

STATION 22-10-12

FIELD BOOK No. 81

Surveyor A J Bennett

Containing Surveys in the

Districts of London

County of Middlesex

Date 1892

1892

Table of Versed Sines for each 10 Minutes from 2° to 25° inclusive.
Correction to 100 links for Slope.

Deg.	Min.	Vers. Sin.	Deg.	Min.	Vers. Sin.	Deg.	Min.	Vers. Sin.
2	...	08	10	...	1.52	18	...	4.89
	10	07		10	1.57		10	4.98
	20	08		20	1.62		20	5.07
	30	09		30	1.67		30	5.17
	40	11		40	1.73		40	5.26
	50	12		50	1.78		50	5.35
3	...	14	11	...	1.84	19	...	5.45
	10	15		10	1.89		10	5.54
	20	17		20	1.95		20	5.64
	30	19		30	2.01		30	5.74
	40	20		40	2.07		40	5.83
	50	22		50	2.12		50	5.93
4	...	24	12	...	2.18	20	...	6.08
	10	26		10	2.25		10	6.18
	20	29		20	2.30		20	6.23
	30	31		30	2.37		30	6.33
	40	33		40	2.43		40	6.43
	50	36		50	2.50		50	6.54
5	...	38	13	...	2.56	21	...	6.64
	10	41		10	2.63		10	6.75
	20	43		20	2.69		20	6.85
	30	46		30	2.76		30	6.96
	40	49		40	2.83		40	7.06
	50	52		50	2.90		50	7.17
6	...	55	14	...	2.97	22	...	7.28
	10	58		10	3.04		10	7.39
	20	61		20	3.11		20	7.50
	30	64		30	3.18		30	7.61
	40	68		40	3.26		40	7.72
	50	71		50	3.33		50	7.83
7	...	74	15	...	3.41	23	...	7.95
	10	78		10	3.48		10	8.06
	20	82		20	3.56		20	8.18
	30	86		30	3.64		30	8.29
	40	89		40	3.71		40	8.41
	50	93		50	3.79		50	8.53
8	...	97	16	...	3.87	24	...	8.64
	10	1.01		10	3.95		10	8.76
	20	1.06		20	4.04		20	8.88
	30	1.10		30	4.12		30	9.00
	40	1.14		40	4.20		40	9.12
	50	1.19		50	4.28		50	9.25
9	...	1.23	17	...	4.37	25	...	9.37
	10	1.28		10	4.45		10	9.49
	20	1.32		20	4.54		20	9.62
	30	1.37		30	4.63		30	9.74
	40	1.42		40	4.72		40	9.87
	50	1.47		50	4.80		50	9.99

Table of Versed Sines for each 10 Minutes from 26° to 45° inclusive
—continued.

Deg.	Min.	Vers. Sin.	Deg.	Min.	Vers. Sin.	Deg.	Min.	Vers. Sin.
26	...	10.12	33	...	16.13	40	...	23.39
	10	10.25		10	16.29		10	23.58
	20	10.38		20	16.45		20	23.77
	30	10.51		30	16.61		30	23.96
	40	10.63		40	16.77		40	24.15
	50	10.77		50	16.93		50	24.34
27	...	10.90	34	...	17.10	41	...	24.53
	10	11.03		10	17.26		10	24.72
	20	11.16		20	17.42		20	24.91
	30	11.30		30	17.59		30	25.10
	40	11.43		40	17.75		40	25.30
	50	11.57		50	17.92		50	25.49
28	...	11.70	35	...	18.08	42	...	25.68
	10	11.84		10	18.25		10	25.88
	20	11.98		20	18.42		20	26.08
	30	12.12		30	18.59		30	26.27
	40	12.26		40	18.76		40	26.47
	50	12.40		50	18.93		50	26.67
29	...	12.54	36	...	19.10	43	...	26.86
	10	12.68		10	19.27		10	27.06
	20	12.82		20	19.44		20	27.26
	30	12.96		30	19.61		30	27.46
	40	13.11		40	19.79		40	27.66
	50	13.25		50	19.96		50	27.86
30	...	13.40	37	...	20.14	44	...	28.07
	10	13.54		10	20.31		10	28.27
	20	13.69		20	20.49		20	28.47
	30	13.84		30	20.66		30	28.67
	40	13.98		40	20.84		40	28.88
	50	14.13		50	21.02		50	29.08
31	...	14.28	38	...	21.20	45	...	29.29
	10	14.43		10	21.38			
	20	14.58		20	21.56			
	30	14.73		30	21.74			
	40	14.89		40	21.92			
	50	15.04		50	22.10			
32	...	15.19	39	...	22.28			
	10	15.35		10	22.47			
	20	15.50		20	22.65			
	30	15.66		30	22.83			
	40	15.82		40	23.02			
	50	15.97		50	23.21			

