

From: Oct 1983

1987.328.277

To:

1000

# FILE WORK SHEET

SUBJECT MANUKAU HARBOUR - GENERAL.

incl. SURVEY OF HARBOUR ENTRANCE - HYDROGRAPHICS SURVEYS.

BRING UP		REMARKS	BRING UP		REMARKS
DATE	FOR		DATE	FOR	
		<del>CLOSED</del>			Prev. No. 1117

E.1000 ✓

**Auckland  
Harbour Board**

Auckland Harbour Board  
Princes Wharf, Quay Street  
Auckland, New Zealand  
P.O. Box 1259, Auckland  
Telephone 795-950, Telex: NZ 2705  
Telegrams: Haborad, Auckland

Reference

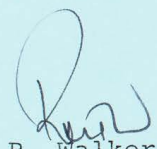
27 February 1987

Mr A. Mills  
80/81 Symonds Street  
ONEHUNGA

Dear Mr Mills

Further to your letter of 14 January 1987 would you please call Mr R. Walker on phone 795-590, ext 566 to discuss your suggestions concerning the Manukau Harbour.

Yours faithfully



R. Walker  
ASST. DESIGN ENGINEER

RW:pac

To: The Harbourmaster  
Chief Engineer.

10 March 1986

Mamukan Entrance - South Channel. 7.3.86

During an unsuccessful attempt to survey the South Channel the following shoals were located :-

1. A depth of 2.7m on The Destruction Gully leads  $320^\circ$ , ~~1300~~<sup>1270</sup>m from The lighthouse.
2. A depth of 2.8m on The Hill leads  $253^\circ$ , 1200m from The lighthouse.

Until a complete resurvey can be carried out it is suggested that deeper draught vessels be recommended to use the channel through The Western Shoals.

*[Signature]*  
Hydrographer.

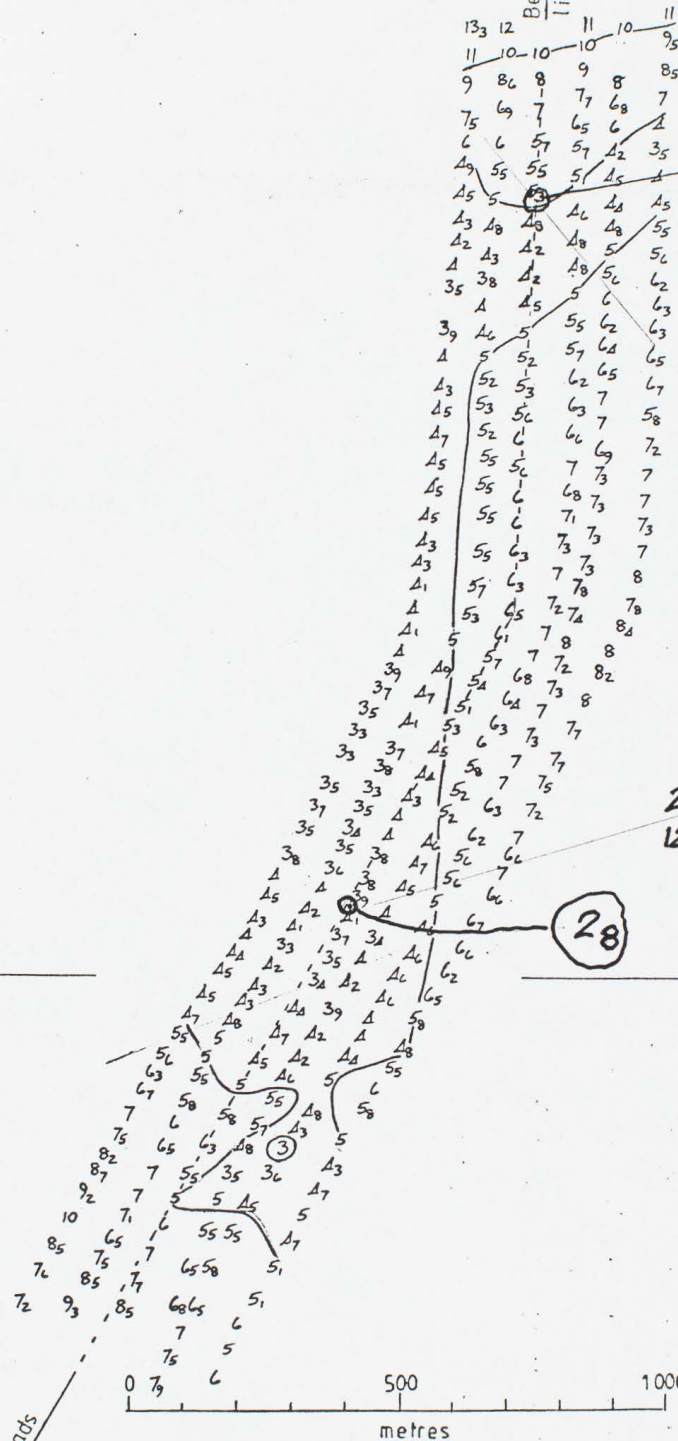
*[Signature]*  
10/3

file *[Signature]* 11/3

ACE (MCE)

174° 32'E

Beacons in line 002



27

28

253°  
1200m

3200  
1270m

Light House

37°  
04'S

Hill Leads

SOUNDINGS IN METRES & DECIMETRES BELOW CHART DATUM

Heik



MANUKAU HARBOUR ENTRANCE  
**SOUTH CHANNEL**  
Surveyed 29 Nov 1985

DRAWN *RWB*  
DATE 2.12.85  
SCALE 1:12,000

DRAWING  
**H5/1/45**  
Amendment 13

PLEASE REFER TO ENGINEERS

MICROFICHE NO. ENG. 495

30  
FOR PREVIOUS 100 DOCUMENTS

1000

To: AS PER DISTRIBUTION LIST

Date: 12 AUGUST 1985

From: THE HYDROGRAPHER

MANUKAU ENTRANCE - REPORT OF SURVEY - SOUTH CHANNEL

Following a report of shoaling in the South Channel on the Hill leads, subsequently confirmed by tug 'Manukau', a resurvey was carried out on 9 August 1985.

Plans H5/1/45 Amendment 12 shows a migration of sand lying ~~at the~~ <sup>athwart</sup> the Hill leads to the south west of the light house.

An improvement in depths had occurred since the report referred to above but a general deterioration has taken place in this area since the survey of 25 June.

The least depth on the Hill leads was 3.2m in position 249°, 1340m from the lighthouse. A 3.0m depth lies close west and 3.3m close east.

The least depth on the Destruction Gully leads remains at 4.6m.

J H Reith  
HYDROGRAPHER

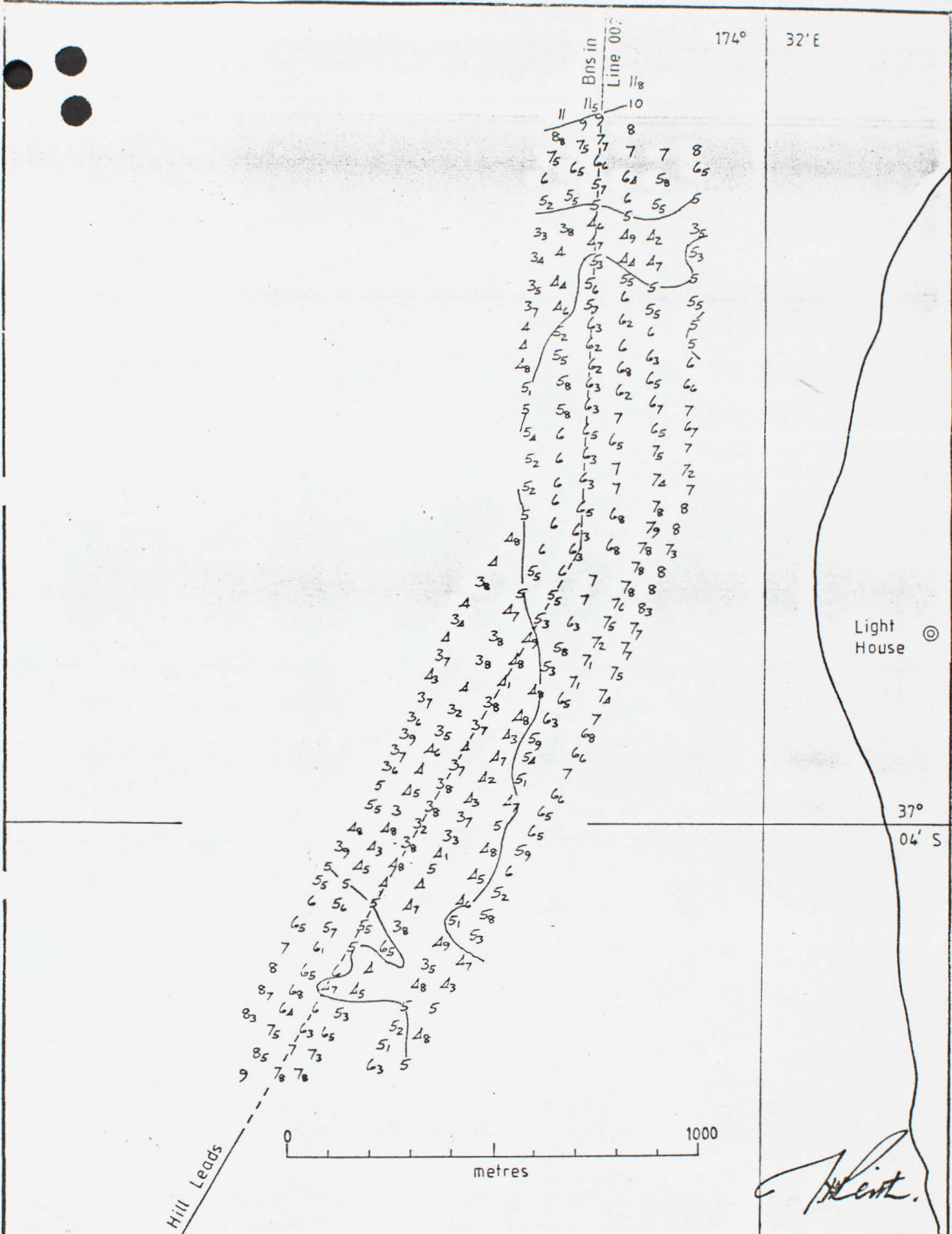
JHR:SAW

Encl. H5/1/45 Amendments 11 & 12

DISTRIBUTION

Chief Engineer  
Harbourmaster  
Operations Manager  
Officer-in-charge Onehunga  
Signalman South Head  
Hydro file

