	17.1	76.5	1.5 0.1	77.8	17.9	23.1	48	32	7.36	6.7 -6.2 51
XIB-S2-42-A	17.0	80.4	0.3 0.0	80.7	18.7	23.2	52	31	7.35	9.0 -7.1 54
30 XIB-S3-42-A	17.7	77.8	0.9 0.0	78.6	18.8	24.0	49	30	7.33	10.7 -8.6 54
XIB-M-42A	17.1	79.6	0.0 0.1	79.7	18.6	23.4	50	28	7.32	12.2 -9.9 53

35

Continued to page

SIGNATURE

DATE

TITLE X19 TIBETAN MALE

PROJECT HT165 WT 64 AGE 21

BOOK

PAGE

Continued from page

DAYTIME	STOPWATCH	WATTS	HR	O2SAT	ALT	EVENT / COMMENTS
18:15	0	0	69	80	4200	Rest
	30"		67	80		
5	1'		72	84		
	1'30"		90	89		
	2'		87	84		
	2'30"		81	90		ABG & RESI
10	3'	60W	87	89		
	3'30"		89	89		
15	4'		105	84		
	4'30"		117	86		
	5'		119	84		
	5'30"		124	86		
20	6'	120W	128	84		
	6'30"		140	84		
	7'	135W	145	84		
	7'30		151	84		ABG S1
	8'	150W	160	83		ABG S2
25	8'30"		164	85		ABG M
	8'40'	stop he could not continue				

SAMPLE ID	Hb	%SAT	CO	MET	%SAT	[O2] CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BE	HCT
X19-R-42-A	16.5	83.5	1.5	0.0	84.8	18.9	22.2	51	37	7.44	1.1	1.2
X19-S1-42-A	17.6	79.7	1.0	0.1	80.6	19.2	23.9	49	36	7.36	6.7	-4.4
X19-S2-42-A	17.5	80.6	1.4	0.1	81.7	19.4	23.4	51	36	7.35	8.1	-4.9
X19-M-42-A	17.5	77.9	0.2	1.6	79.3	18.7	23.5	52	35	7.35	8.9	-5.4

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

BP: 115/70 - 56

BOOK

PAGE

9/25/13

PB 443 T:24

RH%: 18

TITLE

X20 TIBETAN MALE

PROJECT

H167 WT 62 AGE 20

Continued from page

	DAYTIME STOPWATCH	WATTS	HR	O <sub>2</sub> SAT	ALT	EVENT / COMMENTS
13:38	0				4200	
5	30"		90	84		Rest
10	1'		78	87		
15	1'30"		75	89		
20	2'		65	89		
	2'30"		67	88		ABG } Rest
5	3'	60W	70	87		
10	3'30"		94	91		
15	4'		106	87		
20	4'30"		110	85		
	5'		116	85		
5	5'30"		121	85		
10	6'	150W	123	88		
15	6'30"		144	80		
20	7"	165W	163	78		ABG } 165W S1
	7'30"	180W	173	80		ABG } 180W S2
	8"	180W	179	80		ABG } m
25	8'15" stop/					
	could not continue					

SAMPLE ID	Hb	%SAT	CO	MET	%SAT	[O <sub>2</sub> ]	CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	Lact	BE	HCT
X20-R-42-A	14.5	84.4	1.1	0.0	85.3	16.7	19.0	53	36	7.43	1.3	0.0	47
X20-S <sub>1</sub> -42-A	14.6	75.4	1.3	0.0	76.4	15.1	19.7	46	39	7.36	5.2	-3.1	48
X20-S <sub>2</sub> -42-A	15.0	77.4	0.0	0.5	77.6	15.9	20.5	47	40	7.34	6.4	-3.9	50
X20-M-42-A	15.6	76.2	1.0	0.0	77.0	16.2	21.1	48	39	7.33	7.5	-4.9	51

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

TITLE X21 SUBJECT TIBETAN MALE PROJECT

HT 166 WT 54 AGE 22

Continued from page

	DAY/TIME	STOPWATCH	WAITS	HR	O <sub>2</sub> SAT	ALT	EVENT/COMMENT
19:15	Ø			84	92	4200	Rest
5	30"			85	91		
	1'			87	92		
	1'30"			82	91		
	2'			86	90		
	2'30"			76	90		ABG Ø Rest
Ø	3'	60W		87	91		
10	30"	3'30"		121	89		
	1'	41		121	84		
	1'30"	4'30"		131	87		
	2'	51		128	87		
	2'30"	5'30"		130	85		
15	3'0	6'	120W	136	87		
	30"	6'30"		149	87		
	1'Ø	71	135W	159	85		
	30"	7'30		161	85		ABG -S.
	1'	8'	150W	168	86		
20	15"	8'15		166	87		ABG M
	8'30"	stop		169	86		
		could not continue				✓	

SAMPLE ID	Hb	%SAT	CO	MET	%SAT	[O <sub>2</sub> ] CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	lact	BE	Hct
X21-R-42-A	15.6	85.8	1.9	0.0	87.5	18.3	20.9	54	33	7.42	0.9	-2.2 51
X21-S-42-A	16.1	79.8	1.3	0.0	80.8	17.6	21.8	49	33	7.36	5.7	-5.8 51
X21-M-42-A	16.3	81.0	1.5	0.0	82.2	18.1	22.0	51	32	7.34	7.1	-7.2 56

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE
PROPRIETARY INFORMATION	

BP: 115/63

- 58

BOOK

PAGE

START THURSDAY 9/26/13

PB 587 T 21' RH 20%

TITLE X 22 SUBJECT TIBETAN MALE PROJECT

HT 165 WT 59 AGE 23

Continued from page

	DAYTIME STOPWATCH WATTS	HR	SPO <sub>2</sub>	ALT	EVENT / COMMENT
11:32	Ø Ø	72	98	(2200)	Venous Post samp
11:37	30"	71	98		
5	1'	64	98		
	1'30"	64	99		
	2'	65	98		ABG o Post
10	2'30	66	98		
	3'	66	98		
	3'30"	72	98		
	Ø 4'	66	97		
30"	4'30	99	99		
1'	5'	96	98		
15	1'30"	5'30	99	97	
	2'	6'	98	97	
	2'30	6'30"	105	98	
	3'Ø	7'	120W	107	97
	30"	7'30	117	97	
20	1'	8'	150W	129	96
	30"	8'30"	138	94	
	1'	9'	180W	154	95
	30"	9'30	157	96	
25	1'	10"	163	97	ABG S,
	10'30"	167	94		ABG o MAX
	10'45"	168	94		
	STOP/could not continue				✓

Venous sample collected  
Post-exercise

35

Continued to page

SIGNATURE

DATE

TITLE X23 SUBJECT TIBETAN PROJECT HT: 167 WT: 62 AGE: 42

Continued from page

	STOPLWATCH	WATTS	HR	SPO <sub>2</sub>	ALI	EVENT / COMMENT
12:04	0				(2200)	Venous Sample
12:08	0	0	80	97		
5	30"		78	96		Rest
	1'		76	97		
	1'30"		81	96		
	2'		76	96		ABG & Rest
	2'30"		84	96		
10	3'	60W	100	96		
	3'30"		119	94		
	4'		127	94		
	1'30"	4'30"	124	95		
	2'	5'	120	96		
15	2'30"	5'30"	121	96		
	3'0'	6'	123	97		
	30"	6'30"	141	96		
	0	7	156	95		
	30"	7'30"	172	95		
20	1'	8'	177	95		ABG S <sub>1</sub>
	1'30	8'30"	180	96		ABG S <sub>2</sub>
	0	8'40	190	96		
	9:05	stop	193	95		ABG (M) just before stop
25	11:25					Venous sample post
						stop just after ABG. could not continue
30						
35						

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE
PROPRIETARY INFORMATION	

BP: 139/72 60

9/26/13

PB: 586 T° 23 RH% 14

BOOK PAGE

TITLE X24 SUBJECT TIBETAN MALE PROJECT HT: 172 WT: 58 AGE 23

Continued from page

	DAYTIME STOPWATCH	WAITS	HR	SPO <sub>2</sub>	ALT	EVENT / comments
	12:35					
5	12:40	0	84	98		2200 Venous sample rest
	30"		90	98		
	1'		86	98		
	1'30"		89	98		
	2'		88	96		
	2'30"		77	97		
10	0	3'	60W	90	96	ABG o Rest
	30"	3'30		120	96	
	1'	4'		114	95	
	1'30"	4'30		118	95	
	2'	5'		129	96	
15	2'30"	5'30"		132	97	
	3'0	6'	120W	135	96	
	30"	6'30"		149	95	
	0	7'	135W	163	93	
	30"	7'30"		174	95	s. ABG 7'47"
20	1'	8'	150W	180	94	
	30"	8'30		184	94	s. ABG o 8'20"
		8'37"		186	94	M V ABG o just before stop
	8:45	stop				
		could not continue				
25	12:50					Venous post exercise
30						
35						