C.B.
1/10/12

2900

1900

900

50

58° 0'

3100

2800

1850

1000

50

349° 4' 30"

6000

4900

Indian Ocean

(444.17
111° 4' 45"

Drift
Sand
hills

Sand hills

(580.16
145° 4' 30"

C.B.
1/10/12

4300

1700

2610

1900

1400

1000

Indian Ocean

(118° 37'
25° 34' 15"

(340.26
86° 21' 50"

Drift
Sand

110° 21' 15"

(132.57
58° 13'

107° 12' 45"

(623.16
155° 49' 30"

23° 59' 45"

F.B. 60. p. 23.

AB
68.

AB
70.

Traverse of Indian Ocean

Cor 9272
08.

A.B.
1/10/14.

Ony-ville

2

10000

Shank

00

21° 38' 15"

40.57
10° 14' 15"

W. Lighthouse.
53° 15'

(611.25
152° 51' 15"

8540

(4)

Connection to Chugor.
p 25.

150

7500

B post
71

7300

50

6300

(279.19
64° 44' 45"

to Cairn B
158° 51' 15"

5300

50

4300

4000

40

3000

150

2000

Low
drift

A.B.
1/10/14

120

1000

00

48° 47'

(683.7
150° 44' 45"

50

7300

? 8300

~~7400~~

7000

Low
Sand
drift
? 8000

6000

? 7000

20

5000

? 6000

100

4000

? 5000

3800

? 4800
Sand
drift

2800

? 3800

Boat
landing

2900

100

Indian Ocean

EAR. 9/1/14.

Ingen
A.B.
1/31/14

AB
2/10/12.

3

300 3700

150 2700

50 1700

1000

50

48° 45' 15"

1400

1100

800

50

84° 47' 0"

3000

200 2000

50 1000

71° 20'

50 3500

150 3000

150 2000

200 1000

50

64° 39' 15"

100 3600

50 2600

500 1600

1000

Saltbrack
flat

Sm. Obs. 2/10/12.
Sun 8h Sun.

176° 25' 0" } alt

176° 35' 40" } 29° 5' 0"

355° 57' 20" } alt

356° 8' 0" } 59° 51' 30"

R. 2. 360° Return 360°

Latitude 21° 51' 0"

340° A3
55° 10' A5

178° 36' 15"

666.12
166° 33'

AB
2/10/12

Ocean

N. Indian

Caribbean
white
sand
hill

Shrimps

Shrimps

1/15
2/10/12

Ocean

4
5000

4300

3300

3000

2000

1000

00

75° 22' 15"

50 4500

(10)

610.15
158° 33' 45"

120 4000

Spindle

120 3000

Southward

150 2000

1/15
2/10/12
Rocky

80 1000

00

47° 56' 16"

80 1500

(3)

Spindle

635.24
158° 51'

20 1000

00

69° 5' 30"

50 6600

B
72

635.38
159° 39' 30"

~~6700~~

Indian Ocean

22 12
6° 55' 30"

200 5800

665.18
158° 14' 30"