*JHR*  
*15/8*

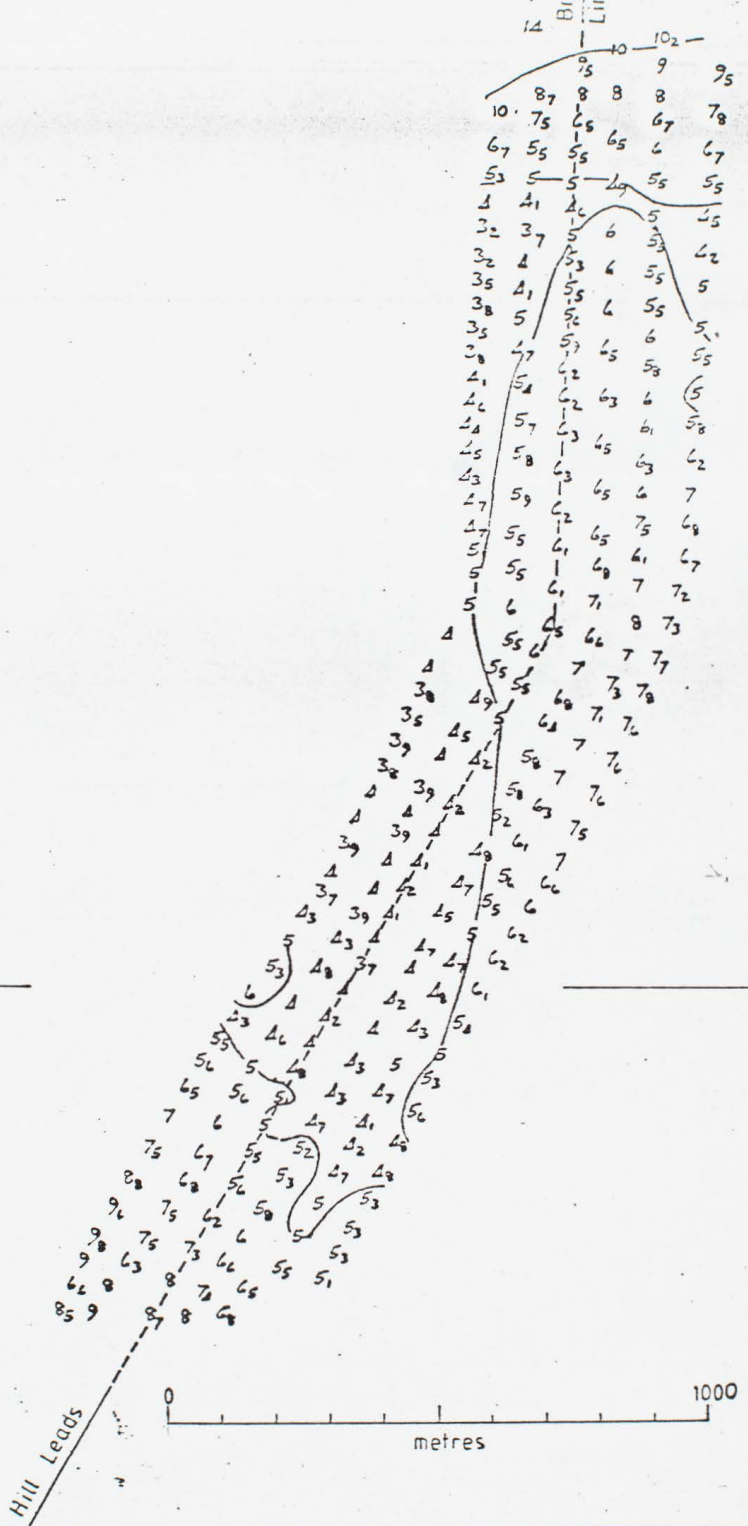


*Plot.*

	MANUKAU HARBOUR ENTRANCE-SOUTH CHANNEL	DRAWN <i>A.W.B.</i>	DRAWING H5/1 / 45 Amendment 12
	Surveyed 9 AUG 1985	DATE 12-8-85	
	Soundings in metres & decimetres below C.D.	SCALE 1:12000	

174° 32'E

BUS III  
Line 007



*Handwritten signature*

 <p>Auckland Harbour Board</p>	MANUKAU HARBOUR ENTRANCE-SOUTH CHANNEL	DRAWN <i>AWB.</i>	DRAWING
	Surveyed 25 JUNE 1985	DATE 26. 6. 85	HS/1/45
	Soundings in metres & decimetres below C.D.	SCALE 1:12000	Amendment 11



1135.



Memorandum

To: THE CHIEF ENGINEER

Date: 11 July 1984

From: THE HYDROGRAPHER

APPROACH TO ONEHUNGA WHARF  
REPORT OF SURVEY

Following reports of suspected shoaling in the channel between Nos. 33 and 35 buoys a monitoring survey of this area was carried out on Friday 6 July 1984.

No changes in depths were found and the controlling depth of 3.2m in this area remains. It was not considered necessary to amend existing plans.

On Monday 9 July a more detailed survey was carried out from midway between 37 and 39 buoys to No.26 buoy to confirm channel stability, particularly in the position of the northern edge of the channel by No.24 buoy where the mud bank was suspected to have moved south.

This survey (Plan H5/15/3) indicates no change to the 3m and shoaler contours on each side of the channel but does indicate that shoaling of up to 0.5m has occurred at channel centre between 39 and 41 buoys since 1978. To the eastward of No.41 buoy the shoaling is less and the sounding of 6m SW of No.26 buoy shows an increase in depth at this point.

These changes may be due to normal seasonal migration of bed material but may also be caused by discharged silts from the trawler basin. At present channel depths in this area are still in excess of the controlling depth of 3.2m but a programme of monitoring this section of channel annually will be programmed.

To assist those handling ships at Onehunga copies of the 1:1000 survey plans from White Bluff to the Wharf in composite form are being issued to the Harbourmaster and Officer-in-Charge Onehunga. A pecked outline of the largest vessel to normally

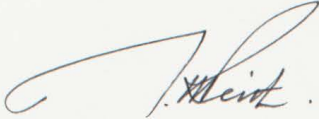
... ..

*Chief Engineer to see*

*JB*  
*11/7*

*Blec.*

use the port, the "Union Nelson" has been included to assist in determining scale.



J.H. Reith  
HYDROGRAPHER

JHR:VLH



H5/15/3,      H5/28 sheets 1, 2 and 3  
H5/23/11

c.c. Harbourmaster  
Officer-in-Charge, Onehunga.

Auckland Harbour Board  
MANUKAU HARBOUR-WAIROPA CHANNEL

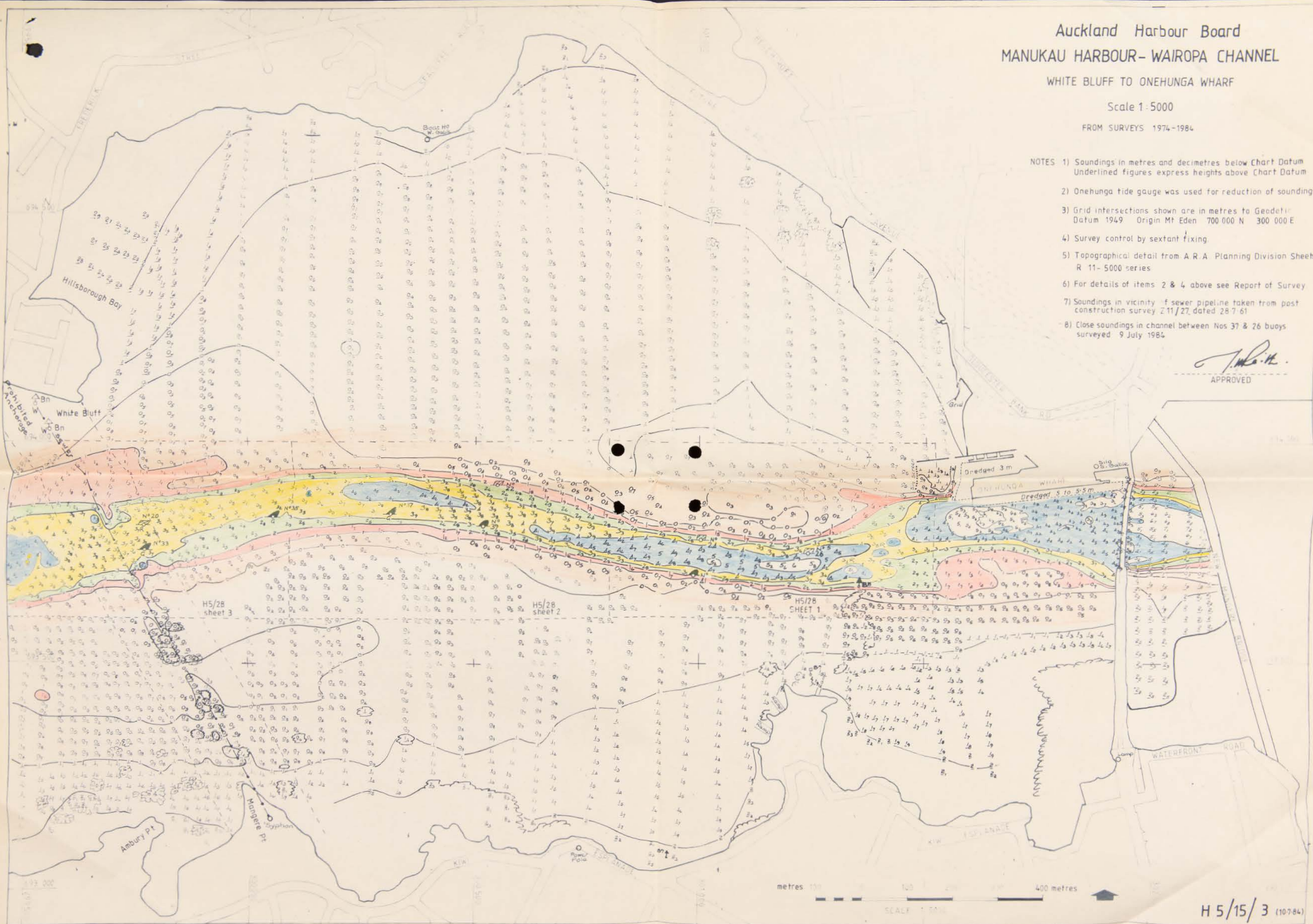
WHITE BLUFF TO ONEHUNGA WHARF

Scale 1:5000

FROM SURVEYS 1974-1984

- NOTES
- 1) Soundings in metres and decimetres below Chart Datum  
Underlined figures express heights above Chart Datum
  - 2) Onehunga tide gauge was used for reduction of soundings
  - 3) Grid intersections shown are in metres to Geodetic Datum 1949 Origin Mt Eden 700 000 N 300 000 E
  - 4) Survey control by sextant fixing
  - 5) Topographical detail from A.R.A. Planning Division Sheets R 11-5000 series
  - 6) For details of items 2 & 4 above see Report of Survey
  - 7) Soundings in vicinity of sewer pipeline taken from post construction survey Z 11/27, dated 28.7.61
  - 8) Close soundings in channel between Nos 37 & 26 buoys surveyed 9 July 1984

APPROVED



502/22  
(Mr C. Randell)

The County Engineer  
Franklin County Council  
Private Bag  
Pukekohe  
AUCKLAND

16 July 1984

Attn: Mr P. Tucker

Dear Sir

BOAT RAMP AT MATAKAWAU POINT - MANUKAU HARBOUR

Thank you for your letter of 12 July 1984 advising of Council's intention to commence construction of Stage 2 of the Boatramp extension as approved on Plan MD(N) 298.

Clause 4 of the licence agreement between the Board and Council dated 28 June 1977 provides that the boatramp extension shall be constructed to the satisfaction of the Board and the Harbourmaster and that the surface of the extension will not be more than 5 centimetres above the surrounding harbour bed.

Please ensure that this part of the Clause 4 provisions is strictly adhered to and confirm the completion date for the work in due course.

Yours faithfully

  
R.A. Albrecht  
PROPERTY MANAGER

CR:SB



c.c. Chief Engineer - Plan No. F499 refers  
Harbourmaster

*Ble*



**Auckland Harbour Board**

**Memorandum**

To: AS PER DISTRIBUTION LIST

Date: 8 May 1984

From: THE HYDROGRAPHER

MANUKAU ENTRANCE -  
REPORT OF SURVEY

Following a report that M.V. "Union Nelson" touched bottom in two positions when leaving harbour through the South Channel at 1100 on Friday 4 May 1984 a survey of this channel and the channel through the Western Shoals was carried out on 7 May 1984. Sea conditions were good with little swell in the Western Shoal area.