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Continued from page

DAY/TIME	SOPWATCH	WAITS	HR	SPO <sub>2</sub>	ALT	EVENT/COMMENTS
13:04						Venous sample & Rest
13:10	0	0	70	97	2200	
5	30"		73	96		
	1'		70	97		
	1'30"		75	96		
	2'		73	97		
10	2'30"		74	96		
	3		76	95		Rest Art ~2'50"
	3'30"		89	97		
0	4'	60W	89	98		
30"	4'30"		117	98		
1'	5'		117	97		
15	1'30"	5'30"	118	97		
	2'	6'	119	97		
	2'30"	6'30"	120	96		
	3'0	7'	120W	96		
30"	7'30"		140	96		
20	1'0	8'	125	96		
	30"0	8'30'	150W	96		
	30"	9'	157	94		
	1'0	9'30	168	96		S1 ABG o) 9:21
30"	10'	180W	172	95		
25	1'	10'30	182	97		S2 ABG 195W
		stop	184	97		4M ABG just before stop

could not continue

13:23

Venous sample post exercise

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE
PROPRIETARY INFORMATION	

Bp: 126/78 - 62

9/26/13  
THUR

PB585 RT° RH%

BOOK

PAGE

TITLE X26 TIBETAN MALE

PROJECT HT 167 WT 50 AGE 22

	TIME	STOPWATCH	WATTS	HR	SPO2	ALT	EVENT/COMMENT
13:25						2200	Venous sample
13:40	Ø	Ø		83	99		Rest
	30"			78	97		
5	1'			75	98		
	1'30"			77	96		
	2'			75	97		ABG Ø Rest
	2'30"			70	96		
10	Ø	3'	60W	78	96		
	30"	3'30"		106	94		
	1"	4'		111	99		
	1'30"	4'30'		115	99		
	2'	5'		120	99		
	2'30"	5'30		123	96		
15	3 Ø	6'	120W	126	98		
	30" Ø	6'30'	150W	141	97		
	1'30"	7'	<del>150W</del>	156	97		ABG Ø 7'15
	30'	7'30		169	95		ABG
	48" 1'	8'		175	98		ABG just before he stopped
20	8'30"	Stop	could not continue				
	13:50						Venous sample post-ex
25							
30							
35							

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Continued from page

SUBJECT X22 TIBETAN MALE

previous max air: 180W ; HR: 168

Daytime Time Watts Condition HR SP02

14:19 0:00 start bow Air 97 -

0:30

101 99

1:00

103 99

2:00

109 99

3:00 start 120W 02

115 99

3:15

125 100

3:30

127 100

4:00 start 180W 02

129 100

4:30

141 100

5:00 start 195W 02

155 100

5:30

163 100

6:00 subject could not continue

SUBJECT X23 TIBETAN MALE

previous max air: 165W ; HR: 193

Daytime Time Watts Condition HR SP02

14:36 0:00 start bow Air 95 98

0:30

122 98

1:30

127 97

2:00

129 98

2:30

129 97

3:00 start 120W 02

137 98

4:00 start 165W 02

157 100

4:30

167 100

5:00 start 180W 02

176 100

5:30

185 100

5:40 subject had to stop

SUBJECT 2b TIBETAN MALE

previous max air: 150 ; HR: 177

Daytime Time Watts Condition HR SP02

15:22 0:00 start bow Air 95 98

1:00

120 95

SIGNATURE

SUBJECT X24 TIBETAN MALE

previous max air: 150W ; HR: 196

Daytime Time Watts Condition HR SP02

14:49 0:00 start bow Air 98 100

0:30

98 123

1:00

95 130

2:00

96 139

3:00

143 96

3:20

157 100

4:00

162 100

4:30

170 100

5:00

176 100

subject had to stop

SUBJECT X25 TIBETAN MALE

previous max air: 195W ; HR: 184

Daytime Time Watts Condition HR SP02

15:09 0:00 start bow Air 90 99

1:00

111 97

2:00

118 97

3:00

119 98

3:11

132 100

3:30

131 100

4:00

134 100

4:30

148 100

5:00

153 100

5:30

169 100

5:40

subject had to stop 173 100

SUBJECT 2b continued

Time Watts Condition HR SP02

2:30

131 96

3:00

132 95

3:20

147 100

4:00

157 100

4:30

165 100

5:00

start 165W

Continued to page 170 100

5:30

subject had

to stop 173 100

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

9/26/13 THUR

- 64

PB 443 RT° 23 RH% 20

Bp: 110/67

BOOK

PAGE

TITLE X22 SUBJECT TIBETAN/MALE PROJECT HT: 65 WT 59 AGE 23

Continued from page

DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	Elev/Comments	
16:20	Ø	Ø	75	90	4200	Rest	
	30"		81	91			
5	1'		78	90			
	1'30"		76	90			
10	2'		75	90		ABG Ø Rest	
	2'30"		78	90			
15	Ø	60W	84	93			
30"	3'30"		111	92			
1'	4'		118	88			
1'30"	4'30"		121	85			
2'	5'		120	85			
2'30"	5'30"		123	85			
3'Ø	6'	120W	128	87			
30"	6'30"		145	84			
1'Ø	7"	150W	151	84			
30"	7'30		162	85	↑		
1'Ø	8' "	165W	166	83	ABG 7'50"	S1 150W	
20	30"	8'30	-11-	170	82	ABG 8'12"	S2 165W
	6		171	81	↓ ABG 8'30	M 165W	
	8:40 Stop						

could not continue

25	SAMPLE ID	Hb	%SAT CO <sub>2</sub>	Met %	SAT [O <sub>2</sub> ] CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BE	Hct
	X22-R-42-A	14.6	85.6	0.2	0.1	85.9	17.1	20.0	54	33	7.41 1.8 -2.9 46
	X22-S1-42-A	14.7	80.2	0.0	0.4	80.5	16.2	20.1	49	29	7.35 7.0 -8.2 46
	X22-S2-42-A	15.7	77.6	1.1	0.1	78.5	16.7	21.3	49	31	7.33 8.4 -8.3 48
30	X22-M-42-A	15.6	78.4	0.9	0.0	79.1	16.7	21.2	49	30	7.32 9.0 -9.2 49

35

Continued to page

SIGNATURE

DATE

TITLE X23 SUBJECT TIBETAN MALE

PROJECT HI167 WT62 AGE 24

BOOK

PAGE

Continued from page

DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALI	EVENT / COMMENTS
16:42	0	0	93	85	(4200)	Rest
5	30"		96	86		
1'			94	86		
1'30"			90	86		ABG DRESI
2'			89	85		
2'30"			87	87		
8	3'	BOW	96	89		
10 30"	3'30"		119	81		
11	4'		141	83		
1'30"	4'30"		141	83		
2'	5'		140	83		
2'30"	5'30"		145	83		
3'0	6'	120W	143	83		
30"	6'30"		163	78		
6	7'	150W	173	78		
30"	7'30		182	83	150W S	ABG 3 S1
1'0	8'	165W	186	79	ABG	S2
15'	8'10		189	79	ABG	165W M
	stop 8'15"					
						could now continue

25 SAMPLE ID	Hb	%SAT	CO	MET	%SAT	[O <sub>2</sub> ] CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	lact	BE	NCI
X23-R-42-A	14.7	78.7	0.0	0.1	78.8	15.8	20.1	47	37	7.43	1.2	0.6
X23-S1-42-A	15.1	78.8	0.0	0.2	78.9	16.3	20.0	48	33	7.39	6.2	-3.9
X23-S2-42-A	15.5	79.1	0.0	0.2	79.3	16.8	21.2	48	32	7.39	7.5	-4.4
X23-M-42-A	15.6	78.2	0.0	0.2	78.4	16.7	21.3	47	32	7.38	8.0	-5.0

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

P126/78

9/26/13 THUR PB443 T° 24 RH% 18

- 66

BOOK

PAGE

TITLE X24 SUBJECT TIBETAN MALE PROJECT HT 172 WT 58 AGE 23

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALI	Even/Comments
5	17:12	0	Rest	100	89	400	
	30"			96	87		Rest
	1'			102	88		
10	1'30"			99	89		
	2'			96	88		ABG Rest sample
	2'30"			100	90		
15	3'	to 60W		117	89		
	3'30"			134	90		
	4'			132	84		
20	1'30"	4'30"		137	87		
	2'	5'		143	86		
	2'30"	5'30		145	86		
25	3'0	6'?	to 120W	149	86		
	30"	6'30		165	84		
	1'0	7'	to 135W	171	82	at 135w S1	ABG at 7'2 135W
30"	7'30	to 150W		176	82	S2 7'45"	ABG at 150W
30	8'0"			180	83		
20	8'15	to 165W		182	82	(S3)	ABG at 165W 8'15"
	8'30"	stop		185	82	M	ABG at 165W 8'30"
	could not continue						just before stop