4800

Spindle

187° 25' 45"

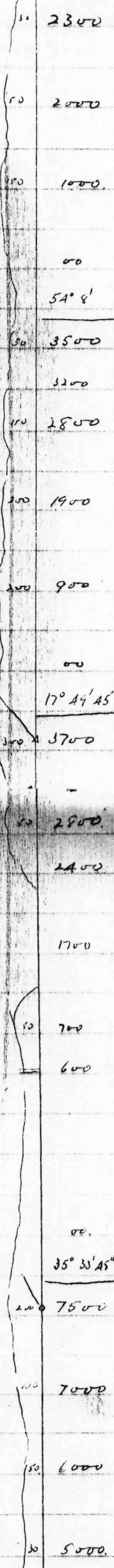
300 3700

11/13
2/4/2

5

680.55
170° 18' 45"

Indian Ocean



Sand
shells

524.50
143° 42' 30"

Govt. Well
(used in light house
construction)

Drift
Sand

649.5
162° 16' 15"

9/13
2/10/2

Drift
Sand

Shells

Tramway to Lighthouse
G.I. Shed.

68.15
24° 13' 45" to Lighthouse
60° 7' 30"

560.47
140° 11' 45"

AB post
73

C1/B
21/10/46

6

1200

50 1300

80 450

00

73° 38'

50 4500

200 5600

100 2700

50 1800

50 400

00

60° 25' 45"

100 2100

1800

50 900

00

71° 46' 45"

50 4500

100 4200

150 3300

150 2400

150 1500

100 900

00

63° 54'

77

(24.34)
122° 33' 30" X

proved
by calc.

4) 129° 34'
- 32° 23' 30"

97R.
14/10/46.

to lighthouse
106° 01' 30" X

667.10
166° 47' 30"

Scarp
ridges

Spur

C1/B
21/10/46

662.57
165° 35' 15"

100 2100

1800

50 900

00

71° 46' 45"

50 4500

100 4200

150 3300

150 2400

150 1500

100 900

00

63° 54'

676.28
169° 7'

Spur
ridge

Indians

11/13/12

7

6150

Spring

100 5100

50 4100

100 3000

Spring

Undulating

Sand

200 2000

1000

00

74° 57' 45"

(546.48
156° 42')

4400

(1)

Creek

4100

4000

Lighthouse

Enclosure

400 3000

2300

Drift sand hills

1500

400

1300

4

600

Bluff face

at range

boundary

146.0

36° 30'

1° 30'

Fence post

74

to lighthouse

159° 46'

00

123° 16'

(17)

11/13/12

Waming Head.

400

4000

300

3700

100

2700

remained here

521.27

180° 21' 45"

(17)

6 wires

500

1913
3/10/12

8

2000

1000

00

50° 21' 45"

670.16
167° 34'

1779

(23)

Drift
Sand
with 2 prisms

700

00

62° 48'

3800

(22)

675.10
168° 47' 30"

5000

2000

1000

Drift
Sand.

00

51° 35' 45"

674.8
168° 32'

2800

(21)

2000

1000

Drift sand
hills

00

63° 41'

678.52
169° 43'

2100

(20)
50

1000

00

73° 21' 15"

653.35
173° 23' 45"

100

6600

(19)

120

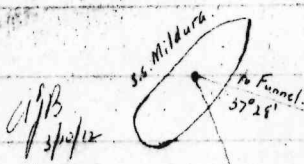
6100

Indian Ocean

1913
3/10/12

Ocean

Indian



North West Cape

Ocean

Indians

Ocean

Indians

Rocky

to lighthouse

2500

1000

1400

500

00

89° 33' 30"

2300

2000

1000

00

48° 17' 15"

1600

1000

00

43° 41'

1200

1000

00

64° 12' 45"

1000

00

60° 51' 15"

3600

2800

2000

(28)

539.9
134° 47' 15"

Skinner
flint.