The Signalman at South Head estimated the two shoal positions above as follows:-

- 1. 326°, 1370m from the Lighthouse
- 2. 247°, 1460m from the Lighthouse

"Union Nelson's" draught was 4.9m fore and aft. At 1100 on 4/5/84 the tide at the Heads was predicted at 2.8m.

A swell of 1.5m was estimated which had decreased from swells of up to 8m generated by strong south westerlies on Wednesday and caused the Master of the ship to delay his departure from Thursday to Friday.

SOUTH CHANNEL

Similar results to the survey of 23/2/84 on the Gully leads. The sandbank of less than 3m still remains close westward at the northern end of the leads and has shoaled. The best water is to be found directly along both sets of leads where least depths found were as follows (Bearings and distances from the lighthouse):-

Hill Leads	4.0m	248°	1340m
	4.0m	252°	1250m
Gully Leads	<u>3.3m</u>	325°	1410m

WESTERN SHOALS

Considerable improvement has taken place since the survey of 22/284.

Depths in excess of 5m were found from the southern transit, with Ninepin Rock in line with the southern edge of Paratutai Island, to a line where Ninepin Rock is two widths

*Chief Engineer to all*  
*Rec*      *JB 8/5*

... ..

open to the south, giving a natural channel width of 600m.

It is understood that this channel is not being used because of a local report that a shoal has been located there.



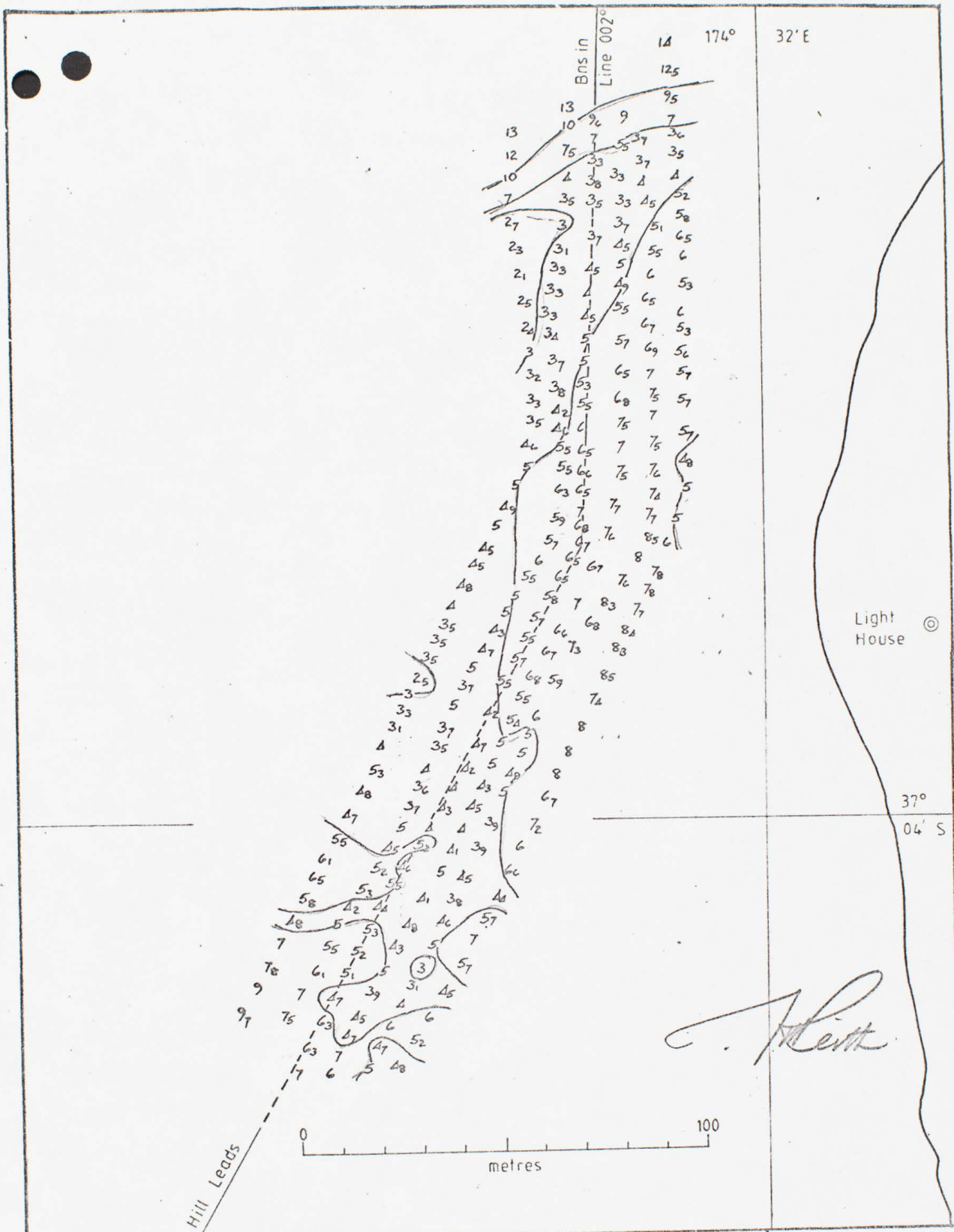
J.H. Reith  
HYDROGRAPHER

JHR:VLH

Enc. H5/1/45 Amendments 7 and 8  
H5/1/46 Amendments 3 and 4

DISTRIBUTION LIST

Chief Engineer  
Harbourmaster  
Operations Manager  
Officer-in-Charge Onehunga  
Signalman South Head  
Hydrographic File



MANUKAU HARBOUR ENTRANCE-SOUTH CHANNEL  
 Surveyed 7 May 1984  
 Soundings in metres & decimetres below C.D.

DRAWN *RWB*  
 DATE 8.5.84  
 SCALE 1:12,000

DRAWING  
 H5/1/45  
 Amendment 8

174° 32' E

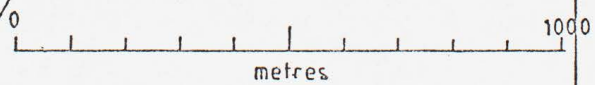
Bns in Line  
002°

135  
125 115  
108 95 78  
88 78 6  
81 52 57 5  
117  
95 82 61 55  
41 41 51  
45 39 45 55  
33 32 37 48 58 62  
3 35 38 42 51 55 61  
3 32 37 42 45 59  
3 32 39 45 59  
24 38 42 48 56 58  
31 38 44 52 65 72  
32 35 41 51 54 69 73  
33 39 51 54 67 7  
35 37 51 58 69 71  
34 42 55 61 71 71  
38 44 54 59 71 71  
44 45 54 58 68 74 71 78  
5 44 52 6 67 79  
49 51 7 7  
55 59 67  
59 66

Light House

Hill Leads

*[Signature]*



37° 04' S



MANUKAU HARBOUR ENTRANCE - SOUTH CHANNEL  
 Surveyed 22 FEB 1984  
 Soundings in metres & decimetres below C.D.

DRAWN R W B  
 DATE 23.2.84  
 SCALE 1:12,000

DRAWING  
 H5/1145  
 Amendment 7



174° 26' E

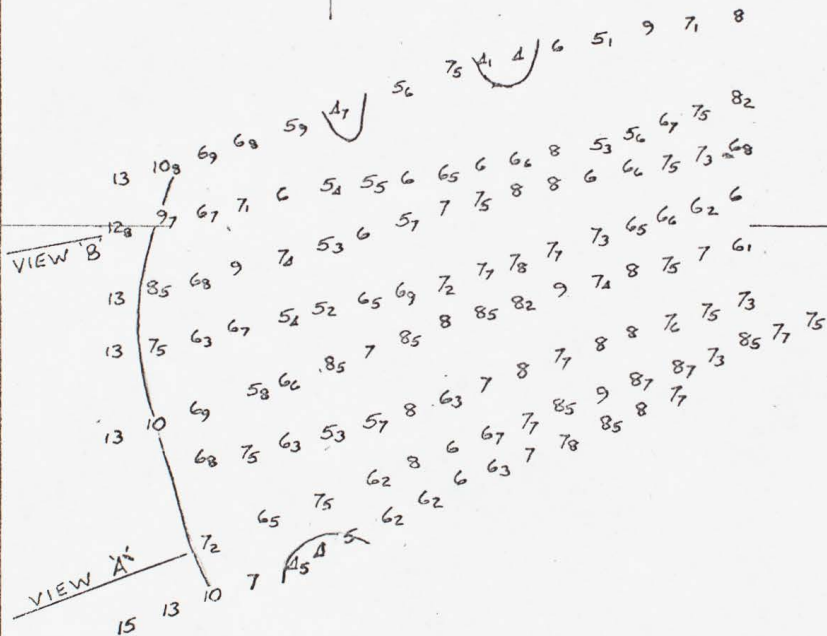
27' E



VIEW A



VIEW B (Ninepin open two widths to south)



37°

04 S



MANUKAU HARBOUR ENTRANCE-WESTERN SHOALS

Surveyed 7. MAY 1984

Soundings in metres & decimetres below C.D.

DRAWN *AWB.*

DATE 8.5.84

SCALE 1:12,000

DRAWING

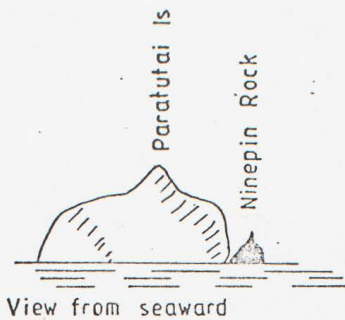
H5/1/46

Amendment 4

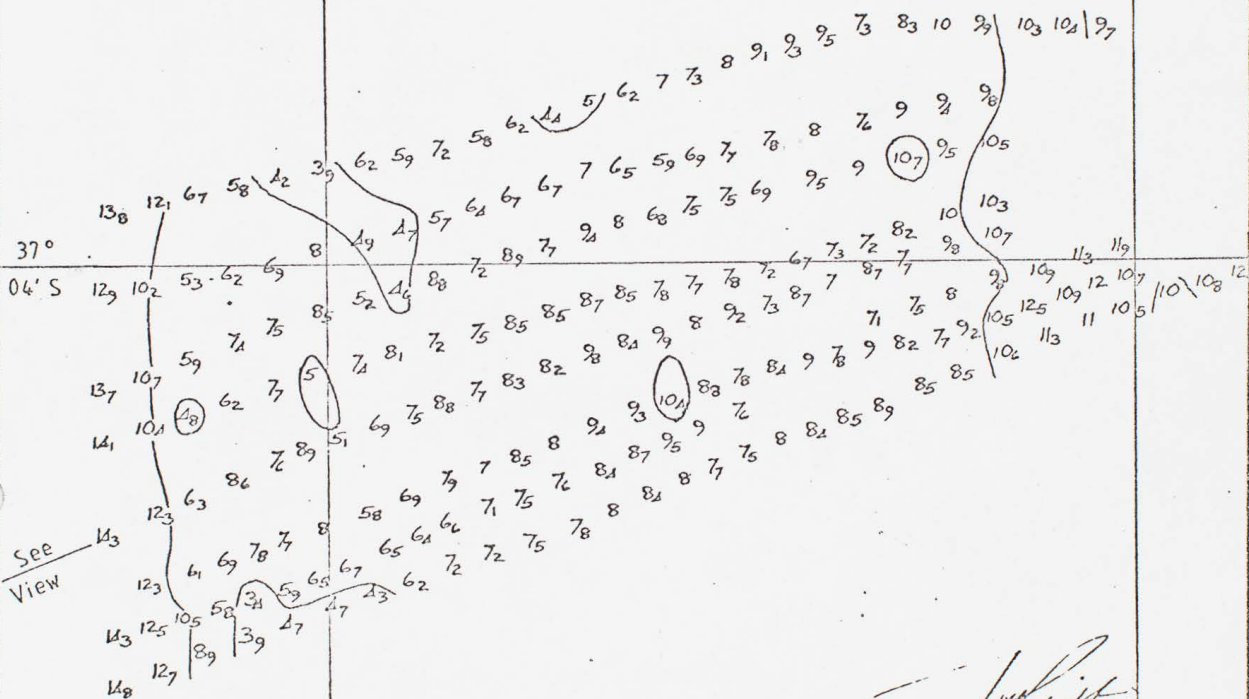
174°

26' E

27' E



View from seaward



*[Handwritten Signature]*



MANUKAU HARBOUR ENTRANCE-WESTERN SHOALS

Surveyed 22 FEB 1984

Soundings in metres & decimetres below C.D.

