

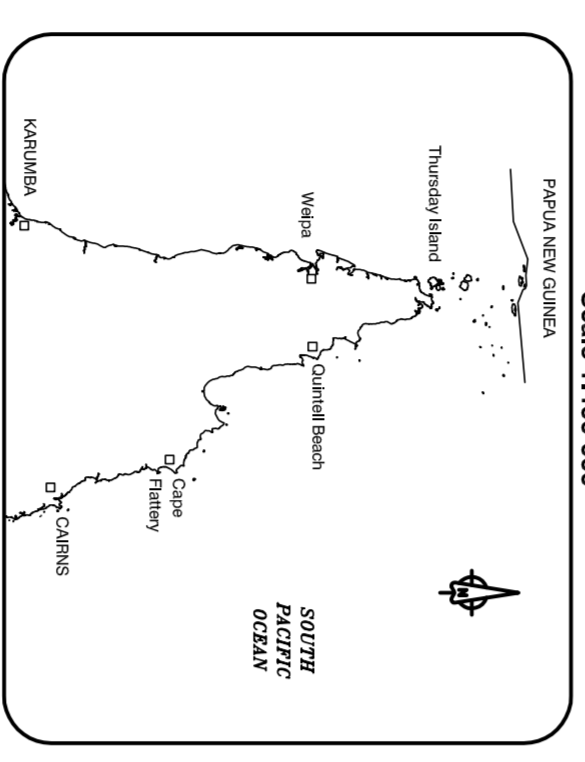
MATERIAL RELOCATION SITE
Position: (CENTRE)
464 787 E 8 074 168 N

