PRELIMINARY INVESTIGATION CARRIED OUT BY W.B. THOMSON INTO THE FOUNDERING OF THE M.V. 'LADY ANN' OFF EXMOUTH, WESTERN AUSTRALIA ON 18TH SEPTEMBER 1982

As instructed I carried out a preliminary investigation into the sinking of the M.V. 'Lady Ann'.

I interviewed the following crew members from the 'Lady Ann' at Perth on 20 and 21 September 1982 :

Richard John Lowry	Master
Peter James Seabrooke	Chief Officer
Roger McBridge Broun	Chief Engineer
Brian Scoular McLean	Second Engineer
Paul Terrence Wright	Able Seaman
Robert John Carnegie	Able Seamen

On 23 September 1982 I interviewed the following aboard their respective vessels on location off Exmouth :

Lane Michael White : Master of M.V. 'Lady Sally'

James Leonard Flaxman : Master of drilling ship 'Regional Endeavour'

Robert Peter Lombardo : Master of standby vessel 'Miss Rankin'

Vincent Michael James Lombardo : Able Seaman on 'Miss Rankin'

On 28 September 1982 I recalled Roger McBride Broun to clarify some points.

Details of Ships

Name :	Lady Ann
Official Number:	374366
Port of Registry:	Sydney
Nationality:	Australian
Owners:	Australian Offshore Services, 356 Collins Street, Melbourne. Vic.
Tonnages:	1,160.41 gross 628.51 register
Dimensions:	Length 185.21 feet, breadth 43.29 feet, depth 14.00 feet
Propulsion:	4 x 1600 B.H.P. diesel engines driving twin screws Electric bow thruster
Type of Ship:	Offshore supply vessel
Built:	1975 Carrington Slipways Pty Ltd, Old Punt Road, Tomago. N.S.W.

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'Lady Ann' Certificates

Cargo Ship Safety Equipment - issued 10/11/81 expiry 27/10/82
- Department of Transport & Construction

Cargo Ship Safety Radiotelephony - issued 10/11/81 expiry 27/10/82
- Department of Transport & Construction

International Loadline Certificate - issued 12/l/82 expiry 25/10/86
- Lloyds Register

Certificate of Class - issued 18/2/82 - Lloyds Register

Cargo Ship Safety Construction - expiry 25/10/86 - Lloyds Register

Sliding watertight doors fitted between engine room and cement room forward and engine room and tunnel recess aft. Sliding watertight door between tunnel recess and steering gear compartment.

Name of Ship:	Regional Endeavour
Official Number:	315398
Port of Registry:	Sydney
Nationality:	Australian
Owners:	Seltrust Mining Corporation, 50 St. George's Terrace, Perth, W.A.
Tonnages:	10371.85 Gross 4551.40 Register
Dimensions:	Length 498.5 feet, breadth 64.1 feet, depth 29.8 feet
Type of Ship:	Self-propelled drillship

Vessel moors with a pattern of 8 anchors and has 'cow catchers' for stowage of these anchors. On the starboard side the after end of the forward cow catcher is on frame 167. The forward end of the after 'cow catcher' (No.3 anchor) is on frame 52. The distance between the two is approximately 93.47 metres (306.6 feet).

NARRATIVE

The 'Lady Ann' assisted in the recovery of the drilling Ship 'Regional Endeavour's' anchors at North Tutle No.1 well and was due to assist in anchoring the 'Regional Endeavour' at Novara No.1 well on the morning of 18 September 1982. During the operation at North Turtle No.1 the 'Lady Ann' took on board the 'Regional Endeavour's' No.6 anchor and the 500 foot steel wire buoy pennant that was tangled around it. The anchor was disconnected from the 'Regional Endeavour's' cable and the Master of the 'Lady Ann', Captain Lowry, undertook to disentangle the pennant and prepare the anchor and pennant for re-use at the new location. This was done on passage between the wells but it was found that the pennant was too damaged for further use. It was coiled up.

The 'Lady Ann' was anchored in Exmouth Gulf on the night of the 17th from where it got under way at 0230 to keep an 0500 rendevous with the 'Regional Endeavour' as the latter approached the new drilling location. Captain Lowry assumed the con at 0445. At this time all four main engines were operating as were both steering engines and the bow thruster engine.