DRAWN RW B

DATE 23.2.84

SCALE 1:12,000

DRAWING

H5/1/46

Amendment 3



Memorandum

To: AS PER DISTRIBUTION LIST Date: 23 February 1984
From: THE HYDROGRAPHER

MANUKAU ENTRANCE - REPORT OF SURVEY

A resurvey of the Destruction Gully leads area of the South Channel and over the Western Shoals was carried out on 22 February 1984. Sea conditions were average with the usual troughs of about 2 metres on the Western Shoals.

Western Shoals

Similar results to those obtained on 10 January 1984.

The shoal at the southern side of the channel has decreased by 1m to 3.4, otherwise depths in excess of 5m exist along the leading marks depicted on the plan.

South Channel

The sandbank to the west of the Gully leads has extended NE almost to the line of the leads. Better water was found to the eastward but this passage is very narrow, another line to the east would have taken us through broken water and was not considered prudent.

The least depth on the Gully Leads was 3.2m in position 323°, 1350m from the lighthouse.

No soundings were taken on the Hill Leads.

Handwritten signature of J.H. Reith.

J.H. Reith
HYDROGRAPHER

JHR:VLH

DISTRIBUTION LIST

- Chief Engineer Harbourmaster Officer-In-Charge Onehunga
Operations Manager Signalman Hydrographic File
South Head



Enc. H5/1/46 Amendment 2 and 3
H5/1/45 Amendment 6 and 7

Handwritten notes: 'File', 'JHR', 'Mr Gray', '24/1'.

174° 32' E

Bns in Line  
00 2°

135 115 117  
 125 115 95  
 108 75 72 78 82  
 88 78 6 61  
 81 52 57 5 55  
 45 41 41 41 41  
 33 32 37 45 51  
 3 30 42 48 58  
 37 37 42 51 62  
 31 32 39 44 59  
 27 32 41 48 59  
 21 38 44 5 59  
 31 35 44 52 65  
 32 39 51 51 69  
 33 41 52 58 67  
 35 37 51 58 69  
 34 42 55 61 71  
 38 44 52 59 71  
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 49 52 67 67 79  
 45 51 7 7 8  
 55 58 67 7  
 55 59 67  
 59 66

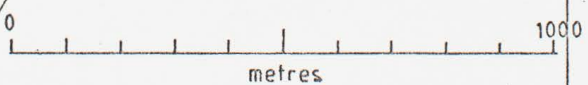
Light House

37° 04' S

Hill

Leads

*[Handwritten Signature]*



MANUKAU HARBOUR ENTRANCE-SOUTH CHANNEL

Surveyed 22 FEB 1984

Soundings in metres & decimetres below C.D.

DRAWN R W B

DATE 23.2.84

SCALE 1:12,000

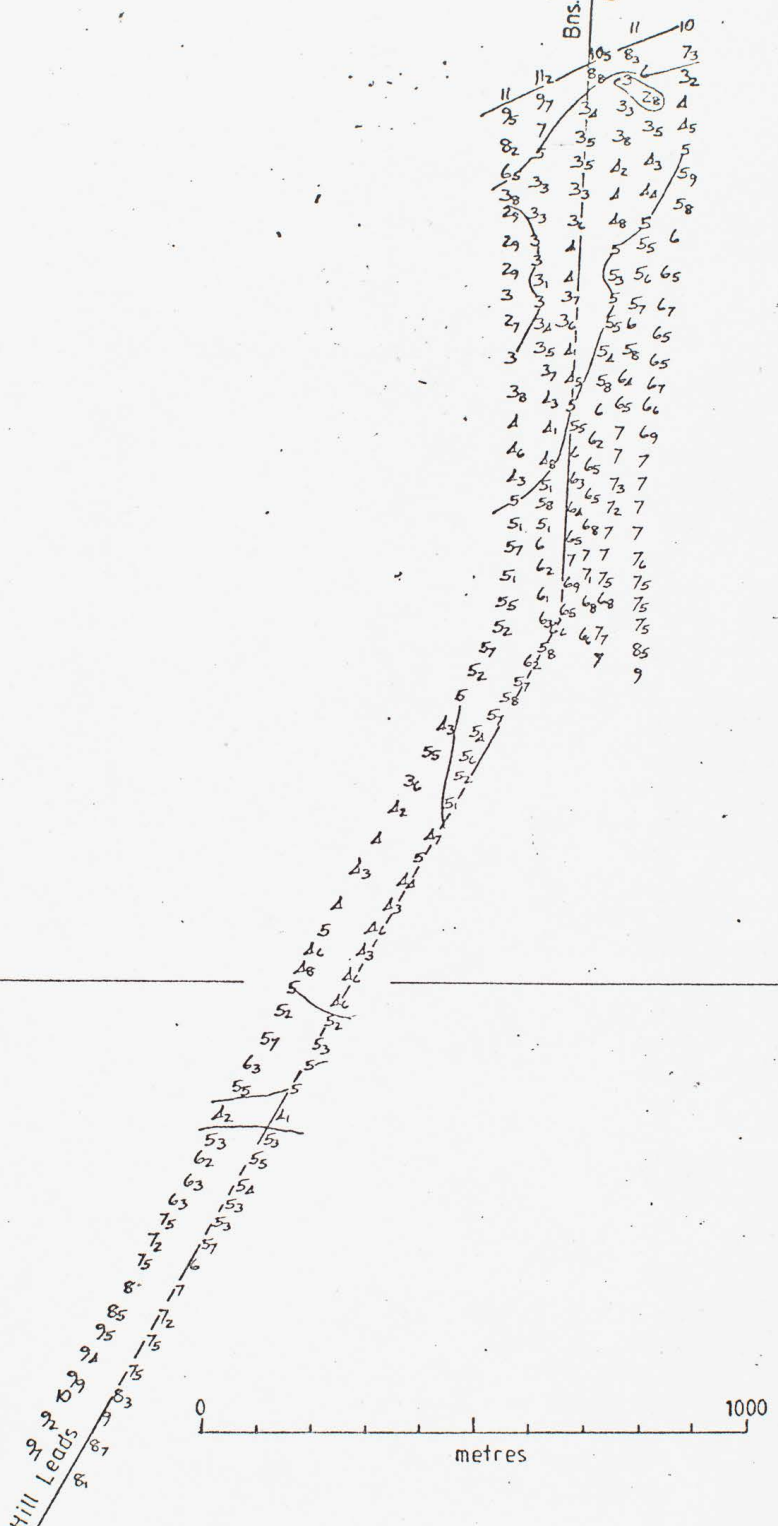
DRAWING

H5/1/45

Amendment 7

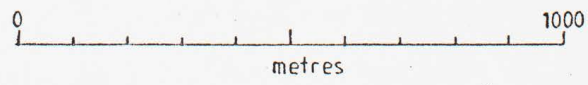
174° 32' E

Bns. in line  
0020



Light House

37° 04' S



*J. M. Leitch*



MANUKAU HARBOUR ENTRANCE-SOUTH CHANNEL  
 Surveyed 10 JAN 1984  
 Soundings in metres & decimetres below C.D.

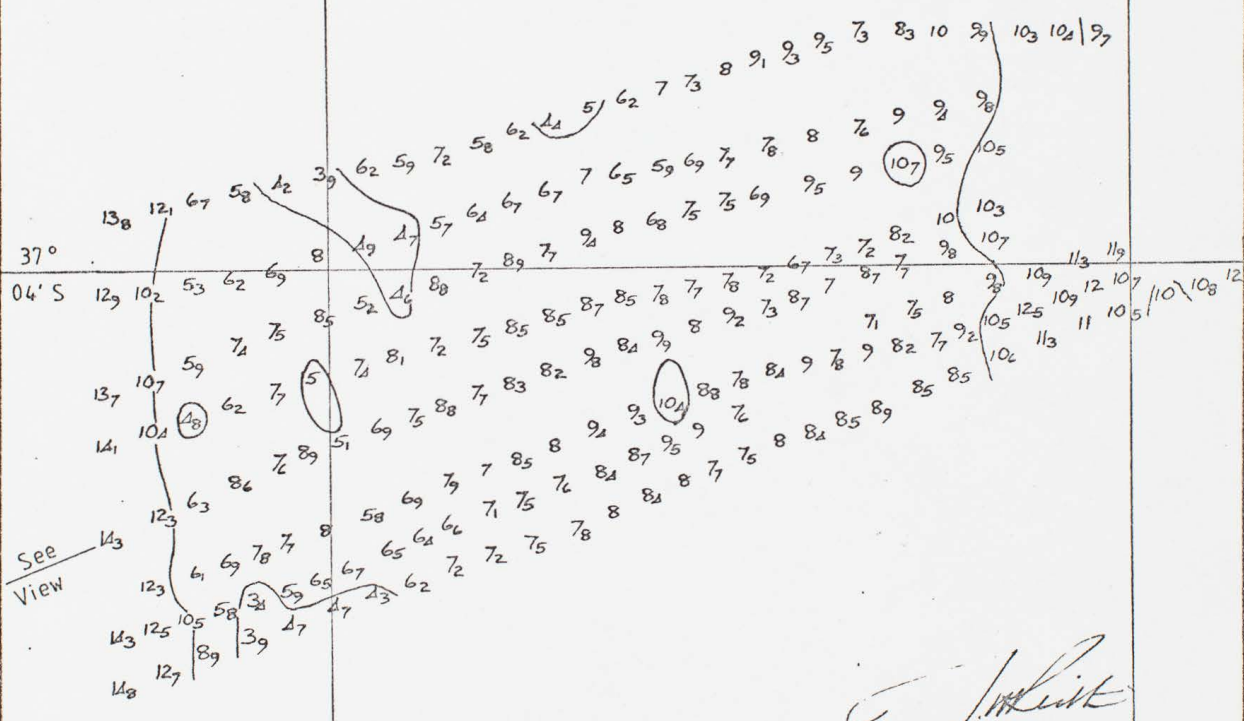
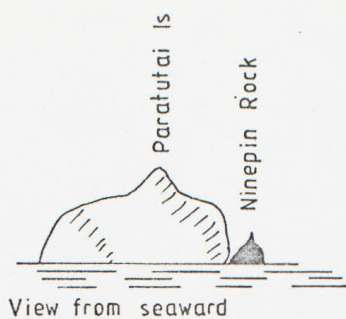
DRAWN R W B  
 DATE 11-1-84  
 SCALE 1:12,000

DRAWING  
 H5/1/45  
 Amendment 6

174°

26' E

27' E



MANUKAU HARBOUR ENTRANCE-WESTERN SHOALS

Surveyed 22 FEB 1984

Soundings in metres & decimetres below C.D.