	SAMPLE ID	Hb	%SAT	CO MET	%SAT	[O <sub>2</sub> ] CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	Lact	BE	HCT
25	X24-R-42-A	14.6	83.4	0.9	0.0	84.2	16.7	19.8	50	38	7.42	0.9
	X24-S1-42-A	14.7	80.4	0.5	0.1	81.0	16.2	20.1	49	37	7.35	6.1
	X24-S2-42-A	15.0	79.6	0.7	0.1	80.3	16.3	20.4	50	37	7.33	7.2
30	X24-S3-42-A	15.4	78.5	0.9	0.0	79.3	16.5	20.9	52	36	7.29	11.4
	X24-M-42-A	15.1	79.5	1.0	0.0	80.3	16.4	20.5	50	36	7.31	9.7

Note: X24: S3 + M probably mis-labeled : see pH + lactate values

Continued to page

SIGNATURE

DATE

Continued from page

DAYTIME	STOPWATCH	Watts	HR	SPO <sub>2</sub>	ALT	EVENT / COMMENT
17:43	Ø	Ø	88	89	4200	Rest
5	30"		83	90		
	1'		89	86		
	1'30"		95	86		
	2'		90	90		
	2'30"		92	91		
10	Ø	3', 60W	97	96		
	30"	3'30	128	95		
	1'	4'	130	90		
	1'30"	4'30"	120	87		
	2'	5'	127	89		
	2'30"	5'30	132	90		
15	3'Ø	6', 120W	141	89		
	30"	6'30	151	88		
	1'Ø	7', 150W	162	89		
	30"Ø	7'30	172	85		
	30"	8'	176	84		
20	Ø	8'30	178	87		(S) ABG 8'20" 180W
		8'45	182	87		(M) ABG 8'45" 195W
	8:55	stop				
17:52		could not continue				▼

25	SAMPLE ID	HD %SAT	CO MET %SAT	[O <sub>2</sub> ] CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	Lact	BE	HCT
	X25-R-42-A	15.4	83.4	0.9 0.2	84.3	17.6	20.9	51	36	7.43 1.2 +0.0
	X25-S-42-A	16.2	82.6	0.6 0.2	83.2	18.3	22.0	53	32	7.36 7.6 -6.2
	X25-M-42-A	16.8	80.8	1.3 0.1	82.0	18.6	22.6	52	32	7.34 9.6 -7.3

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

37-12163 - 68  
BOOK PAGE

PB 443 T° 25  
9/26/13 RH% 19

END THURSDAY  
9/26/13

TITLE X26 SUBJECT TIBETAN MALE PROJECT HI 167 WT 50 AGE 22

Continued from page

TIME	STOPWATCH	WATTS	HR	PO2	ALT	EVENT / comments
5:06	0'	0	89	88	4200	Rest
	30"		90	86		
5	1'		87	89		
	1'30"		85	86		
	2'		83	89		
	2'30"		89	80		
0	3'	60W	79	86		ABG → REST
-30'	3'30"		116	90		
	4'		118	87		
1'30"	4'30		125	84		
	5'		120	85		
2'30	5'30		132	86		
-3'0	6'	120W	136	84		
30"	6'30		152	82		
7	7'	135W	159	81	S1	ABG 135W 7'09
	7'15"	150W	162	80	S2	ABG 7'30" 0150W
	7'45"		164	80	M	ABG 7'45" 0150W
20	8'50"	Stop, could not continue				✓

SAMPLE ID	Hb	%SAT	CO MET	%SAT	[O <sub>2</sub> ] CAP	Po <sub>2</sub>	Pco <sub>2</sub>	PH	BAC	BE	HCT
X26-R-42-A	13.2	84.6	1.1	0.0	85.5	15.4	18.0	52	34	7.43	0.8 -1.1 47
X26-S <sub>1</sub> -42-A	13.9	77.8	0.6	0.0	78.2	14.8	19.0	47	33	7.39	4.6 -4.0 49
X26-S <sub>2</sub> -42-A	14.1	80.7	0.9	0.1	81.5	15.6	19.1	48	31	7.40	5.2 -4.3 53
X26-M-42-A	14.0	79.8	0.5	0.1	80.3	15.3	19.0	48	31	7.39	5.7 -4.9 52

30	X27-R-22-V	12.5	56.1	0.5	0.0	56.4	9.6	17.1	46	7.33	1.8	-1.9	38
7.	X27-R-22-A	13.8	93.8	1.2	0.0	95.0	17.7	18.7	74	37	7.39	0.6	-2.0 61
200m	X27-S <sub>1</sub> -22-A	14.3	91.8	1.0	0.0	92.8	18.0	19.4	70	35	7.31	6.4	-7.8 43
127	X27-S <sub>2</sub> -22-A	14.0	91.6	0.4	0.0	91.9	17.5	19.1	69	37	7.29	6.9	-8.0 61
35	X27-S <sub>3</sub> -22-A	13.6	90.8	0.3	0.3	91.4	17.0	18.6	69	37	7.28	7.5	-8.5 62
X27-M-22-A	14.1	91.7	0.4	0.0	92.1	17.7	19.2	70	35	7.27	8.4	-9.7 61	
X27-M-22-V	12.4	91.8	0.4	0.0	92.1	15.5	16.9	71	32	7.25	8.7	-12.1 42	

SIGNATURE

DATE

Hb by Hb meter at Rat 14.1 Het 45%

TITLE X27 SUBJECT TIBETAN FEMALE PROJECT HT 160 WT 59 AGE 21

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	P <sub>SaO<sub>2</sub></sub>	ALI 2200)	ENVENT/comm
5	11:12						
	11:19	Ø	Ø	96	96		Venous sample
	"30"			95	95		
	1'			100	95		
	1'30			97	95		
10	2'			93	95		Art sample & Rest
	2'30"			95	96		
	Ø	3'	45W	105	97		
	30"	3'30"		132	97		
	1'0	4'	60W	128	95		
15	30'	4'30"		138	96		
	1'	5'					stop back adjust
	1'30	5'30	60W	114			bike
	2'	6		119	96		
20	2'30"	6'30	45W				not use to biking
	30"	7'		142	96		
	1'	7'30"		144	95		
	1'30"	8'		149	96		
	Ø	9'	90W	150	96		
25	30"	9'30"		162	96		'trouble to get
	1'	10'	120W	165	95		her to bike smoothly
	30"	10'30					stop to tape
	11'						shoes to pedals
	11'30			143	95		
30	Ø	12'	60W	148	96		
	30"	12'30		156	97		
	1'0	13'00	90W	167	95		
	30"	13'00		171	94		
	Ø	14'00	120W				
35	14'30						
	15'01		135W				✓ ABG
	15'40			180	94		ABG
	15'58	stop					ABG

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

BP: 99/69 - 70

PB 585 T° 23 RH% 10 9/27/13

BOOK PAGE

TITLE X28 SUBJ: FEMALE TIBETAN PROJECT HT 60 WT 52 AGE 19

Continued from page

DAY/TIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	AIR	EVENT/Comments
12:04	0		84	97	(2200)	Venous taken
	30		81	97		
5	1'	Ø	78	97		
	1'30"		72	97		
	2'		74	96		
	2'30"		84	97		
10	3'	45W	97	97		
	3'30"		125	98		
	4'		126	97		
	1'30"	430"	132	97		
	2'		139	96		
	2'30"	530"	146	96		
15	3' Ø	90W	146	97		
	30		159	97		
	6'		171	96		
	6'30"		178	97	S, ABG	
	7'		180	97	M ABG	
20	7'30'					
	7'45'					
	7:50	stop				
	9:05'					

Venous sample post  
ex.