KPS

ZONE 9001

ZONE 9000

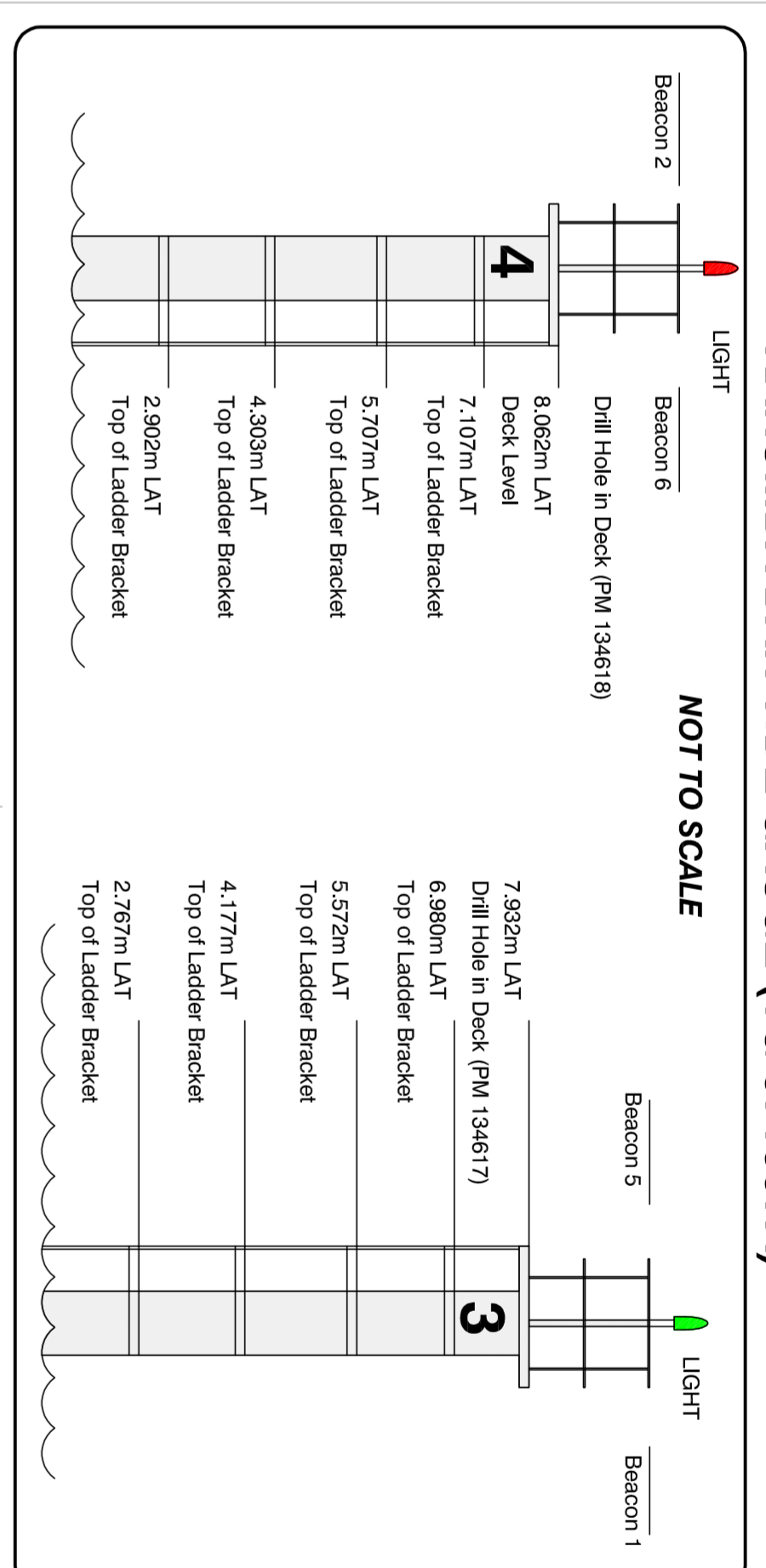
LOCALITY DIAGRAM
Scale 1:400 000



SURVEY CONTROL

CHAINAGE	EASTING	NORTHING
20000	478 114.7	8 070 413.7
20500	477 905.9	8 070 551.2
20950	477 897.0	8 070 688.6
21000	477 488.2	8 070 826.1
21000	477 279.4	8 070 963.6
21250	477 070.6	8 071 101.0
21500	476 861.8	8 071 238.5
21750	476 645.2	8 071 382.2
22000	476 402.6	8 071 418.3
22250	476 153.3	8 071 405.4
22500	475 904.4	8 071 381.3
22750	475 655.6	8 071 357.2
23000	475 406.8	8 071 333.2
23250	475 157.9	8 071 309.1
23500	474 909.1	8 071 285.0
23750	474 660.3	8 071 260.9
24000	474 411.4	8 071 236.9
24250	474 162.2	8 071 212.6
24500	473 916.2	8 071 188.4
24750	473 668.8	8 071 164.2
25000	473 422.1	8 071 140.1
25250	473 175.4	8 071 116.0
25500	472 928.7	8 071 91.9
25750	472 681.9	8 071 67.8
26000	472 435.2	8 071 43.7
26250	472 188.4	8 071 19.6
26500	471 941.3	8 071 95.5
26750	471 694.3	8 071 71.4
27000	471 447.3	8 071 47.3
27250	471 200.3	8 071 23.2
27500	470 953.3	8 071 99.1
27750	470 706.3	8 071 75.0
28000	470 459.3	8 071 50.9
28250	470 212.3	8 071 26.8
28500	470 410.6	8 071 177.6
28750	470 191.9	8 071 298.7
29000	469 973.2	8 071 419.9
29250	469 754.5	8 071 541.1
29500	469 535.8	8 071 662.2
29750	469 317.1	8 071 783.3
30000	469 098.5	8 071 904.3

SITE ID	SITE DESCRIPTION	EASTING	NORTHING	LATITUDE	LONGITUDE	AUSHYDROID HEIGHT	L98	RL	NOTES
2850	PM 112850	482 787.334	8 070 280.641	17°27'12.18203"	140°50'16.43242"	54.142	55.586	49.129	6.469
6321	PM 73321	482 974.313	8 068 902.946	17°29'02.11313"	140°50'22.67242"	55.298	57.286	49.324	8.092
BCKM	PM1134618 (Beacon No 4)	471 137.501	8 072 827.461	17°28'48.58109"	140°43'41.58956"	57.385	57.138	49.206	7.932
BCKM3	PM1134617 (Beacon No 3)	471 094.588	8 072 741.601	17°28'31.67800"	140°43'33.79822"	57.385	57.138	49.206	7.932
6314	PM 73314	481 779.410	8 068 632.077	17°27'33.28877"	140°49'42.24074"	54.657	56.514	49.209	7.905
2847	PM 112847	481 990.622	8 065 391.033	17°29'51.28880"	140°49'49.42790"	54.657	56.514	49.209	7.905
6677	PM 96677	481 666.913	8 068 670.818	17°27'32.00420"	140°49'32.99241"	56.514	58.568	49.206	7.987
K94S	QDOT Base Station	481 510.841	8 065 023.958	17°30'03.21144"	140°49'32.99241"	58.568	57.093	49.206	7.987
4068	PM1164068 (Front Lead)	474 374.626	8 070 980.329	17°28'48.13469"	140°45'31.24489"	57.093	57.093	49.206	7.987



STATION	EASTING	NORTHING
A	470 177.5	8 073 272.4
B	470 206.6	8 073 324.9
C	473 866.0	8 071 397.2
D	473 301.5	8 071 295.2
E	474 106.0	8 071 268.5
F	474 344.3	8 071 460.2
G	476 407.6	8 071 390.2
H	476 686.0	478 131.3
I	478 131.3	8 070 438.8
J	478 098.3	8 071 217.8
K	476 838.7	8 071 330.8
L	476 629.6	8 071 381.0
M	476 425.9	8 071 328.7
N	476 189.2	8 071 177.8
O	474 112.4	8 071 177.8
P	473 865.7	8 071 229.0