DRAWN RW B

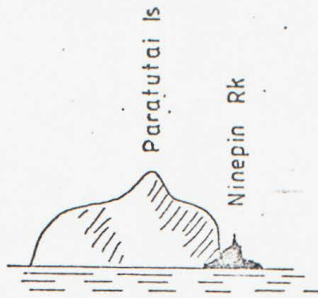
DATE 23.2.84

SCALE 1:12,000

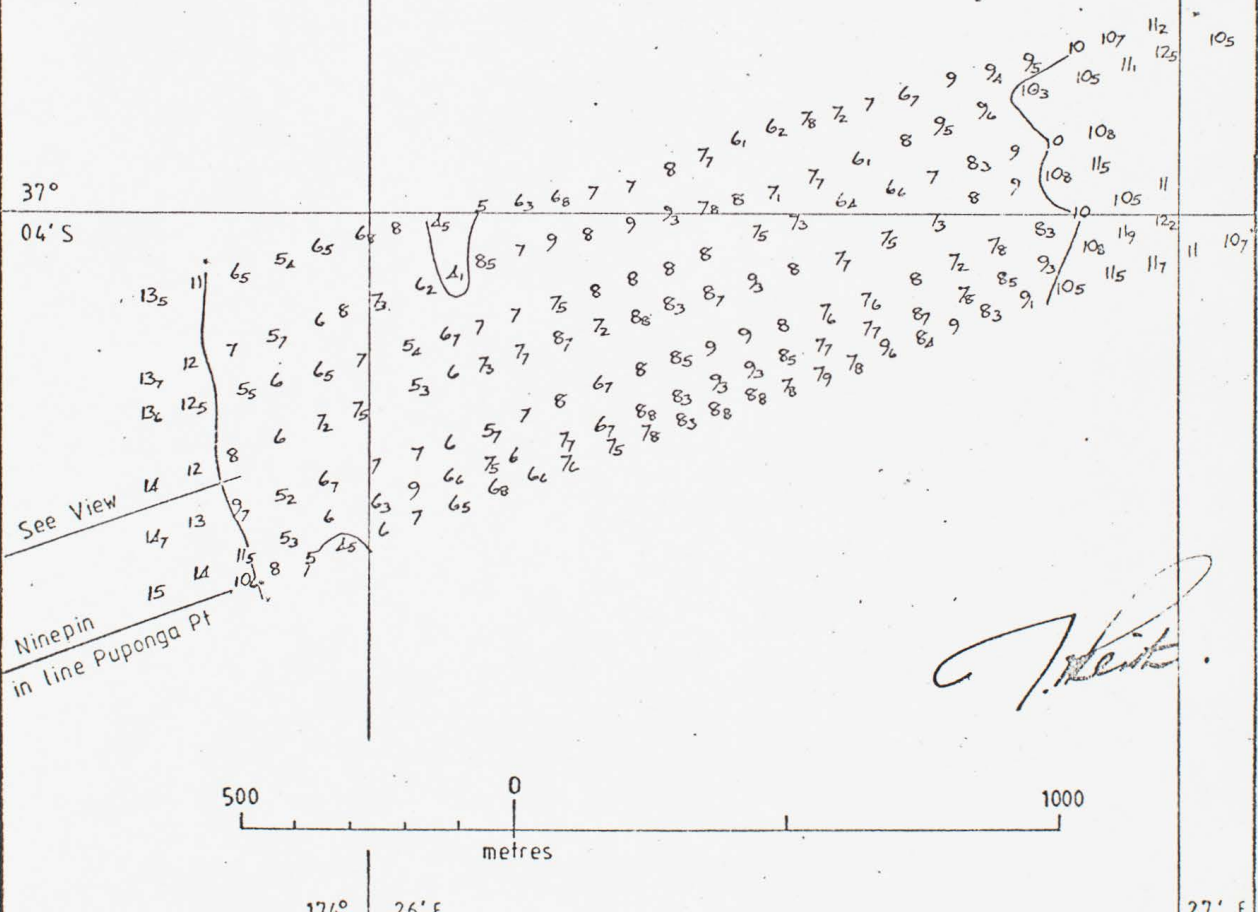
DRAWING

H5/1/46

Amendment 3



View from seaward



Auckland  
Harbour Board

MANUKAU HARBOUR ENTRANCE—WESTERN SHOALS

Surveyed 10 JAN 1984

Soundings in metres & decimetres below C.D.

DRAWN R W B

DATE 11-1-84

SCALE 1:12,000

DRAWING

H5/1/46

Amendment 2



Memorandum

To: AS PER DISTRIBUTION LIST                      Date: 11 January 1984

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From: THE HYDROGRAPHER

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MANUKAU ENTRANCE - REPORT OF SURVEY

A resurvey of the South Channel and at the Western Shoals was carried out commencing at two hours after Low Water on a neap tide on 10 January 1984. Moderate sea conditions prevailed although the usual near breaking waves with troughs of about 2 metres were experienced at the western perimeter of the Bar.

Western Shoals

This approach is now being used by all but one of the larger ships regularly visiting Onehunga. Considerable improvement in depths since the last survey have established a channel of 300m in width with an easily definable lead as indicated on the resultant plan with depths in excess of 5 metres.

Comparison with the Navy 1982 survey shows that the ten metre contour has moved 200m to the west and that shoals of less than 5m have either migrated westward or disappeared.

As the Middle Deep is also extending westward it would appear probable that the cyclic variation here is coming back to the 1954 situation (see plan attached). In view of the present state of the South Channel I would recommend that the larger vessels continue to use this approach even if breakers are present in westerly weather conditions.

The best water is found by having Ninepin Rock half a width open to the south of the southern point of Paratutai Island.

South Channel

As time was limited only two lines of soundings were taken along the Hill leads followed by a more extensive investigation in the vicinity of the Destruction Gully leads.

This shows that the shoal of 3m or less previously straddling the line of the Gully leads has receded westward and the sandspit growing from the beach below the signal station has also extended westward to a point 70m east of the leads where a sounding of 3m was located in position 327° 1390m from the lighthouse. To the SW of this shoal the 3m contour of the bank 70m to the west of the leads lies in position 310° 1190m from the lighthouse. The best water is directly along both sets of leads where least depths found are as follows:-

- Hill leads 4.1m 242° 1550m from the lighthouse
- Gully leads 3.3m 319° 1270m from the lighthouse

*File JB 12/1*

... ..



The South Channel continues to show instability and should be used with caution. If sea conditions permit the approach across the Western Shoals will give 2m greater depth.



J.H. Reith  
HYDROGRAPHER

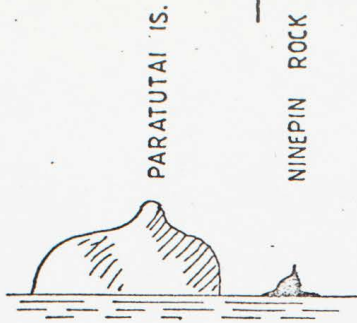
JHR:VLH

Enc. H5/1/46 Amendments 1 and 2  
H5/1/45 Amendments 5 and 6

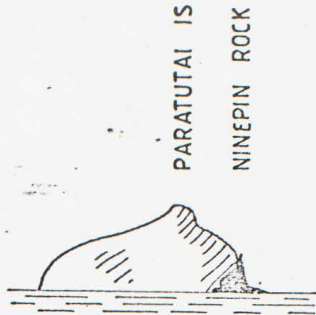
P.93 Manukau Harbour Plan

DISTRIBUTION LIST

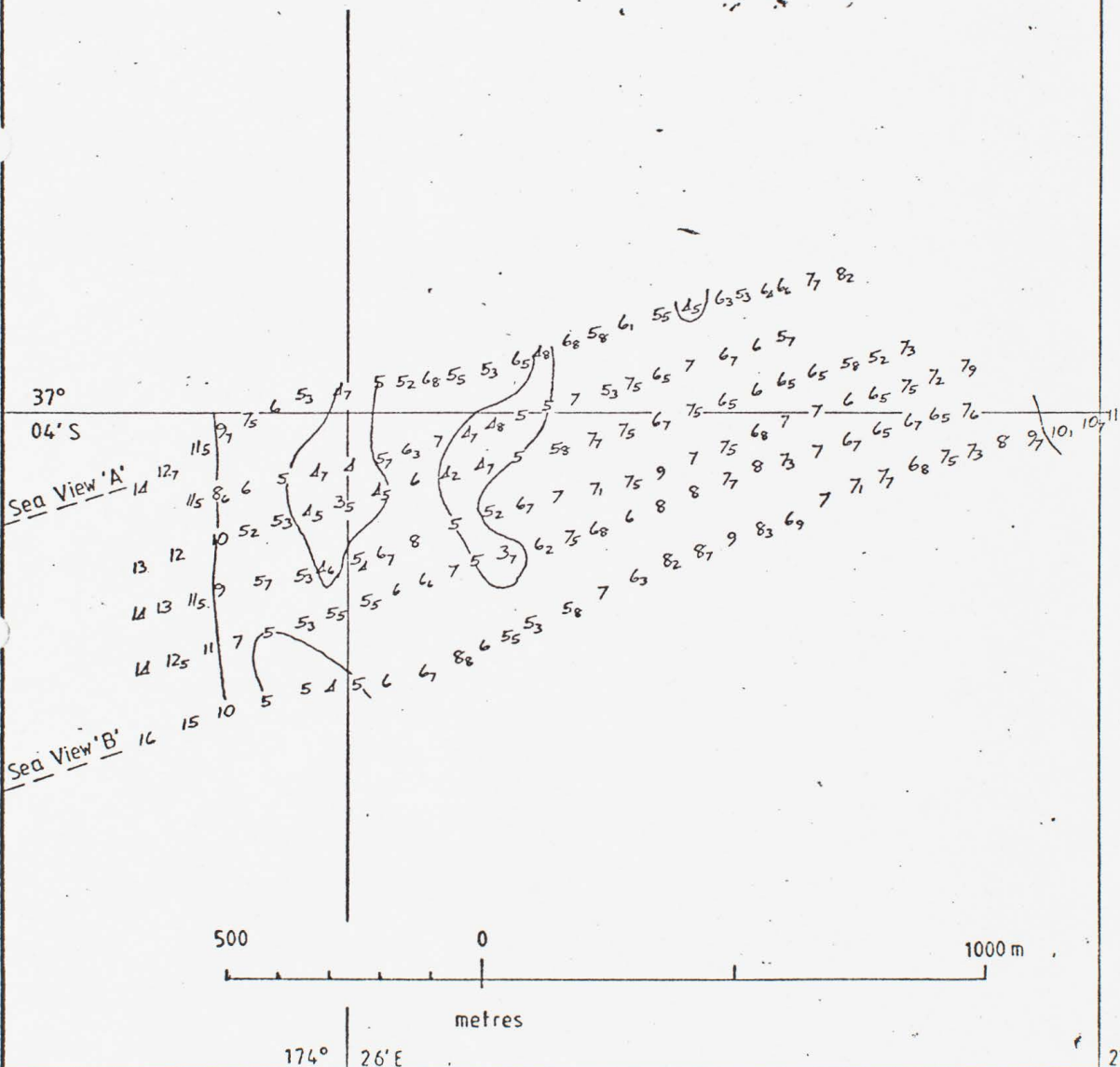
Chief Engineer  
Harbourmaster  
Officer in Charge Onehunga  
Operations Manager  
Hydrographic File