Could not continue

SAMPLE ID	Hb	%SAT	CO	MET	%O <sub>2</sub> SAT	[O <sub>2</sub> ] CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BE	Hct
X28-R-22-V	12.9	54.5	0.5	0.0	54.8	9.6	17.5	32	48	7.35	1.3	0.1 54
X28-R-22-A	12.6	93.8	1.2	0.1	95.1	16.2	17.0	77	37	7.42	0.5	-0.2 51
X28-S-22-A	13.1	94.6	0.1	0.0	94.7	16.9	17.9	79	38	7.33	5.1	-5.4 48
X28-M-22-A	14.3	93.5	0.6	0.1	94.2	18.3	19.5	82	37	7.34	5.9	-5.2 40
X28-M-22-V	13.5	88.2	0.0	0.0	88.3	16.3	18.5	63	42	7.26	6.7	-8.0 47

Hb by Hb meter at Rest 12.0 Net 38%

35

Continued to page

SIGNATURE

DATE

Continued from page

DAY/TIME	STOPWATCH	WETS	HR	SPo <sub>2</sub>	ALT	EVENT/Comments
12:35	0		65	94	(2200)	Rest Venous sample
	30"	0	74	95		
5	1'		75	94		
	1'30"		68	95		
	2'		68	95		
	2'30"		68	94		
10	3'	45W	71	93		
	30"		96	94		
11	4'		101	93		
130"	4'30"		102	94		
2'	5'		107	92		
2'30"	5'30"		106	95		
15	3'0	90W	106	94		
30"	6'30"		124	96		
1'0	7	105W	134	94		
30" 0	7'30)	120W	154	94		
30"	8'	<del>125W</del>	157	95	8'20" ABG	S <sub>1</sub> 120W
20	10	135W	162	95	8'48 ABG	S <sub>2</sub> 135W
30"	9'01		164	95		
	9:03	Stop / could not continue			just before stop ABG	M 135W

## Unknown Post exercise

SAMPLE ID	Hb	%SAT	CO MET	%SAT	[O <sub>2</sub> ] CAP	Po <sub>2</sub>	PCO <sub>2</sub>	pH	Lact	BG	Hct
X29-R-22-V	9.9	79.1	2.0	0.0	80.7	10.7	13.2	48	38	7.40	0.8 -1.1 37
X29-R-22-A	10.8	95.3	1.4	0.0	96.6	14.1	14.6	75	36	7.42	0.5 -0.7 40
X29-S <sub>1</sub> -22-A	10.4	92.2	2.5	0.0	94.5	13.1	13.9	73	38	7.33	3.6 -5.4 38
X29-S <sub>2</sub> -22-A	10.6	93.4	1.0	0.0	94.8	13.5	14.2	75	38	7.33	4.8 -5.4 39
X29-M-22-A	11.6	93.6	2.0	0.0	95.6	14.9	15.6	77	38	7.33	4.9 -5.4 38
X29-M-22-V	10.9	88.4	3.4	0.0	91.5	13.2	14.5	67	32	7.32	5.5 -7.5 39

Hb at rest 10.4 by Hbometer  
 Hct 33% (Rpt 31%) (Rpt 9.5)

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Bp 111/66 - 72 9/27/13 Pb: 585 T° 23 RH% 9

BOOK PAGE  
TITLE X30 Subj: TIBETAN FEMALE PROJECT H110 WI 64 AGE 20

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	SP02	ALT	ABG/COMMENT
13:05	0	0		68	95	2200	Rest venous sample
	30"			70	95		
	1'			72	96		
	1'30"			64	96		
	2'			64	96		
	2'30"			61	95		
	0	3'	45W	80	96	A	
10	30"	3'30"		102	96	ABG 0 Post	
	1'	4'		93	94		
	1'30"	4'30"		101	94		
	2 1 "	5 "		97	95		
	2'30	5'30 "		98	95		
15	3'0	6'	90W	105	96		
	30"	6'30"	120W	121	95		
	30"	7'		136	95		
	1'	7'30"		153	95	S1 ABG 0 } (20W	
20	1'30"	8'		162	96	S2 ABG 0 } 120W	
	8'10"					M ABG 0 } (20W	
	stop	8'15"					
			could not continue				

13:23

Venous sample postav

	SAMPLE ID	Hb	%SAT	CO	MET	%SAT	[O <sub>2</sub> ] CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BE	HCT
25	X30 R22-V	10.8	31.5	0.0	0.0	31.5	4.7	14.8	20	52	7.32	0.9	0.0 38
	X30 R22-A	12.3	94.0	1.6	0.0	95.5	15.8	16.6	74	37	7.40	0.4	-1.6 40
	X30 S122-A	13.0	93.2	0.3	0.0	93.5	16.6	17.8	73	40	7.33	3.1	-4.5 42
	X30 S222-A	12.5	92.4	0.5	0.0	92.9	15.8	17.0	74	39	7.33	3.9	-4.9 39
	X30 M22-A	12.7	93.4	0.7	0.0	94.1	16.3	17.3	76	39	7.32	4.6	-5.6 41
30	X30 M22-V	11.2	59.5	0.0	0.0	59.5	9.2	15.4	37	54	7.23	4.0	-5.5 42

Heat rest by thermometer 11.0 Hot 35%

Continued to page

SIGNATURE

DATE

TITLE X31 SUBJ: TIBETAN FEMALE PROJECT HT170 WT 59 AGE 18

Continued from page

DAY/TIME	STOPWATCH	WAITS	HR	SPO <sub>2</sub>	ALT	EVENT / comments
13:42	0	0	85	92	(200)	Venous sample
	30"		85	93		e) Rest
	1'		80	95		
	1'30"		81	95		
	2'		82	97		
	2'30"		82	96		ABG e) Rest
10	0	3'	45W			
	30"	3'30"		107	95	
	1"	4'		122	93	
	1'30"	4'30"		127	94	
	2'	5'		131	94	
15	2'30"	5'30"		132	96	
3	3'0	6'	90W	134	94	
	30" 0	6'30	105W	146	96	
	30" 4	7'	120W	154	96	
20	30"	7'30"		160	98	S, ABG } all at 7'51
						S <sub>2</sub> ABG } 120W
	8:01			166	97	M ABG }
	8:05	Stop				

SAMPLE	ID	Hb	%SAT	CO	MET	%SAT	[O <sub>2</sub> ] CAP	P O <sub>2</sub>	P CO <sub>2</sub>	pH	Lact	BE	Hct
X31-R-22-V		11.9	25.9	0.3	0.0	26.0	4.2	16.3	19	51	7.39	0.7	0.9
X31-R-22-A		12.3	95.2	1.2	0.0	96.3	16.0	16.6	77	34	7.41	0.6	-2.4
X31-S <sub>1</sub> -22-A		13.3	94.0	1.0	0.0	95.6	17.1	17.9	83	36	7.34	5.5	-5.7
X31-S <sub>2</sub> -22-A		13.6	94.5	0.6	0.0	95.0	17.6	18.5	81	39	7.32	5.5	-5.6
X31-M-22-A		13.4	94.1	1.4	0.0	95.5	17.2	18.0	81	37	7.33	5.3	-5.8
X31-M-22-V		12.7	65.9	0.9	0.0	66.5	11.4	17.2	40	39	7.34	5.3	-4.4

Hb at rest by Hb meter 12.0

Hct 37%

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE

PROPRIETARY INFORMATION

P: 12/1/74 - 74 9/27/13 PB 584 T° 24 RH% .8

BOOK PAGE

TITLE X32 SUBJ: HAN FEMALE PROJECT HT 158 WT 48 AGE 22

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	SP0 <sub>2</sub>	ALT	EVENT/Comments
14:02		Ø	Ø	74	96	(2200)	Venous Sample
5		30"		80	96		
		1'		75	96		
		1'30"		74	97		
10		2'		74	97		
		2'30"		75	97		
15		3'	45W	82	97		ABG Ø Rest
		3'30"		111	98		
		4'		118	94		
		4'30"		120	95		
20		5'		125	95		
		5'30"		128	95		
25		6'	90W	135	96		
		6'30"	105W	154	95		
		7'	120W	167	95		
30		7'30		171	95		
		8'	135W	176	95		ABG S1
35		8'30		178	96		ABG S2
		8'37		179	97		ABG M
		8:40"	stop				

VENOUS POST EXERCISE

SAMPLE ID	Hb	%SAT	CO	MET	%SAT	[O <sub>2</sub> ] CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BE	Hct
X32-R-22-V	11.7	52.4	0.2	0.0	52.5	8.4	16.0	30	44	7.37	1.6	-0.1
X32-R-22-A	12.3	94.4	1.5	0.0	96.4	16.0	16.6	76	34	7.42	1.4	-1.8
X32-S <sub>1</sub> -22-A	12.8	91.9	1.1	0.0	92.9	16.1	17.4	72	37	7.32	7.0	-7.7
X32-S <sub>2</sub> -22-A	13.2	90.9	1.0	0.0	91.8	16.5	18.0	71	32	7.28	10.5	-10.5
X32-M-22-A	13.7	92.1	0.2	0.9	92.3	17.3	18.8	72	30	7.27	11.6	-11.7
X32-W-22-V	12.9	89.5	1.4	0.0	90.8	15.9	17.5	70	28	7.22	12.2	-14.7