(29)

554.54
138° 43' 30"

Drift
hill

(30)

701.34
175° 23' 30"

(31)

Drift
hill

Flat.
Skinner
L
Scrub

(32)

706.33
176° 38' 15"

(33)

Post in
75 cairn.

678.1
164° 30' 15"

248° 20' 15"
71.54
17° 54' 30"

C11/13
1/10/11

10

3900

100

Drift

2500

100

Sand
mills

2000

100

1000

100

00

127° 45' 15"

7800

(24)

7400

6400

100

Drift
Sand
mills

5400

100

4400

(200) 4100

C11/13
3/10/12

Sun Obs 3/10/12

Line Ab 20 m

R.O. 360° Return 360°

119° 38' 0" at

119° 47' 40" 26° 6' 0"

299° 12' 40" coast

299° 22' 20" 64° 25' 30"

Latitude 21° 47' 40"

100 3100

2100

Drift
mills

150 1700

100 600

00

156° 57' 30"

100 3700

3300

2300

1500

1000

00

134° 46'

Indian Ocean

Rocky
shoal
water

AB post in
Cairn

631 13
157° 48' 15"

Sun.

Sample
mounds

247° 14' 30"
61° 49'

Light house

to Cairn B(3)
light bad

3900

Drift
Sand
Clubs

GAB
01/10/12

12
3000

2000 100

1000 50

00

226° 53' 15"

11000 50

(24) $\frac{651.13}{162^{\circ} 48' 15''}$

10000 50

9000 50

Unif.
Sand
-beds

8000 50

7000

6400

5400

4400

4000

3000

2000

1000 100

Low
drift
ridges

00

209° 41'

4700 (25) 100

$\frac{665.33}{166^{\circ} 23' 15''}$

3800

2800

2300 AB 77

Exmouth Gulf

Gulf

Exmouth

GAB
01/10/12

9/12
5/10/12

13

5000

2000

Sandy

1000

Low
lying

50

188° 50' 15"

566.49
141° 40'

1000 3300

(36)

Shallow water
rocky bottom
dry at low tide

100 2800

Mangroves

50 1800

Spunk
Sumb.

80 800

100 00

227° 10' 15"

150 4100

605.55
151° 28' 45"

9/12

400 3700

130.0
47° 30'

to Calton B.
241° 5'

Sun Obs 1/10/12
Lune 4h 20m
Rn 360° Return 360°

400 2700

21° 5'

Old cairn
(small)

* 25° 21' 40" } ALT
* 25° 31' 40" } 25° 47' 0"
* 76° 51' 20" } count
* 77° 2' 20" } 64° 46' 30"

Rocky
ledge
200

1600

34° 50'

to Lighthouse
3100

Latitude 21° 51' 30"

50 1000

135.61
9° 42' 46"

to Lighthouse
316° 33'

00

198° 34' 5"
Obs.

150 5600

AB post
78

to Lighthouse
316° 33'

607.9
151° 47' 15"

5400

Low
sandy
ground

100 4400

4100

Sumpsh
marsh

3000

Gulf

Exmouth

Gulf

Exmouth

99B
5/10/12

Exmouth

14

11450

10350

Low lying

Scrub

9350

8350

7350

6350

5350

4950

3950

Low lying

Scrubby

2950

1950

50

950

AB post
75

50

191° 26' 30"

50

3600

(38)

654.30
163° 37' 30"

50

3000

Scrubby

2350

2050

1050

50

175° 4'

664.55
166° 18' 45"

3600

(51)

3000

A.P.B.
7/10/12.

Gulf.

Exmouth

15

3100

2400

2000

1000

00

179° 30' 36"

$\frac{672.16}{169^{\circ} 41'}$

24600

50 (39)

24100

50

23070

22000

21000

20600

Scrub.

A.P.B.
7/10/12.