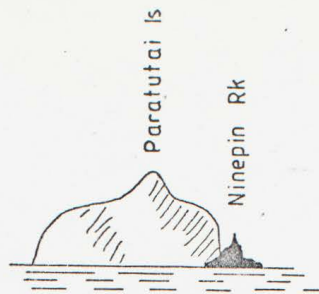
VIEW 'A'  
Ninepin open two widths to south



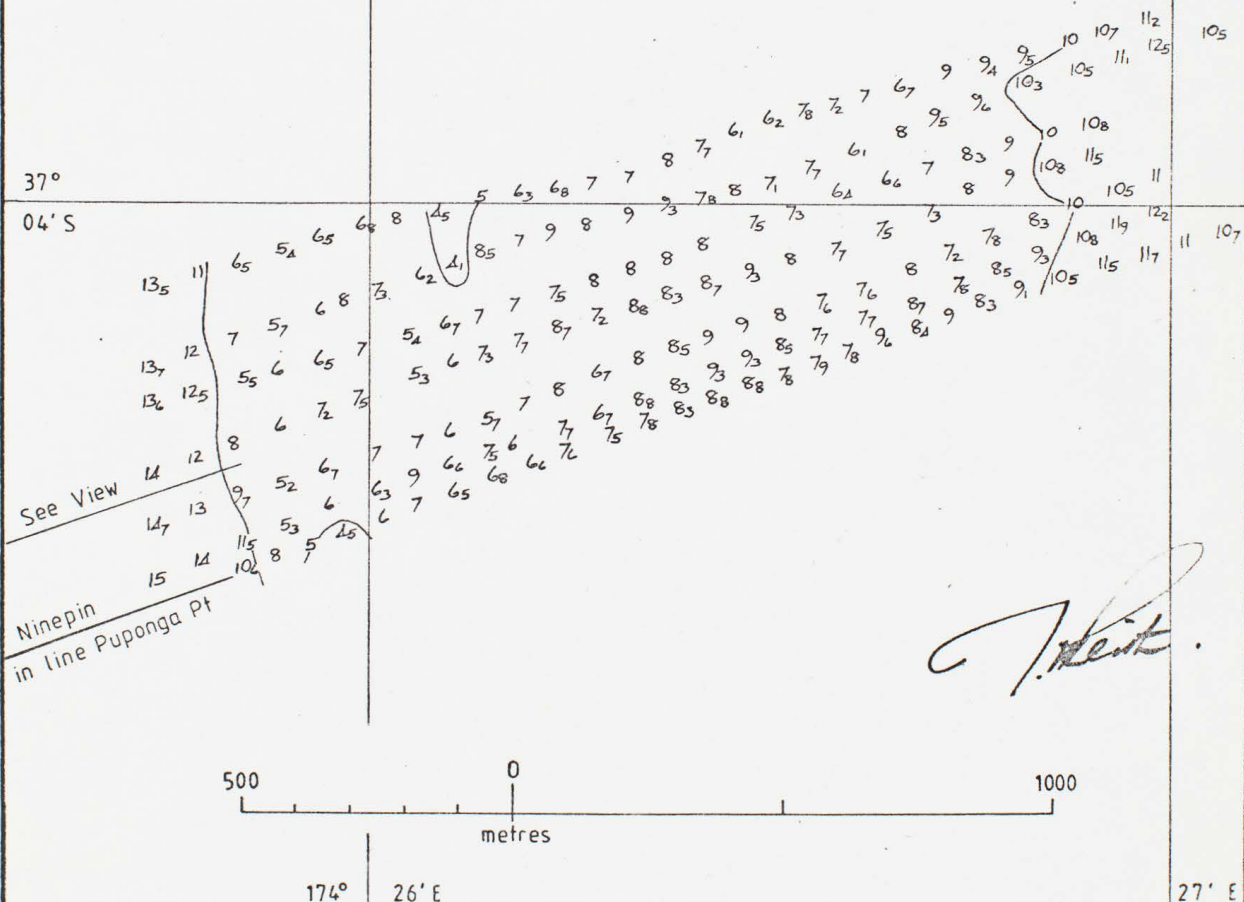
VIEW 'B'  
Ninepin in line with southern edge Paratutai Is.




	MANUKAU HARBOUR ENTRANCE-WESTERN SHOALS	DRAWN R/WB	DRAWING H5/1/46 Amendment 1
	Surveyed 18 Oct 1983	DATE 19 10 83	
	Soundings in metres & decimetres below C.D.	SCALE 1:12,000	



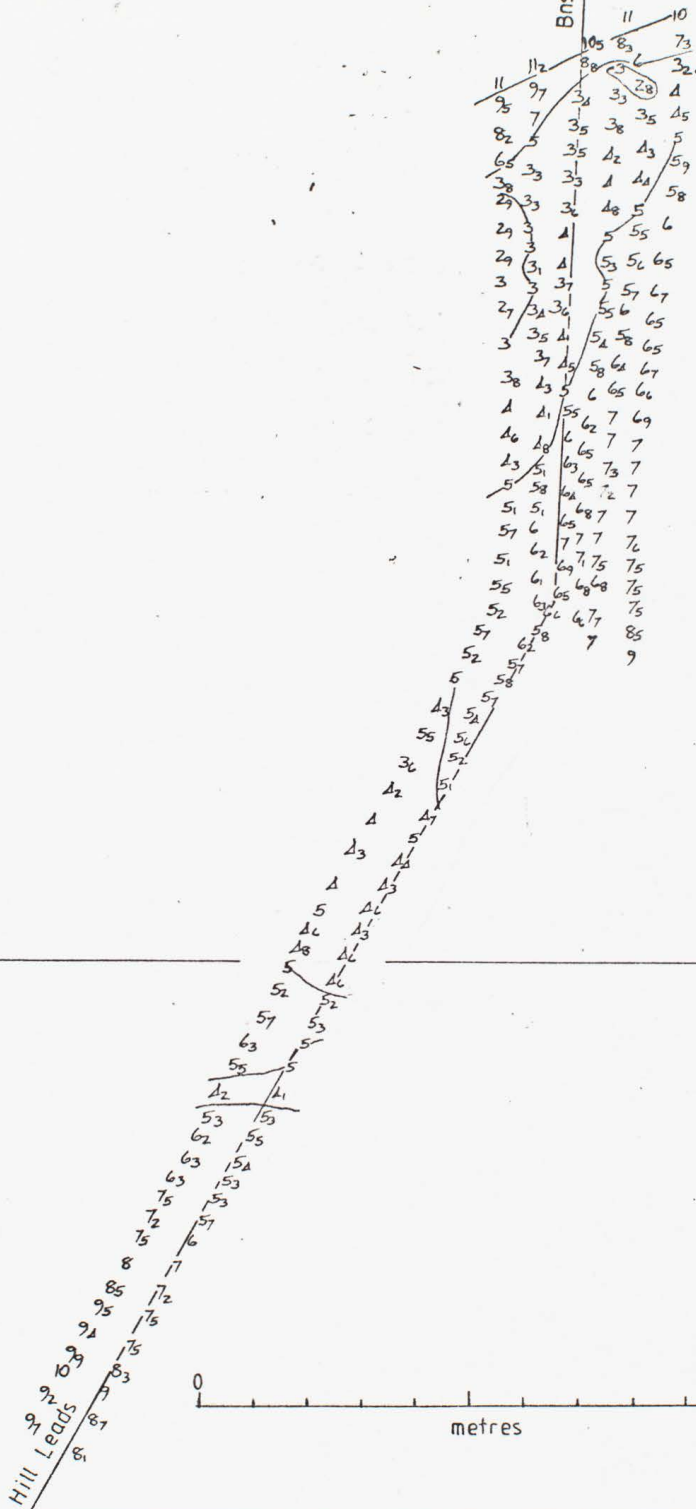
View from seaward



	MANUKAU HARBOUR ENTRANCE-WESTERN SHOALS	DRAWN R W B	DRAWING H5 / 1 / 46 Amendment 2
	Surveyed 10 JAN 1984	DATE 11-1-84	
	Soundings in metres & decimetres below C.D.	SCALE 1:12,000	

174° 32' E

Bns. in line  
002°



37° 04' S



MANUKAU HARBOUR ENTRANCE-SOUTH CHANNEL

Surveyed 10 JAN 1984

Soundings in metres & decimetres below C.D.

DRAWN RW B

DATE 11.1.84

SCALE 1:12,000

DRAWING

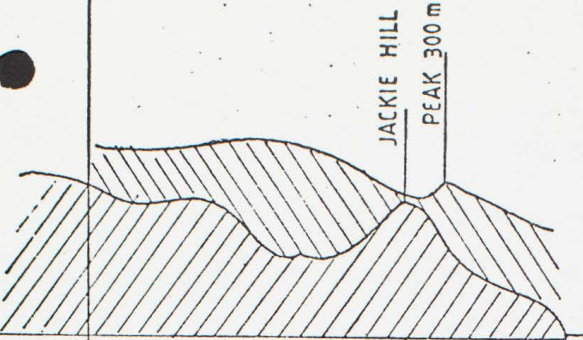
H5/1/45

Amendment 6

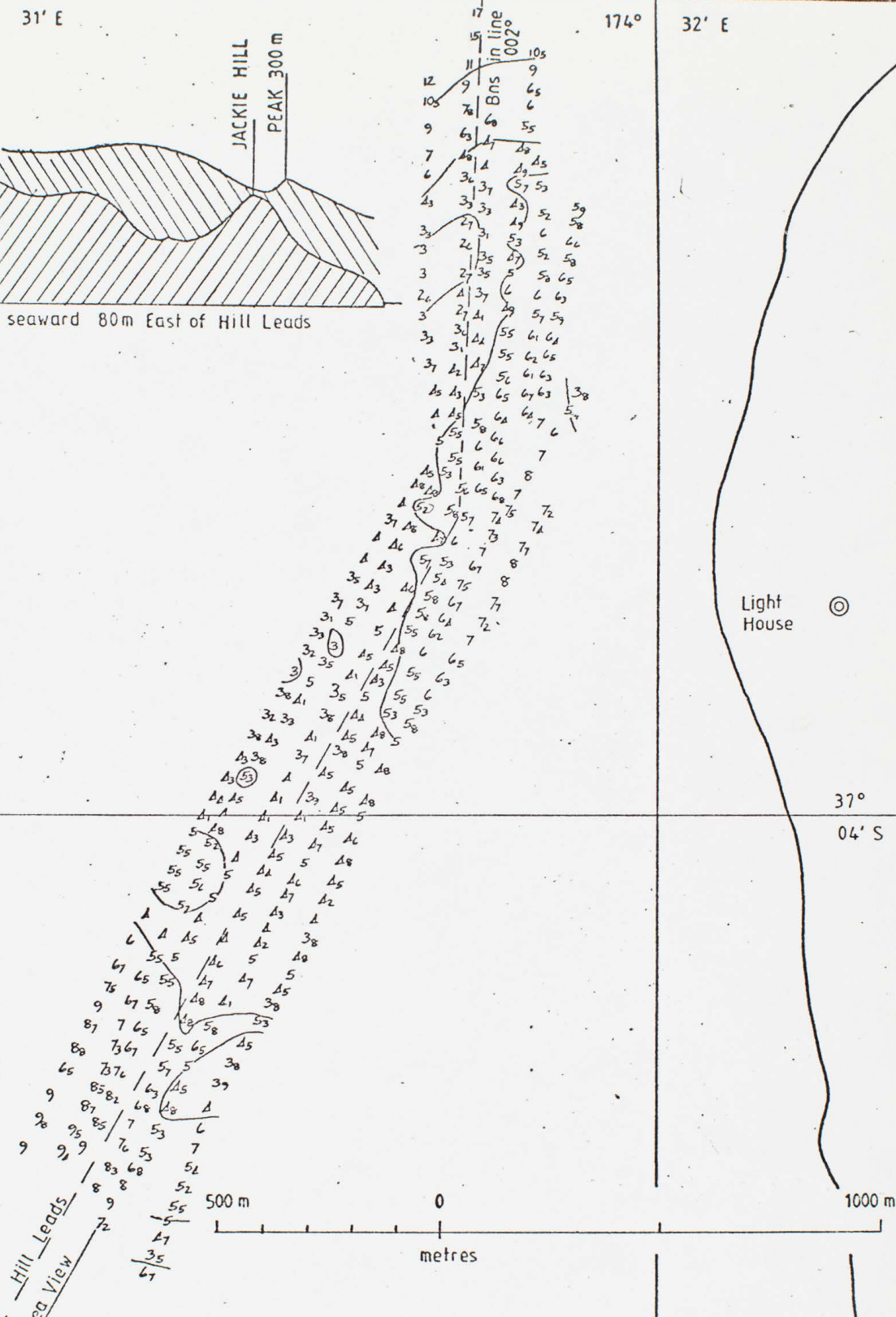
31' E

174°

32' E



View from seaward 80m East of Hill Leads



MANUKAU HARBOUR ENTRANCE-SOUTH CHANNEL

Surveyed 18 Oct 1983

Soundings in metres & decimetres below C.D.