Hb at rest by Hb meter 12.5

Hct 38%

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE

Continued from page

SUBJECT 27 TIBETAN FEMALE

previous max, HR air: 135W, 180HR

## Daytime Time Watts Condition HR SP02

5	14:40	0:00	start 45w	Air	109	97
		1:00			138	95
		2:00			147	96
		3:00	start 105	02	156	97
		3:30			166	100
10		4:10	start 120	02	163	100
		5:00	start 135	02	172	100
		5:20	subject		173	100

could not continue

SUBJECT 28 TIBETAN FEMALE

previous max, HR air: 105W, 180HR

15						
20						

SUBJECT 29 TIBETAN FEMALE

25						
30						
35						

SIGNATURE

Continued to page

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Bp: 111/69 - 76

9/27/13

PB 443 T° 24 R H 10%

BOOK PAGE

TITLE X27 SUBJECT TIBET FEMALE PROJECT HT 160 WT 59 AGE 21

Continued from page

	DAY/TIME	STOPWATCH	WATTS	HR	SP02	ALT	EVENT / COMMENT
17:00	Ø	Ø	120	82	4200		Rest
30"		119	88				
1'		114	87				
1'30"		109	87				
2'		114	85				
2'30"							ABG @ Rest
Ø	3'	45W	132	89			
30"	3'30"		149	89			
1'	41		150	84			
1'30	4'30		150	84			
2'	5'		154	82			
2'30	5'30		155	80			
3'	6'	90W	158	81			
30"	6'30	105W	164	81			
30"	7'		167	77			
1'6	7'30	120W	173	77			
30"	8'		173	74			
1'	8'30		177	75			
8'35	135W		179	78			
8'57	stop		180	77			

could not continue

S1 ABG Ø 105W  
S2 ABG Ø } 120W  
S3 ABG Ø } 120W  
M 8:52 ABG Ø 135W

25	SAMPLE ID	Hb	%SAT	CO	MET	%SAT	[O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BF	Hct
	X27-R-42-A	13.9	80.0	2.8	0.2	83.3	15.6	18.8	51	36	7.44	1.7	0.7	(54)
3	X27-S-42-A	12.9	77.0	0.0	0.0	77.0	13.9	18.0	46	36	7.39	5.5	-2.6	46
→	X27-S2-42-A	15.1	69.9	2.3	0.0	71.5	14.7	20.6	44	39	7.36	6.9	-3.1	51
30	X27-S3-42-A	12.6	73.9	1.0	0.0	74.7	13.0	17.4	45	37	7.36	7.9	-4.0	51
	X27-M-42-A	13.7	74.3	2.0	0.0	75.9	14.2	15.7	47	35	7.36	9.0	-4.9	49

35

Continued to page

SIGNATURE

DATE

TITLE X28 SUBJ. TIBET FEMALE PROJECT HI160 WT 52 AGE 19

Continued from page

DAY/TIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT/COMMENTS
17:25	0	0	93	86	4200	Rest
5	30"		95	85		
	1'		91	85		
10	1'30"		88	85		
	2'		90	84		
15	2'30"		91	83		ABG & Rest
	3'	45W	129	85		
20	3'30"		145	84		
	4'		154	83		
25	4'30"		153	85		
	5'		159	83		
30	5'30"	90W	160	85		
	6'		167	87		
35	6'30"	105W	173	86	S, ABG 6'13" 90W	
	6'40"	stop			M ABG 6'13" 105W	

25 SAMPLE ID	Hb	%SAT	CO	MET	%SAT	[O <sub>2</sub> ]	cap	Po <sub>2</sub>	Pco <sub>2</sub>	pH	lact	BE	HCT
X28-R-42-A	12.3	83.8	1.6	0.0	85.1	14.3	16.8	52	35	7.44	1.2	0.0	42
X28-S-42-A	13.6	84.7	0.5	0.0	85.2	16.0	18.8	55	33	7.42	5.3	-2.3	45
X28-M-42-A	13.2	84.7	1.2	0.0	85.7	15.6	18.2	55	34	7.41	6.2	-2.3	47

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

BP: 101/59 - 78

BOOK

PAGE

9/27/13

PB: 443 T° 25

RH% 10

TITLE X29 SUBJ. TIBET FEMALE PROJECT HT 163 WT 51 AGE 22

Continued from page

	DAYTIME	STOPWATCH	WATTS	HR	SP02	ALT (4200)	COMMENT
17:45	0	Ø	95	86			Rest
	30"		91	85			
5	1'		81	87			
	1'30"		75	87			
	21		84	93			
	2'30"		83	90			
10	3'	45W	105	83			
	3'30"		109	86			
	4'		109	87			
	1'30"	4'30"	108	87			
	2"	5	116	87			
15	2'30"	5'30"	116	87			
	3'0"	6'	116	86			
	30"	6'30"	127	87			
	7"	105W					
	7'06"		131	87	Si	6'45' ABG 3'60W	
20	7'10"	stop			M	ABG 105W	

SAMPLE ID	Hb	%SAT	CO MET	%SAT [O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	lact	BF	NET
X29-R-42-A	9.7	89.6	1.4	0.0	90.9	12.1	13.3	60	31	7.48	1.3 0.2 39
X29-S-42-A	10.3	83.7	2.0	0.0	85.4	12.0	14.0	53	33	7.43	3.8 -1.7 43
X29-M-42-A	10.3	83.5	1.1	0.0	84.4	12.0	14.2	53	35	7.42	4.4 -1.3 40

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

TITLE X30 subj. Tibet Female PROJECT HT 170 WT 64 AGE 20

Continued from page

	DAYTIME	STSWATCH	WATTS	HR	SPO2	ALI	EVENT/Comment
18:20	0'			94	80	(4200)	Rest
5	30"	0'		97	80		
	1"			86	85		
	1'30"			84	84		ABG o rest
	0'	2'	45W	85	82		
	30"	2'30		114	80		
10	1'	3'		119	76		
	1'30	3'30		128	76		
	2'	4'		137	74		
	2'30"	4'30		140	74		
	3'0'	5'	90W	145	77		
15	30"	5'30"		156	77		
	1'0"	6"	105W	167	74		ABG o 90
	6:20	"		168	74		ABG o 105W
	6:15"	stop					

SAMPLE ID	Hb	%SAT	CO	MET	%SAT	[O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Po <sub>2</sub>	pH	Lact	BE	Hct
X30-R-42A	10.8	81.5	1.2	0.0	82.5	12.2	14.8	51	38	7.44	1.2	1.7	49
X30-S-42A	11.3	76.4	0.0	0.0	76.4	12.1	15.8	46	38	7.41	4.0	-0.4	37
X30-M-42A	11.6	74.8	0.5	0.0	75.2	12.1	16.0	46	36	7.41	4.9	-1.5	39

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

BP 117/79 - 80

9/27/73

PB 443 T° 25 RH% 12

BOOK PAGE

TITLE X-31 SUBJ. TIBETAN FEMALE PROJECT HT 170 WT 59 AGE 18

Continued from page

	DAY/TIME	STOPWATCH	WATTS	HR	SPO2	ALT	EVENTS/comm
18:59	Ø	Ø	Ø	79	83	(4200)	Rest
5	1'30"	2'	80	79	84		
	2'30	3'	81	81	83		ABG 2 Rest
10	30'	3'30"	45W	79	86		
	1'	4'	111	86			
15	1'30"	4'30"	122	82			
	2'	5'	128	80			
	2'30"	5'30"	128	84			
	3'0	6'	136	86			
20	30", Ø	6'30"	90W	138	83		
	30"	7'	154	84			
	1'	7'30	161	87	S1 ABG		
	7'40"	stop	163	85	S2 ABG		105W
	7:45"		163	86	M ABG		

could not continue

SAMPLE ID	Hb	%SAT	CO MET	%SAT [O <sub>2</sub> ]	CAP PO <sub>2</sub>	Pco <sub>2</sub>	pH	lact	BE	Hct
X31-R-42-A	12.5	83.2	1.3	0.0	84.3	14.5	17.2	52	36	7.43 1.2 -0.1 42
X31-S1-42-A	12.5	87.0	0.6	0.0	87.6	15.2	17.3	57	32	7.41 5.2 -3.4 45
X31-S2-42-A	13.2	84.9	1.5	0.0	86.2	15.6	18.1	56	34	7.39 6.0 -3.6 43
X31-M-42-A	12.9	85.8	1.3	0.0	86.9	15.4	17.7	57	32	7.39 6.9 -4.5 46

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Continued from page

	DAY/TIME	STOP WATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENTS/COMMENTS
19.20	30"	0		97	88	4200	Rest
	1'			98	88		
5	1'30"			92	87		
	2'			90	88		
	2'30"			93	87		
	3'	45W		116	88		
30"	3'30"			124	84		
10	4'			131	81		
1'30"	4'30"			137	82		
2'	5'			140	83		
2'30"	5'30"			144	82		
3'0	6'	0 105W		153	83		ABG S <sub>1</sub> 105W
30"	6'30.			161	82		ABG S <sub>2</sub>
10	7'	120W		169	79		
30'	7'30			173	81		
15	7'36	stop					
20		could not continue					