Gulf

Exmouth

19600

18600

17600

16600

16400

15400

14400

13400

12400

11400

Scrubby

79° 33'

AB post.
80

271° 00' to Cairn B.
to Cairn A.
route - Cairn
doubtful owing
to bad light

at 2 miles flat to range

13.56
28° 20'

to Lighthouse
342° 57' 30"

Scrub.

Low lying

A.B.
6/10/12

Exmouth Gully

16

6000

5800

5500

5000

4000

3000

2000

1000

00

188° 7'

13800

13000

12200

11700

10700

9700

8630

7700

7200

6200

5200

4100

3100

Sand ridge

Sand.

Sand.

$\frac{680.33}{171^{\circ} 23' 15''}$

Sand.

B post
8h

connection to Kubura
sec p. 23

Sand.

$\frac{44.52}{11^{\circ} 13'}$

to high house.

Sand
ridges

A.B.
6/10/12

Exmouth Gully

UyB
9/10/12

17
1000

Sumb.

00
148° 37' 15"

(41) 2700 100

652.45
148° 11' 15"

Gulf

2000

1100

1000

500

400

00

181° 48' 00"

634.25
158° 36' 15"

(41) 4700 88 post.

4000 50

3000 100

2000 50

1000 50

Started
guns.

Check dry

Dense low
Sumb.

Exmouth

Low
water

Sand ridge

UyB
9/10/12

00

203° 12' 15"

(42) 4500 50

702.2
175° 30' 30"

3500 50

2500

2000

1000 50

00

198° 43'

(41) 78.00 100

677.36
157° 24'

7000 50

6000 50

Sand ridge

Sumb.

Gun

Exmouth

Fig. B
9/10/12.

62 24 74

$\begin{pmatrix} 683.46 \\ 170^{\circ} 56' 30'' \end{pmatrix}$

Exmouth

Low cliffs

200	2000
200	1000
	00
	$190^{\circ} 45' 30''$
100	6500
	6450
	6200
	5400
	5200
	4600
	4100
	3100
	2100

Rocks.

200.

Small soak of good water here. I did not see it myself, being informed of its approximate position by my camel driver afterwards informed that this is a very good soak

Low scrub

Low scrub.

Fig. B
9/10/12.

62 24 74

$\begin{pmatrix} 641.47 \\ 160^{\circ} 26' 45'' \end{pmatrix}$

Exmouth

1000	20
	00
	$189^{\circ} 52' 15''$
10	1900
250	1000
	700
	00
	$179^{\circ} 3' 45''$
100	4900
	4000
	3000
	2000
	1000

$\begin{pmatrix} 636.46 \\ 159^{\circ} 11' 30'' \end{pmatrix}$

Scrub Good soil

Small groups

Low lying

Scrub.

19

6400

120

5700

100

5000

100

4000

100

3000

100

2000

100

1000

100

00

198° 6' 45"

2000

1900

1000

Sound ridge
Sound ridge
Sound ridge

Sound

6417

6417

645.56

161° 25' 45" (A)

2000

1000

00

211° 38' 30"

8430

686.39
154° 9' 45"

7800

6800

0000

5100

4300

4100

3100

2000

190° 48' 32" 062"

AB
84

part.

7/10/12

4h 25m

U.M. 360° Return 360°

262° 59' 40" act
263° 10' 20" 25° 54' 0"

82° 36' 20" coast
82° 47' 0" 64° 49' 0"

Latitude 22° 1' 0"

raw

Sound

AB
9/10/12

6417

6417



J.G.B.
10/10/12.

20

6200

6000

Pebbly
So. h.

5000

4000

3000

2500

2200

2000

1000

Dense
low
Scrub.

00

202° 51' 15"

(60)

7800

$\frac{625.43}{156.2540}$

6900

J.G.B.
10/10/12.

5900

(50)

5400

AB
85 post.

Scrub.

4900

30

4000

50

3000

10

2000

100

1000

50

Sandy ridge

Scrub.