NAVIGATION AIDS

STATION	EASTING	NORTHING
KARUMBA POINT LIGHT	481 870.2	8 068 886.6
LANDFALL LIGHT	482 873.5	8 065 353.0
CENTRE WATER TOWER	482 873.6	8 065 354.9
FRONT LEAD ENTRANCE CH	474 974.7	8 070 981.3
REAR LEAD ENTRANCE CH	475 537.5	8 070 981.3
FARWAY BEACON	470 218.7	8 073 346.7
STARBOARD BEACON No 1	470 165.4	8 073 280.5
STARBOARD BEACON No 3	471 183.8	8 072 741.7
STARBOARD BEACON No 4	471 137.1	8 072 837.9
STARBOARD BEACON No 5	472 002.3	8 072 232.8
STARBOARD BEACON No 6	472 053.6	8 071 329.0
STARBOARD BEACON No 7	472 820.7	8 071 724.0
STARBOARD BEACON No 8	472 974.0	8 071 820.2
STARBOARD BEACON No 9 (FL MIDDLE CH)	473 880.9	8 071 186.5
REAR LEAD MIDDLE CHANNEL	473 119.5	8 071 111.8
SPECIAL BEACON No 10	474 008.8	8 071 288.5
STARBOARD BEACON No 11	474 354.1	8 071 176.0
STARBOARD BEACON No 12	474 343.5	8 071 285.5
STARBOARD BEACON No 13	475 282.9	8 071 284.0
STARBOARD BEACON No 14	475 282.3	8 071 373.3
SPECIAL BEACON No 15	476 090.0	8 071 278.3
SOUTH CARDINAL BEACON No 16	476 550.0	8 071 443.8
PORT BUOY No 17	476 829	8 071 200
PORT BUOY No 18	476 935.0	8 071 279.0
STARBOARD BEACON No 19	-	-
STARBOARD BEACON No 20	-	-
STARBOARD BEACON No 21	480 422.3	8 068 256.2
PORT BEACON No 22	479 073.4	8 070 093.8
STARBOARD BEACON No 23	482 448.4	8 068 048.9
PORT BEACON No 24	480 302.7	8 069 491.9
ALICATOR POINT SPECIAL BN	479 250	8 069 577
SPECIAL BUOY No 25	-	-
SPECIAL BUOY No 27	-	-
SPECIAL BUOY No 29	-	-

TIDAL REGIONS AND AUSHYDROID98 LIMITS

ZONE	STN	EASTING	NORTHING	L98
9001	9001-01	465 084 620	8 080 122 270	49 270
9001	9001-02	472 805 544	8 073 648 558	49 250
9001	9001-03	469 172 610	8 068 282 082	49 110
9001	9001-04	461 461 340	8 073 584 360	49 050
9000	9000-01	483 773 425	8 068 202 000	49 190
9000	9000-02	482 647 250	8 066 169 300	49 166
9000	9000-03	469 172 610	8 069 282 082	49 110
9000	9000-02	472 805 544	8 075 849 958	49 290
9002	9002-01	482 647 250	8 059 000 000	49 090
9002	9002-02	477 000 000	8 059 000 000	49 090
9002	9002-03	477 000 000	8 063 600 000	49 090
9002	9002-04	480 805 755	8 066 586 064	49 090
9000	9000-02	482 647 250	8 066 169 300	49 086

CHANNEL INTERSECTION POINTS

POINT	EASTING	NORTHING
WP 1 (30000)	469 085.5	8 073 904.5
WP 2 (24659.3)	473 770.1	8 071 316.3
WP 3 (24418.3)	473 992.2	8 071 323.8
WP 4 (24177.4)	474 234.6	8 071 219.8
WP 5 (22153.8)	476 283.9	8 071 416.6
WP 6 (21882.4)	476 538.3	8 071 396.8
WP 7 (21590.9)	476 785.8	8 071 288.5
WP 8 (23000)	478 114.7	8 070 413.7
WP 9	479 572.9	8 069 623.8
WP 10	481 242.2	8 069 067.1

NOTES

- PM 10222 is the Karumba Storm Surge Tide Station reference BM.
- PM 13461.7 & PM 13461.8 are the Karumba Bar Tide Station reference BM's.
- L98 values have been determined from a minimally constrained adjustment of GPS vectors based on PM 73321 (FL 6.469m LAT).
- The horizontal position of the survey control marks have been determined by a minimally constrained adjustment of GPS vectors based on PM 112847 (1st order class A horizontal control mark).

Horizontal Datum

Horizontal Datum	Eastings	Northings
Geoid	481 510.841	8 065 023.958
Vertical Datum	based on (1) PM 10222 (FL 6.469m LAT)	
Reference	(2) PM 13461.8 (FL 6.469m LAT)	

Compiled Plan

Scale	Class	Station	Control
0 400 800 1200 1600 2000	CLASS	Station	Control
0 400 800 1200 1600 2000	CLASS	Station	Control

Scale 1:40 000

Ports Corporation

Queensland Government

Hydrographic Services

KARUMBA CONTROL PLAN

MAY 2006

K955-142

CD File: K955142.DWG
Job No: GP 020049