	SAMPLE ID	Hb	%SAT	CO	MET	%SAT	[O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	lact	BE	NET
X32-R-42-A	11.5	83.9	2.2	0.0	85.7	13.4	15.7	54	30	7.46	1.8	-1.6	40	
X32-S <sub>1</sub> -42-A	12.1	79.0	1.0	0.0	79.8	13.2	16.6	50	29	7.49	6.4	-5.0	43	
X32-S <sub>2</sub> -42-A	12.6	77.5	0.6	0.0	78.0	13.6	17.4	49	30	7.37	8.4	-6.8	43	
X32-M-42-A	13.1	76.3	1.9	0.0	77.8	13.9	12.7	49	29	7.37	9.8	-7.1	44	
X33-R-42-A	13.3	81.4	0.7	0.8	82.1	15.1	18.4	48	36	7.44	0.9	0.6	42	
X33-S <sub>1</sub> -42-A	14.9	77.8	1.4	0.2	79.1	16.1	20.4	48	35	7.36	6.5	-4.9	48	
X33-S <sub>2</sub> -42-A	14.3	80.9	0.0	0.0	80.9	16.1	19.9	48	34	7.35	7.8	-5.9	51	
X33M-42-A	14.6	80.0	0.0	0.1	80.1	16.2	20.2	48	32	7.33	8.8	-7.9	44	
X33-S-42-AR	15.2	76.0	1.4	0.0	77.1	16.0	20.8	44	33	7.39	5.6	-4.0	47	
X33-M-42-AR	14.1	77.2	0.0	0.0	77.2	15.1	19.6	45	35	7.38	7.1	-4.1	50	
X33-M-22-V	12.7	43.6	0.0	0.9	44.0	7.7	17.5	25	43	7.40	2.2	1.5	44	
X33-R-22-V	13.7	38.0	0.0	0.3	38.1	7.2	18.9	24	48	7.37	1.7	1.7	43	
X33-R-22-A	13.0	94.1	0.0	0.1	94.2	17.0	18.1	73	37	7.43	1.4	0.5	41	
X33-S <sub>1</sub> -22-A	15.6	93.0	0.0	1.0	93.9	20.2	21.5	76	39	7.40	4.6	-0.5	45	
X33-S <sub>2</sub> -22-A	14.5	93.1	0.0	0.8	93.9	18.8	20.0	71	40	7.37	Continued to page 2.0	46		
SIGNATURE X33-M-22-A	14.9	92.2	0.0	0.0	92.2	19.1	20.0	75	38	7.39	5.1	-1.7	51	

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

10/17/13  
BP 110/79

- 82

START SAT 9/28/13

PB 443 T<sub>21</sub>

Rt% / 10

BOOK PAGE

TITLE X33 SUBJ. HAN FEMALE

PROJECT HT 153 WT 50 AGE 22

Continued from page

DAY/TIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT/COMMENT
11:50	0		97	84	(4200)	
1'30"	1'30"		87	84		Rest
2'	2'		83	85		
2'30"	2'30"		85	79		
3'	3'					ABG O Rest
3'30"	3'30"	45W	100	85		
4'	4'		116	80		
4'30"	4'30"		139	72		
5'	5'		155	76		V. difficult to pedal
5'30"	5'30"		164	79		
6'	6'		163	76		
6'30"	6'30"	75W	167	89		
7'	7'		167	81		
7'30"	7'30"	90	172	80	S, ABG O 75W	
8'	8'	90W	177	80		
8'22"	8'22"		177	80	ABG sample	
9'	9'		179	78	SABG sample S	
9'15"	9'15"	stop		90W	[ABG sample end M before stop.]	

Sa + M had air  
bubbles

REPEAT X 3 + VO <sub>2</sub> + QT OR	14:36	0	110	87	Rpted the above run after practising pedalling - much better & less pain
	1'	1'	113	85	
	2'		107	86	
	3'	45W	109	87	
	4'	45W	150	81	
	5'		162	78	
	6'	75W	165	78	ABG S, O 75W
	6'30"	6'30"	170	76	
	7'		175	77	
	7'21	90W	176	76	ABG M O 90W
	8'	stop	179	75	
	8'15"	stop			

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

BLOOD GASES TABULATED ON PREVIOUS PAGE

PROTECTED INFORMATION

Continued from page

DAY/TIME	STOPWATCH	WAITS	HR	SPO <sub>2</sub>	ALT	BUN/COMA
12:25	0	0	105	93	4200	Post
	30		100	91		
5	1'		85	92		
	1'30"		79	90		
	2'		83	91		
	2'30"		77	89		
10	3'	45W	87	89		
	3'30"		129	89		
	4'		135	88		
	4'30"		136	88		
15	5'		148	88		
	5'30"		149	88		
	6'	90W	154	89		
	6'30"		162	86		
20	7'	105W	169	83		
	7'30"		171	86		
	7'45"		174	84	S <sub>1</sub>	ABG o 105W
25	8'	120W	176	85	S <sub>2</sub>	ABG o 120W
	8'00"				S <sub>3</sub>	ABG 120W
	8'50"	135W	179	83		
30	9'05"	stop				ABG o M o

could not continue

SAMPLE ID	Hb	9SAT	CO	MET	9SAT	[O <sub>2</sub> ] CAP	Po <sub>2</sub>	PCO <sub>2</sub>	pH	lact	BEX	HCO <sub>3</sub>
X34-R-42-A	13.3	88.2	0	0.1	88.3	16.4	18.5	55	30	7.46	1.4	-1.6 42
X34-S <sub>1</sub> -42-A	13.1	80.1	1.6	0.0	81.3	14.6	17.9	51	29	7.37	7.2	-7.0 49
X34-S <sub>2</sub> -42-A	13.9	81.8	0.0	0.0	81.8	15.8	19.3	50	29	7.35	8.4	-8.2 45
X34-S <sub>3</sub> -42-A	14.0	80.9	0.0	0.1	81.0	15.8	19.5	50	29	7.34	9.0	-8.7 47
X34-M-42-A	14.3	80.7	0.0	0.2	80.9	16.0	19.9	50	27	7.32	10.4	-10.6 45
X34-R-22-V	12.5	54.4	0.0	0.4	54.7	9.5	17.4	29	39	7.42	1.7	0.8 41
X34-R-22-A	12.8	95.5	0.0	0.2	95.6	17.1	17.8	81	31	7.46	1.4	-0.9 44
X34-S <sub>1</sub> -22-A	14.0	96.0	0.0	0.2	96.2	18.7	19.5	78	33	7.40	4.6	-2.9 48
X34-S <sub>2</sub> -22-A	13.6	94.3	0.0	0.3	94.6	17.8	18.8	77	33	7.40	5.7	-3.5 47
X34-M-22-V	12.3	75.6	0.2	0.0	75.8	13.0	17.1	41	33	7.45	2.5	-0.5 41
X34-M-22-A	(13.8)	(94)	(0.0)	(0.0)	(95)	(18)	(19)	83	31	7.39	7.2	continued to page 7 60

SIGNATURE

DATE

→ Cooximeter data missing - sample not measured  
by mistake butDATE Po<sub>2</sub>, PCO<sub>2</sub> etc were measured

DISCLOSED TO AND UNDERSTOOD BY

PROPRIETARY INFORMATION

22.104/64

- 84

BOOK

PAGE

P.B = 443 T° 24 RH%: 5

SAT SEPT 28

TITLE X35 SUBJ. TIBETAN FEMALE PROJECT HT 151 WT 41 AGE 23

Continued from page

	DAY TIME	STOPWATCH	WATTS	HR	SPO2	Alt.	EVENT / comment
13:00		0'	0'	88	86	(4200)	
		30"		95	85		Rest
5		1"		86	86		
		1'30"		89	86		
		2'		86	86		
		2'30"		85	86		
10		3'	45W	100	84		ABG → Rest bubble
		3'30"		126	79		
		4'		136	74		
		4'30"		152	77		
		5'		155	77		
		5'30"		157	80		
15		6'		162	82		
		6'15"	75W	172			
		6'45"		174	77		
		7'		175	74		
20		7'30"		178	71		ABG sample S1
		8'		178	72	V ABG	— S2
		8'30"		182	69	ABG	M
		9'00"					
	stop 9'02"						
	could not continue						