DRAWN RWB

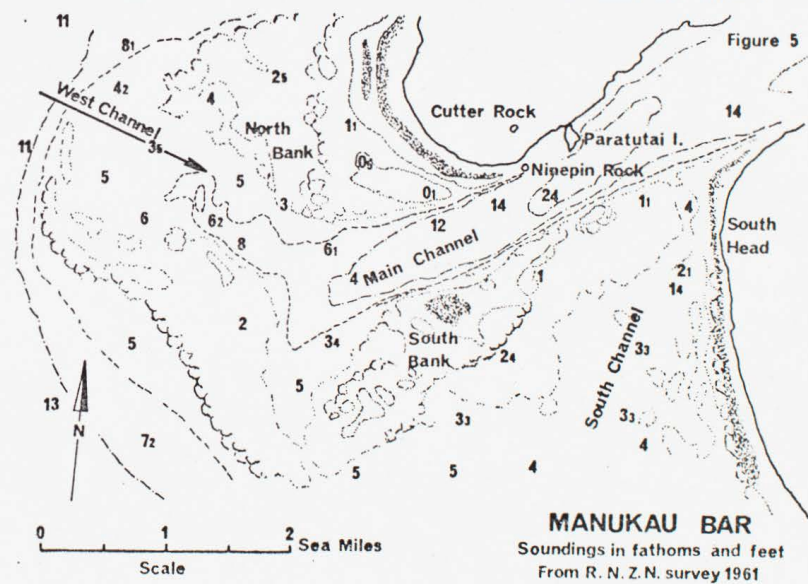
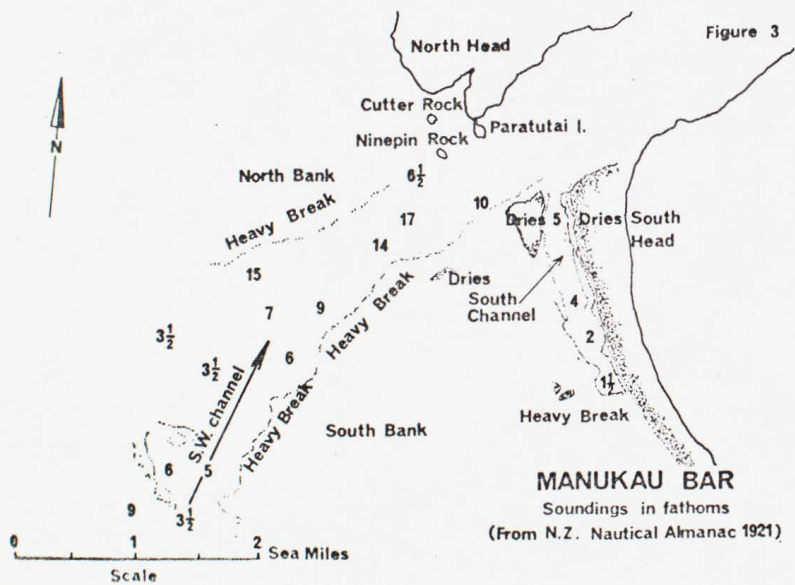
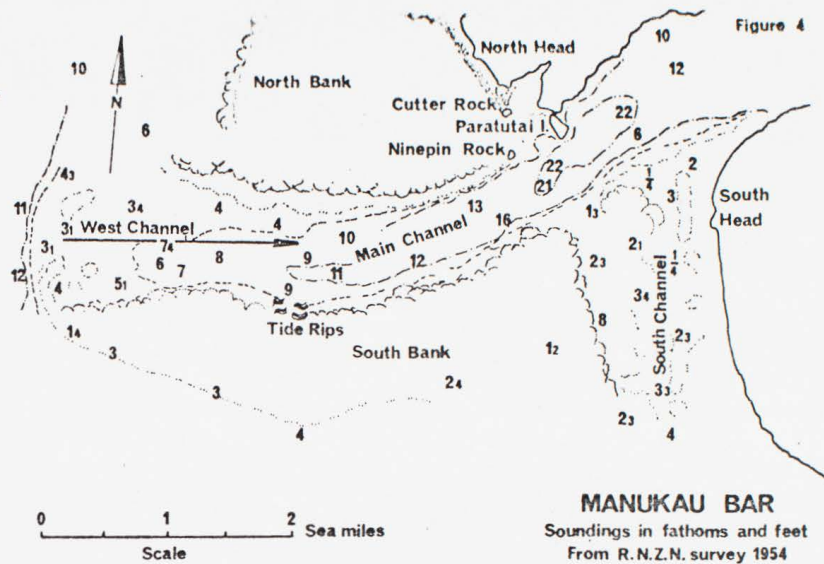
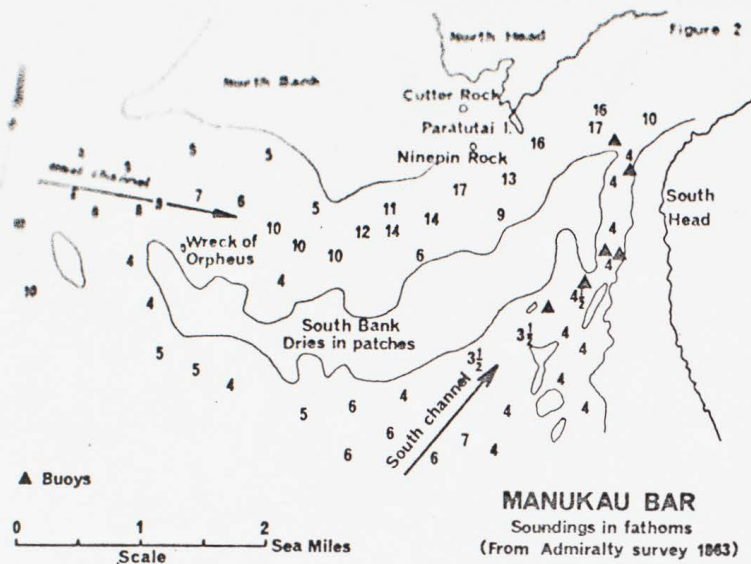
DATE 19 10 83

SCALE 1:12,000

DRAWING

H571/45

Amendment 5



To: AS PER DISTRIBUTION LIST

Date: 19 October 1983

From: THE HYDROGRAPHER

MANUKAU ENTRANCE - REPORT OF SURVEY

A resurvey at both the South Channel and the currently used area at the Western Shoals were carried out commencing at High Water on 18 October 1983. Approximately 1 metre swell was experienced in the South Channel but greater lift in the Western Shoals where waves from the westerly quarter were almost breaking resulting in troughs of from 2 to 3 metres.

South Channel

The shoal lying across the northern end of the Destruction Gully leads has receded further to the west. On these leads the least depth was 2.6m 313° 1160m from the lighthouse. On the Hill leads the least depth is 3.8m 254° 1200m from the lighthouse.

The best approach was found to be 80m east of the Hill leads, then along the Gully leads with the northern beacon two widths open to the east of the south beacon.

Western Shoals

The area sounded was clear of breakers but probably would be breaking with less tide.

Apart from the usual movement of the 10m contour, 150m to the west since the Navy Survey of March 1982, there appears to be little significant difference in depths with isolated shoals of from 3.5 to 5m which will fluctuate in both positions and depth with wind and tide.

These surveys confirm the findings reported by Tug "Manukau" upon which ships are being directed. It is recommended that reconnaissance by the tug should continue as these have proved invaluable in finding the best water.

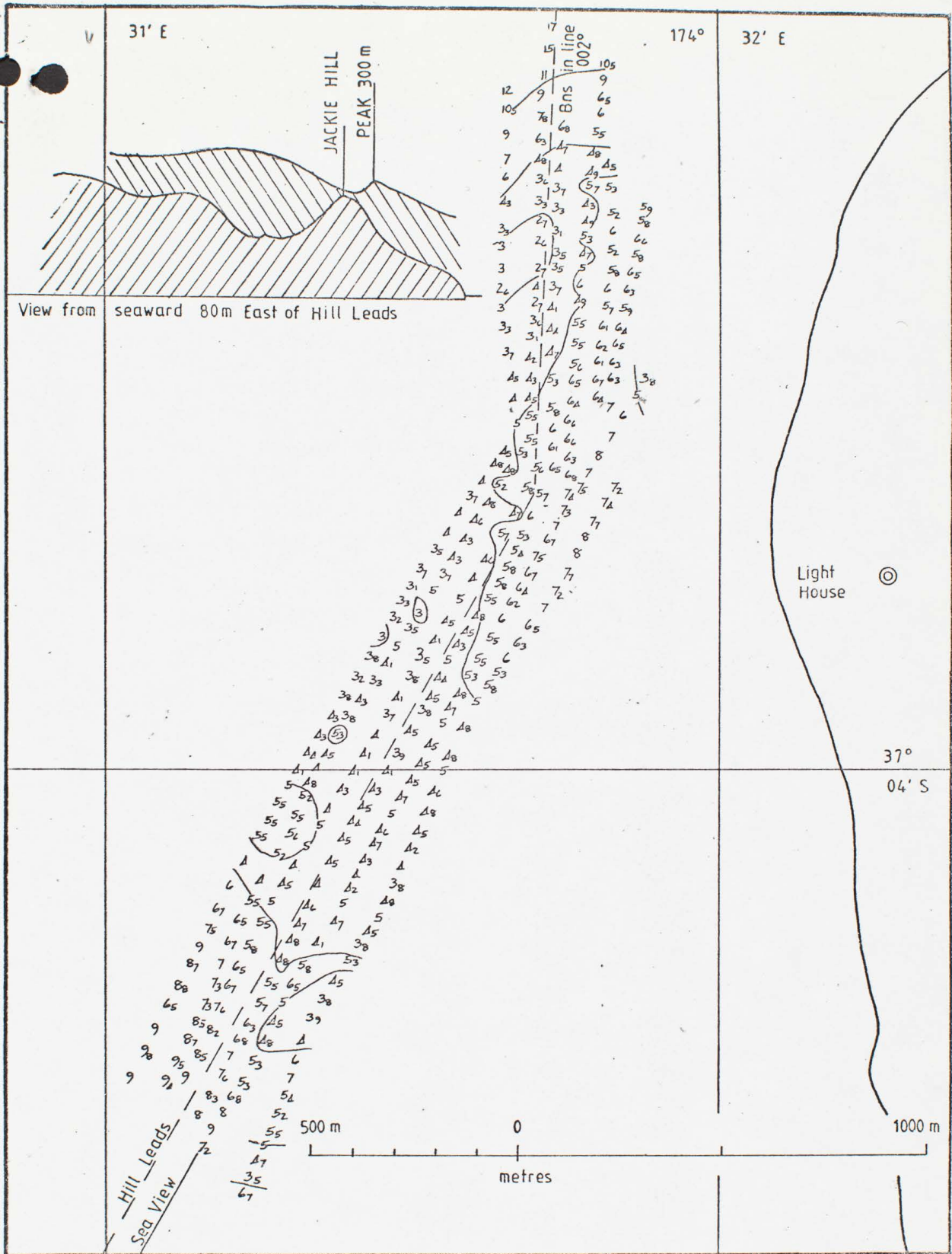
  
J.H. Reith  
HYDROGRAPHER

JHR:VLH Enc. Amendments Nos. 4 and 5 to H5/1/45  
No.1 to H5/1/46

DISTRIBUTION LIST

Chief Engineer            Harbourmaster            Officer-in-Charge Onehunga  
Operations Manager    File Copy

BEC Mr Gray



MANUKAU HARBOUR ENTRANCE-SOUTH CHANNEL

Surveyed 18 Oct 1983

Soundings in metres & decimetres below C.D.