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The three below deck watertight doors were closed.

As the 'Lady Ann' approached the 'Regional Endeavour' the two masters discussed the forthcoming operation by V.H.F. and decided that the damaged pennant should be lifted onto the rig to give the 'Lady Ann' a clear deck for re-connecting No.6 anchor to its cable. The 'Regional Endeavour' would steam so as to give a lee on the starboard side and the 'Lady Ann' would come in on a parrallel course until it was some 10 or 15 feet off where the coil would be lifted off by the 'Regional Endeavour's' crane forward of the drilling tower.

At this time Captain Lowry recalls the 'Regional Endeavour' was heading about 260 degrees with a South South East Wind of 20 knots end a sea of 1.5 metres. Swell was S.S.W. 2 - 2.5 metres. Captain Flaxman on the 'Regional Endeavour' states they were on a course of 240 degrees with wind 215 degrees 18 knots sea of 1 metre and also a swell of 2.5 metres from the same direction. Captain Flaxman estimates the 'Regional Endeavour's' speed at 2 - 2.5 knots but Captain Lowry and Chief Officer Seabrooke think it may have been a little more.

The 'Lady Ann' approached the 'Regional Endeavour' from astern until it was abreast of the helipad at the stern at a distance estimated by Captain Lowry to be 80 to 100 feet. Captain Lowry then eased the 'Lady Ann' ahead but as the bow of his vessel drew level with the drilling platform he notices that the bow was closing towards the 'Regional Endeavour'. He attempted to counteract this with full starboard bow thrust and when this did not have the desired effect stopped the port engine and put the starboard full astern. These measures were not successful and the 'Lady Ann' struck the 'Regional Endeavour' on a fender at frame 85, her bow then caught handrails at the base of a crane at frame 73 and a liferaft stand at frame 58 as she fell astern. Damage from these contacts appeared superficial but shortly afterwards the Second Engineer reported that the engine room was flooding through a hole on on the port side. This hole took the form of a horizontal gash about 2 feet long about 3 feet aft of the forward bulkhead and about 9 inches below the floor plates. It was almost certainly caused by contact with the mud plate on the 'Regional Endeavour's' No.3 anchor which was stowed on a cow catcher at frame 52. The gash was below a stringer and the shell plating had been pushed in to form a triangle which prevented any action to plug the hole from inside.

After inspecting the damage and consulting with the Chief Engineer Captain Lowry decided his best course of action was to attempt to beach the vessel. He set course for Exmouth and asked the other rig service vessel the 'Lady Sally' and the standby vessel 'Miss Rankin' to escort him in. Inspection of the cement room showed it to be dry.

Initially one pump was used to pump ballast from Nos 3 and 5 port tanks but after some ten minutes both pumps were put on the bilges and, when the water got high enough, an attempt was made to draw the main engine cooling water from the bilges by means of the emergency suctions. The Second Engineer also tried to break the suction line on a large pump for the fire monitor to enable it to suck from the water in the engine room. He was unable to do this before the Chief Engineer decided to abandon the engine room. All machinery was then stopped.

Some attempt was made to prepare a collision mat but this was not carried on with after the engine room was abandoned and effort was concentrated on closing all internal doors and all exterior doors, deadlights and flaps.

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Both liferafts were also put into the water as a precautionary measure. All personnel were taken off by the 'Lady Sally' at 0630. At this time they were all sure that the three main watertight doors were shut and that all possible doors, scuttles and flaps, except a fire door in the cement room, were shut.

At 0715 Captain Lowry' having observed that the vessel was floating with a slight starboard list and on an even keel with the deck just clear of the water, reboarded with A.Bs Wright and Carnegie to rig a tow line. The line was rigged but at about 0820, before any weight was put on it, the ship listed about 45 degrees to starboard suddenly. The three men abandoned ship, Wright jumping into a liferaft whilst Lowry and Carnegie went over the port side into the water. They were rescued by the 'Miss Rankin'.

A photograph taken at this time shows the vessel listed some 45 degrees to starboard with the sea almost up to the skylight on the forecastle deck. From here the line of the waters edge extends diagonally along the main deck to the port quarter. After taking this position the vessel continued listing to starboard and settling further by the stern until it was practically on its side before sinking stern first at 0925.