	SAMPLE ID	Hb	%SAT	CO	MET	%SAT [O <sub>2</sub> ] CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	Bf	Net
25	X35-42-A	13.1	83.8	0.0	0.4	84.1	15.3	18.1	51	34	7.41	1.2 -2.4 44
	X35-S1-42-A	13.0	69.4	0.0	0.1	69.5	12.5	18.0	42	34	7.30	6.1 -8.8 44
	X35-S2-42-A	14.7	69.5	0.8	0.0	70.1	14.2	20.2	42	35	7.29	7.3 -8.9 48
	X35-M-42-A	14.7	67.6	0.0	0.1	67.7	13.8	20.4	43	34	7.28	9.5 -9.8 44

30

35

Continued to page

SIGNATURE

DATE

TITLE X36 SUBJ-TIBETAN FEMALE PROJECT HI 155 WI 44 AGE 21

Continued from page

DAY/TIME	SPO2WATCH	WATS	HR	SPO2	ALT	EVENI/Comments
0' 30"	3'				4200	
1'	3'30	0'	107	86		Rest
1'30"	4'		111	87		
2'	4'30"		101	86		ABG o Rest
2'30"	5'		100	87		
3' 0"	5'30"		106	87		
3' 0"	6'	60W	118	87		
3'30"	6'30"		148	87		
1'	7'		160	84		
1'30"	7'30		158	84		
2'	8'		164	86		
2'30"	8'30		166	87		
3' 0"	9'	75W	170	87		
3' 0"	9'30"		175	86		
1'	9'45	75W				ABG - S
0'	10'	90W	179	84		stop / start
30'	10'30		179	88		
1'	11'		182	88		
11'20	Stop		183			
Venous sample taken after stopping for lactate						
(could not continue)						
no blood samples at V <sub>O<sub>2</sub> MAX</sub>						

SAMPLE	Hb	%SAT	CO	MET	%SAT [O <sub>2</sub> ] CAP	P <sub>O<sub>2</sub></sub>	P <sub>CO<sub>2</sub></sub>	pH	lact	BE	HCT
X36-R-42-A	13.4	84.1	1.0	0.2	85.2	15.7	18.4	50	33	7.45	1.6
X36-S-42-A	13.6	83.9	0.0	0.5	84.3	15.9	18.9	54	31	7.36	8.5
X36-M-42-V	13.9	54.8	0.0	0.2	54.9	10.6	19.4	33	38	7.28	9.0

↑

\* Arterial line failed at V<sub>O<sub>2</sub> MAX</sub> & subject withdrew from rest of the study, so there are NO data at 2200m at all and NO arterial data right at V<sub>O<sub>2</sub> MAX</sub> itself

Continued to page

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE

PROPRIETARY INFORMATION

Bp:114/77

- 86

BOOK

PAGE

PB: 443 T<sup>o</sup> 23 RH% 6

SAT. SEPT 28

TITLE X37 SUBJ. TIBETAN FEMALE PROJECT HT/54 WT 53.5 AGE 21

Continued from page

DAY/TIME	STOPWATCH	WATS	HR	SP0 <sub>2</sub>	ALT	EVENT/COMMENT
14:06	0'	Ø	90	97	4200	Rest
	30"		86	92		
5	1'		88	92		
	1'30"		85	91		
10	2'		87	91		
	2'30"		86	91		
15	3'	45W	90	91		
	3'30"		123	85		
20	4'		129	85		
	4'30"		132	85		
25	5'		134	87		
	5'30"		134	88		
30	6'	90W	137	89		
	6'30"	105W	152	87		
35	7'		156	85	S	SAMPLE ABG
	7'30"		164	86	(105)	M SAMPLE ABG
40	7'40"	Stop				
45		could not continue				

SAMPLE ID	Hb	%SAT	CO	MET	%SAT [O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BF	Hct
X37-R-42-A	13.1	86.1	0.7	0.3	86.9	15.7	18.0	52	32	7.45	0.9	-1.0
X37-S-42-A	14.1	82.5	0.1	0.0	82.6	16.2	19.6	50	32	7.38	5.6	-5.2
X37-M-42-A	13.5	82.0	0.2	0.5	82.6	15.3	18.6	51	32	7.37	6.4	-5.7

Continued to page

SIGNATURE

DATE

Continued from page

SUBJECT X33 HAN FEMALEprevious max<sup>4200</sup>, HR: 90W, 179

TIME Watts Condition HR SP02

0:00 start 45W Air 125 96

1:00 154 95

2:00 165 96

3:00 start 90W 02 125 95

3:20 171 100

4:00 start 105W 02 174 100

4:30 180 100

5:00 start 120W 02 182 100

subject had to stop - could not continue

SUBJECT X34 TIBETAN FEMALEprevious max<sup>4200</sup>, HR: 135W, 179

TIME Watts Condition HR SP02

0:00 start 45W Air 119 99

0:30 138 96

1:00 143 97

2:00 150 97

3:00 start 120W 02 158 96

3:30 165 100

4:00 start 135W 02 169 100

4:30 171 100

5:00 start 150W 02 174 100

subject could not continue

SUBJECT X35 TIBETAN FEMALEprevious max<sup>4200</sup>, HR: 90, 182

TIME Watts Condition HR SP02

0:00 start 45W Air - -

0:30 126 90

1:00 131 91

2:00 139 91

3:00 start 75W 02 140 92

3:30 start 105W 02 148 100 98

4:00 159 98

SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROJECT

PROPRIETARY INFORMATION

SUBJECT X37 TIBETAN FEMALE

previous max 4200, HR: 105W, 166

Daytime TIME Watts Condition HR SP02

16:51 0:00 start 45W Air 102 97

1:00 114 95

2:00 121 96

3:00 start 90W 02 122 95

3:15 130 99

3:30 132 100

4:00 start 105W 02 134 99

4:30 145 100

5:00 start 120W 02 149 100

5:30 161 100

5:45 subject could not 166 100 continue

No 100% O2 study for SUBJECT X36

- arterial line fell out during

4200m experiment

Subject X35 continue

5:00 start 120W 02 167 100

5:30 subject could 167 99

not continue

Continued to page

BP: 88/69

9/28/13 PB 583 T° 22 RH% 24

- 88

BOOK

PAGE

TITLE X33 SUBJ. HAN FEMALE

PROJECT #1 153 WT 50 AGE 22

Continued from page

	DAYTIME	STOPWATCH	WATTS	H/R	SPO2	ALT	EVENT/COMMENTS
						2200	
17:19							Venous blood
17:23	0'			106	91		
	30"			107	90		
	1"			103	99		
	1'30"			103	87		
	2'			106	89		
10	2'30"			102	89		ABG post
	3'	45W		111	90		
	30"	3'30"		126	89		
	1"	4'		142	90		
	2'130"	4'30"		149	90		
15	2'	5'		152	90		
	2'30"	5'30"		159	90		
	3'0"	6'	90W	152	91		
	30"	6'30"		166	92	S1	ABG post 90W
	1"	7'	105W	173	93	S2	ABG post 90W
20	30"	7'30		180	94	M	ABG post 105W
		7'35 stop					could not continue. Veno blood sample

Venous Sample  
post exercise

Continued to page

SIGNATURE

DATE

TITLE X34 SUBJ. TIBETAN FEMALE PROJECT HI 170 WT 63 AGE 20  
 Continued from page

	DAYTIME	STOPWATCH	WAITS	HR	SPO <sub>2</sub>	A.T.	EVENT/comm
5							(200)
10	17:40						Venous sample
15		0	0	106	95		Rest
20		30"		99	95		
25		1"		106	96		
30		1'30"		105	96		
35		2'		98	95		
40		2'30"		86	96		ABG e) Post
45		3'	45W				
50		3'30"		128	96		
55		4'		131	95		
60		4'30"		141	96		
65		5'		148	96		
70		5'30"		146	95		
75		6'	90W	156	96		
80		6'30"		161	96		Venous ABG
85		7'		173	96		
90		7'15"	105W				
95		7'45"	120W	176	96		ABG
100		8'15"	135W				
105			could not continue	181	96		ABG M d 135W
110							bubbles. Venous sample
115							18:25

Venous Sample post-ex

Continued to page	
SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE
PROPRIETARY INFORMATION	

95/51

9/28/13

Bp P<sub>B</sub>: 583

T° 22

RH% 24

BOOK

PAGE

TITLE X35 SUBJ. TIBETAN FEMALE PROJECT HT 151 WT 41 AGE 23

Continued from page

	DAYTIME	STOPWATCH	WAITS	+R	SPO <sub>2</sub>	AIR EVENT/comm
						Read Venous Sample
						(2200)
5	18:10	0	0	100	96	
	30'	0		101	97	
	1'			93	98	
	1'30"			90	97	
	2'			91	97	
10	2'30"			90	97	ABG Ø Read
	Ø	3'	45W	99	97	
	36"	3'30'		126	97	
	1"	41"		136	96	
	1'30"	4'20"		142	97	
15	2'	5'		144	96	
	2'30"	5'30"				
	3'Ø	6'	90W	145	95	
	30"	6'30"		153	95	ABG Ø 90W, S <sub>i</sub>
	1'Ø	7'	105W	164	96	ABG Ø 105W S <sub>a</sub>
20	30"	7'30"		168	95	ABG Ø 105W(M)
	7'40"	stop		170		

could not continue

venous sample at 18:50

25

18:50

Uphaus post PK.