DRAWN RWB

DATE 19 10 83

SCALE 1:12,000

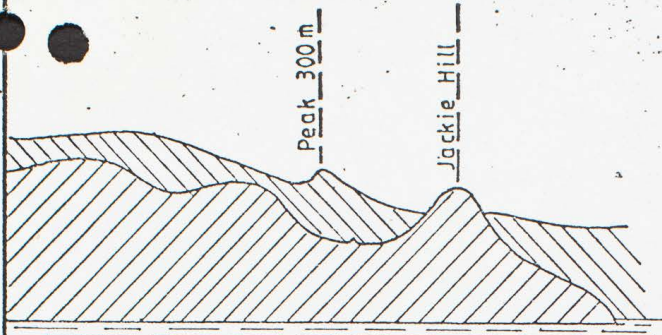
DRAWING

H5/1/45

Amendment 5

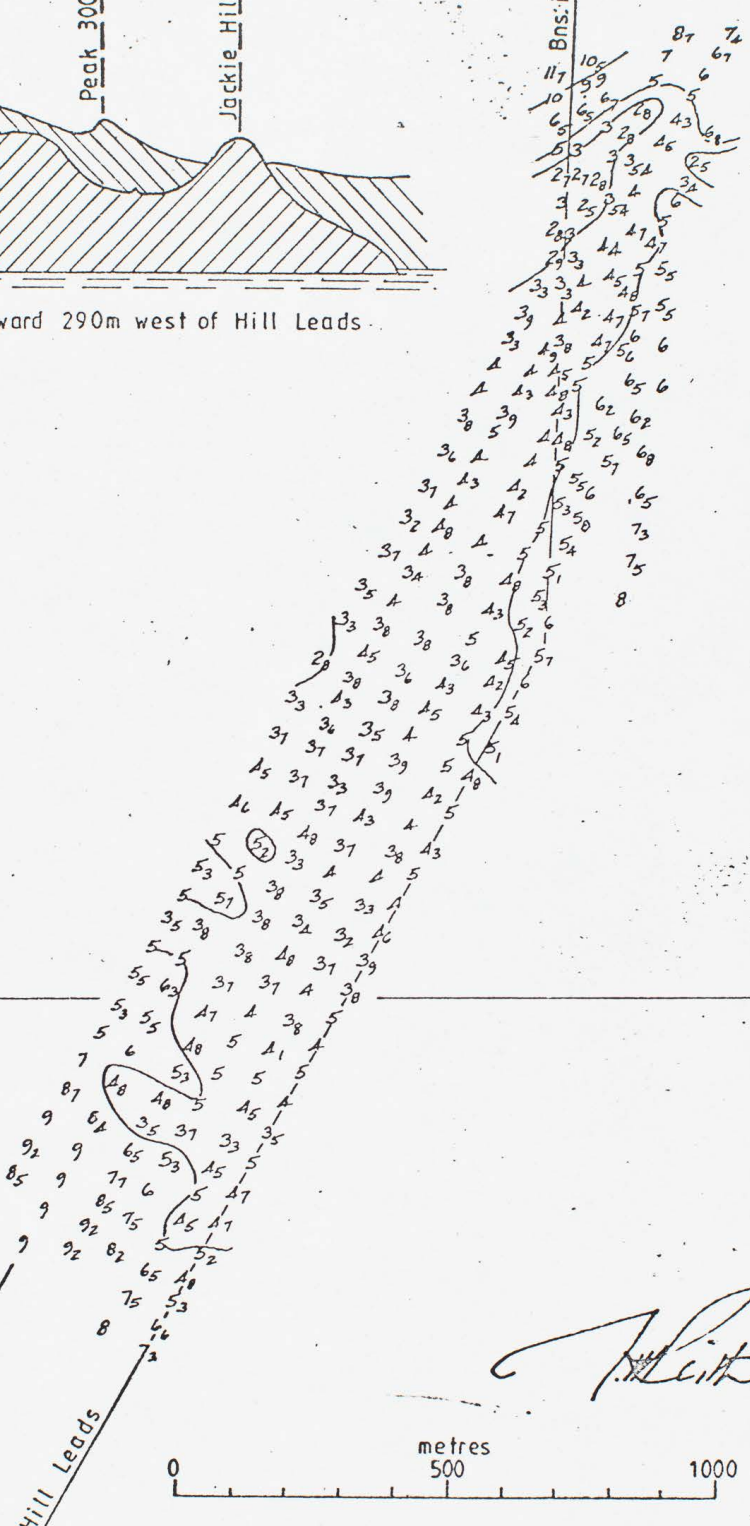


174° 32' E.



View from seaward 290m west of Hill Leads.

Bns: in line 002



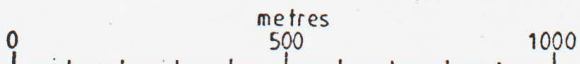
Light House

37° 04'

see view above

Hill Leads

*[Handwritten signature]*



MANUKAU HARBOUR ENTRANCE-SOUTH CHANNEL

Surveyed 27 July 1983

Soundings in metres & decimetres below C<sub>D</sub>.

DRAWN J.H.R.

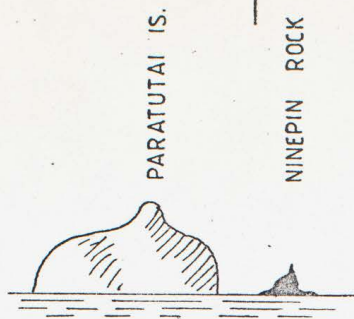
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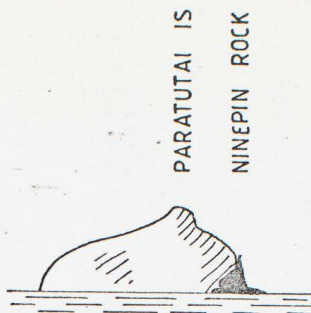
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H5/1/45

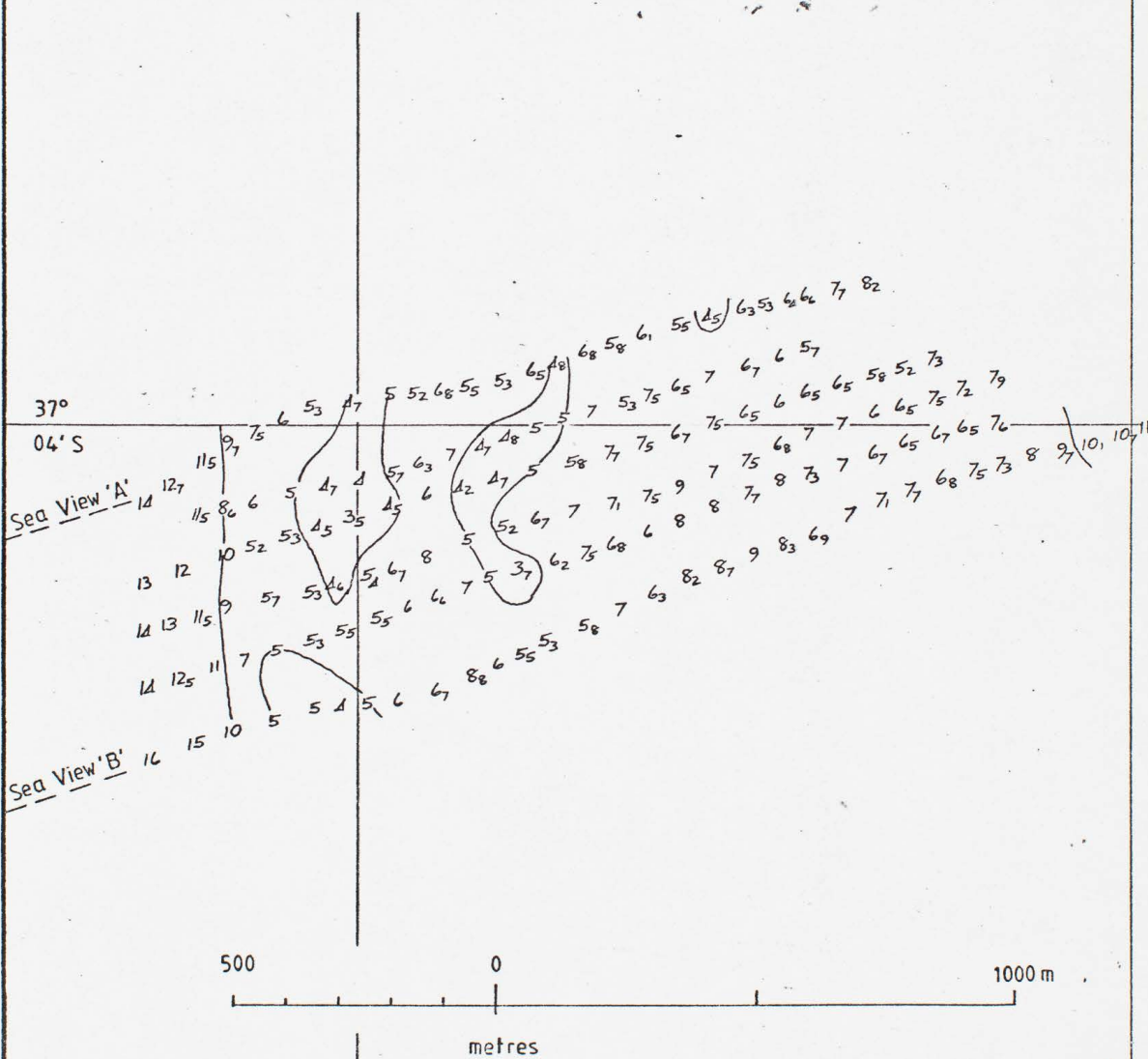
Amendment 4



VIEW 'A'  
Ninepin open two widths to south



VIEW 'B'  
Ninepin in line with southern edge Paratutai Is.



MANUKAU HARBOUR ENTRANCE-WESTERN SHOALS  
 Surveyed 18 Oct 1983  
 Soundings in metres & decimetres below C.D.

DRAWN RWB  
 DATE 19 10 83  
 SCALE 1:12,000

DRAWING  
 H5/1/46  
 Amendment 1