00

$\frac{664.44}{166.11}$

(49)

173° 17' 30"

7700

7400

6800

6400

Plant including
about 2 miles
to last range

v. 16
10/10/12.

2
1000

00
142° 53'

4500

707.10
176° 47' 30"

4200

4000

3800

3100

2000

sandy
low sand

1400

1300

1000

00

189° 40' 45"

5000

AB
86 post.

low sand

4000

3000

Exit

Exit

618.16
154° 34'

G. B
10/10/12

2000

low
sand

1000

400

300

00

215° 7' 15"

10900

670.56
167° 42' 45"

10700

10100

9900

9700

salt pool

8700

about 2 miles to
base of high rocky
mtn. 4.

8100

low
sand

7100

flint
country

6500

6200

stone
crude

Exit

Exit

Exit

A.B.
10/10/12

Lat of AB 87 41
Standard meridian
Buola 3. 22° 6' 35"

Contradict 22° 6' 35"
A.B.
20.8.45

5000
4000
3000
2000
1000

1920 51 50 51

23
2000
1000
100
00
209° 32'
17200
16600
16400
16200
15700
15000
13900
13100
12500
11800
11500
10500

655.22
163° 20' 30"

Old dry soak.

Water may be obtained as there is an old origin found in a part with the wind soak at Keron

* Sun

AB 87

Ah 40m. 10-10-12.
Rm 360° Return 360°

* 259° 9' 40" alt
* 259° 20' 0" 22° 45' 0"
* 78° 46' 40" Coalt
* 78° 57' 0" 67° 58' 30"
Latitude 22° 6' 50"



Somb.

25 B
10/10/12

5000
4000
3000
2000
1000

7500
8600
7700
7500
6500
6000
5000
4000
3000
2000
1000

Somb.

Gravelly.

Raw Somb.

A.B.
7/14/12.

23

3600

2700

Sackham

1800

Samb.

900

00

386° 29' 30"

4400

⑤

590.16
147° 34'
Samb.

3500

Sand sub

2600

Sackham

1700

Samb.

800

221.44
55° 27' 15"

traverse
p. 16.

B

00

304° 3' 30"

Connection

to "Kubura."

A.B.
7/14/12.

For continuation
of const. line
see F.B. 62.

15300

15 post.

706.47

14400

88

176° 41' 45"

14200

14000

13000

50

12400

50

12000

11000

50

10600

10200

9600

Low sand.

8600

50

Spindle

7600

50

6600

100

6200

5200

5100

4100

3100

ab. 1/2 mile to range.

Spindle

2100

Low sand.

1100

1000

1000

00

191° 56' 30"

2400

⑤

2000

49.39
162° 29' 45"

Gulf.

Entrance

U/B
7/10/12.

24

4000

3000

2000.

1000

Stony plant.

00

287° 1A'

157° 5'

1500

Dune low

1100

Sand.

Chugori

00

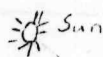
310° 4'

Rock hole

{small supply of good water}

Connection to "Chugori"

Kuburu is an old native well in the rock (limestone). There is only a small opening at the surface but underground there is a cave of considerable extent with the water at the bottom. The water is of very good quality; the supply is also good but is affected by the tides.



"Kuburu" Well

153.

264° 49'

105° 25' →

5635

AB post.

U/B
7/12/12.

Sun Obs. 7/10/12.

Sun 4h 20m.

R. 360° Return 360°

118° 15' 40" } alt

118° 25' 40" } 26° 6' 0"

297° 54' 20" } coast

298° 1' 20" } 64° 35' 30"

5400.

4500.

3600.

337° 50' magnetic.

336° 29' 35" Obs'd

Sand.

This is to certify that these field notes have been taken in the field by me personally (or under my own personal supervision, inspection, and field check), and are the actual results of the observations and measurements.

A. H. J. Bennett

Licensed Surveyor.

Date, *10/19/12*

INDEX.



99B
11/10/12

Sec. 2.

121.33.

5924

AB
71.

5000 =

4000