SAMPLE ID	Hb	%SAT	CO	MET	%SAT	[O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	lact	BE	MET
X35-R-22-V	12.2	51.3	0.0	0.2	51.4	8.7	16.9	30	47	7.35	1.7	-0.1	40
X35-R-22-A	12.2	93.7	0.0	0.2	93.9	15.9	16.9	73	36	7.40	1.5	-2.0	44
X35-S <sub>1</sub> -22-A	13.4	90.7	0.0	0.5	91.2	16.9	18.5	68	38	7.36	3.6	-3.6	44
X35-S <sub>2</sub> -22-A	12.9	91.4	0.0	0.4	91.7	16.4	17.9	70	37	7.36	4.3	-4.0	45
X35-M-22-A	13.5	90.1	0.6	0.2	90.8	16.9	18.6	70	38	7.35	5.0	-4.2	47
X35-M-22-V	12.5	72.0	0.0	0.5	72.3	12.5	17.3	42	43	7.37	2.2	-0.6	43

35

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

Continued from page

	DAYTIME	STOPWATCH	WAITS	HR	SPO <sub>2</sub>	ALT	Event/Comments
5	18:35	Ø	Ø			2200	Venous sample
10		Ø		71	100		
15		30"		78	99		
20		1'		79	99		
25		1'30"		75	99		
30		2'		82	100		
35		2'30"		74	99		
40	Ø	3'	45W	68	99		
45	30"	3'30"		69	93		
50	1'	4'		103	99		
55	1'30"	4'30"		111	98		
60	2'	5'		114	100		
65	2'30"	5'30"		112	98		
70	3'Ø	6'	90W	118	99		
75	30"Ø	6'30"	105W	131	98		
80	7'	7'4"		143	97	ABG	S <sub>1</sub> Ø 105W
85	30"	7'30"	120W	159	98	ABG	S <sub>2</sub> 120W
90		8'		163	98	ABG	M 120W
95		8'10"	stop				

	SAMPLE ID	Hb	%SAT	CO	MET	%SAT	[O <sub>2</sub> ]	CAP	Po <sub>2</sub>	Pco <sub>2</sub>	pH	Lact	BE	Hct
25	X37-R-22-V	12.2	38.8	0.0	0.3	38.9	6.6	16.9	25	53	7.32	1.6	0.4	41
30	X37-R-22-A	12.0	95.1	0.0	0.3	95.4	15.9	16.7	79	35	7.43	0.9	-0.5	53
35	X37-S1-22-A	13.5	94.5	0.2	0.0	94.7	17.7	18.7	76	36	7.36	4.4	-4.5	47
40	X37-S2-22-A	13.1	93.5	0.2	0.0	93.7	17.0	18.1	75	36	7.35	5.4	-5.0	47
45	X37-M-22-A	13.5	94.2	0.0	0.0	94.2	17.6	18.7	77	34	7.35	6.4	-5.9	47
50	X37 M-22-V	13.3	25.8	0.0	0.0	25.8	4.8	18.5	18	47	7.34	2.9	-0.9	45

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

BP: 99/66

9/28/13

Repeat CO + VO<sub>2</sub> NO Bloodgases

PB: 583 T°: 22 RH%: 24

BOOK

- 92

PAGE

TITLE X15 SUBJ.HAN Female

PROJECT HT: 155 WT: 42.5 AGE: 21

Continued from page

DAYTIME	STROWATCH	WATTS	HR	O <sub>2</sub> SAT	ALT (2200)	EVENING
19:19	0'	0'	79	97		Same
	30"		80	97		Rest
5	1'		78	97		
	1'30"		75	97		
	2'		74	96		
	2'30"		76	95		
10	0'	30W	116	96		
	30"	3'30"				
	1'	4'	121	96		
	1'30"	4'30"	119	97		
	2'	5'	121	96		
	2'30"	5'30"	120	97		
15	3'	6'	122	97		
	3'30"	6'30"	125	97		
	4'	7'	135	95		
	30"	7'30"	141	97		
	1'0	8'	153	97		
20	30"	90W	167	96		
	1'	9'				
	1'15	9'10"	176	99		
	9'30"					

X15

BP: 98/60

30

35

78 84

(4200)

9/29/13

PB: 443

22°

25%

0'		
1'		
2'	30W	
3'		
4'		
4'30"	75W	
5'		
5'30"	90W	
6'		
6'30"	shy	

Continued to page

SIGNATURE

DATE

Bp 107/61 9/29/30 PB 580 F 21 RH% 22 Radio VO<sub>2</sub>+QT  
 SUBJ-X8 HAN MALE PG 93 AGE 22 HT 171 WT 54

DAYTIME	STOPWATCH	WATTS	HR	SPO <sub>2</sub>	ALT	EVENT Comments
17:36	0 30" 1' 1'30" 2' 2'30" 3' 3'30" 4' 4'30" 5' 5'30" 6' 6'30 7' 7'15" 7'30 8' 8'30" 8'40 9' 9'30	0 60W 90W 105W 120W stop	84 86 92 87 92 91 90 88 88 86 82 78 65 140 159 165 168 171 176 177 179 183	96 96 89 95 95 86 71 73 81 92 79 72 87 — 92 99 98 100 95 98 98 98	2200	Rest
19:30	0 30" 1' 1'30" 2' 2'30" 3' 3'30" 4' 4'30" 5' 5'15" 5'30" 5'35"	0 60W 90W stop	85 86 88 91 100 117 126 130 132 135 139 139 139	84 89 84 89 83 85 86 84 90 90 84 86	4200	Bp 443 22°C RH 25% Bp: 108/80
		de				leg was bothering him. He had to stop due to leg cramps.

BP: 111/72

9/29/30

PG 94

Redo Q<sub>r</sub> + VO<sub>2</sub> only

PB 58 LT° 20 RH 23

SUBJ X9 DAY TIME	STOPWATCH	WATTS	WT 49 HT 157 AGE 21			EVENT / comments
			HR	SPO <sub>2</sub>	ALT 2200	
16:34	0	0	89	95		
	30"	85	86	94		
	1"		89	95		
	1'30"		92	97		
	2'	45w	98	96		
	2'30	95w	109	96		
	3'		114	95		
	3'30"		118	97		
	4'	45w	118	95		
	2'30		124	96		
	3'	5	118	96		
	3'30"	5'30	123	96		
	4'0	6'	126	96		
	30"	6'30	140	97		
	1'	7'	149	96		
	1'30	7'30				
	7'45"	stop	158	96		
19:05	0	0	106	84	(4200)	BP: 111/72
	1		108	84		
	2"	45w	108	83		
	2'30"		128	82		
	3'		138	81		
	3'30"		139	82		
	4'		141	84		
	4'30		142	86		
	5'	95w	145	83		
	6'	90w	155	86		
	6'15"		159			
	6'30"		162	86		
	6'45"		165	88		
	7'	stop	168			

Bp PB  
 443  
 229  
 24%

BP: 113/78

9/29/80

PG 95

redo QT + VO<sub>2</sub> only

BB 581

T° 21

RH

%

21

SUBJ (X13)

HAN FEMALE

HT 163

WT 66

AGE 22

DAY/TIME	STOPWATCH	WAITS	HR	SPO <sub>2</sub>	ALT	Comments
						EVENIS
17:02	0	0	72	95		
	30"		73	95		
	1'	0	76	95		
	1'30"		69	95		
	2'		82	94		
	30"		102	95		
	1'	"	111	95		
	1'30"		117	93		
	2'		114	93		
	30"		115	93		
	4'		118	93		
	5'		119	93		
	5'30"		123	93		
	6'		137	92		
	6'30"		146	92		
	7'		150	93		
	7'15"	105W	154	93		
	7'30"		162	93		
	8'		168	92		
	8'30"	stop				
19:12	1	0	83	88	4200	BP: 124/78
	1'30"		87	86		
	2'	45W	85	86		
	2'30"		121	85		
	3'		130	81		
	3'30"		138	79		
	4'		140	80		
	4'30"		140	76		
	5'		139	71		
	5'30"	75W	149	71		
	6'		158	71		
	6'15"	90W	164	72		
	6'18"	stop				

Bp  
PB 443  
22 T°  
24 %