The Master of the 'Lady Sally' obtained a position of 21 degrees 24.2 minutes South and 114 degrees 12.3 minutes East by radar bearing and distance from North West Cape.

OPINION

The accident was caused by an error of judgement on the part of the Master of the 'Lady Ann', Captain Richard John Lowry. He had never attempted such a manouvre to a rig making way through the water before (A43) and seems to have misjudged his approach, possibly failing to appreciate the leeway the 'Regional Endeavour' was making and probably going too fast (A115). He did not appreciate and allow early enough for the interaction between the 'Regional Endeavour' and his vessel. His action in stopping the port engine and using the bow thruster and starboard engine astern to attempt to straighten up was obviously instinctive and would probably have been correct had the 'Regional Endeavour' not been making way. As the 'Regional Endeavour' was moving it seems inappropriate.

Able seaman Carnegie thought that the 'Regional Endeavour' was swinging to port (A150) but I question his ability to assess this from the deck of the 'Lady Ann' as she was being swept around the 'Regional Endeavour's' stern. Chief Officer Seabrooke (A113)was very indefinite and I think only said the 'Regional Endeavour' might have been coming to port out of loyalty to Captain Lowry. Captain Flaxman of the 'Regional Endeavour' was firm (A176) that his ship was on a steady heading of 240 degrees. I do not therefore believe that any change of heading by the 'Regional Endeavour' contributed to this accident.

Captain Lowry's actions after the accident appear to have been correct. With hindsight it, could be said that as it was not practicable to deal with the leak from the inside (A13, A49) the only chance to have saved his ship was to have controlled the ingress of water by some form of collision mat. This would have been difficult to improvise and rig in the circumstances and his decision to make a run for the beach some 26 miles distant appears reasonable. His action in closing up the vessel and leaving it after the engine room had to be abandoned appears sensible. The vessels intact condition corresponded closely with condition 12 (anchor handling) in the approved

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stability booklet and it was reasonable to assume that the vessel would float with the engine room flooded.

The vessel seems to have had adequate buoyancy in the upright condition but calculation by the Department's Naval Architect shows that there was virtually no righting lever with the engine room flooded. When the vessel took the large list to starboard the engine room access on the starboard Side of the foredeck at frame 58 would have been submerged. There was an A60 fire door there giving access to the accommodation (A96). It is reasonable to assume that even if this did not fail completely it would distort and allow flooding from the engine room into the forepart of the ship. There is also a possibility of leakage through the shaft glands on the bulkhead at frame 32 into the tunnel space and leakage down into the tanks through submerged airpipes. In this context the anchor on deck was seen to shift (A195) and could have sheared air pipes on the starboard side. The interconnection of Number 7 double bottom tanks mentioned by Mr Broun (A104) would also tend to increase the list.

I consider that there is no reason to believe that any of the below deck watertight doors were open or that any bulkhead failure contributed to the loss of this vessel. I also consider that after the accident Captain Lowry and his crew performed well in difficult circumstances.

There was no failure of lifesaving or other equipment.

CONCLUSIONS

From my investigation I have arrived at the following conclusions in regard to the terms of reference :

a) Seaworthiness and stability of vessel - The 'Lady Ann' was seaworthy and the intact stability at the time of the accident was closely in accordance with condition 12 (Anchor Handling) in the approved stability book.

b) stowage of cargo , stores fuel and water - as above

c) Manning and qualification of crew 'Lady Ann' carried the prescribed number plus an additional greaser. However the Second Engineer's qualification of a U.K. Department of Trade Class 4 certificate is below the prescribed First Class Coastal Motor Certificate. All other qualifications were as prescribed.

d) Events prior and subsequent to the foundering - described in narrative.

e) Which compartment was holed and were the watertight doors required to be kept closed at sea - the engine room was holed and it was the practice to keep the below deck watertight doors closed at sea except when it was necessary to go into the compartments concerned.

RECOMMENDATION

Apart from the initial error of judgement Captain Lowry seems to have performed well. I have no doubts as to his general competence or

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sobriety on this occasion. The initial error is attributable to inexperience in the type of operation being attempted and perhaps overconfidence. I do not think any further action on this score is warranted.

The subsequent foundering of the 'Lady Ann' is attributable to the design of the vessel rather than any failure of the ship,, its equipment or the personnel aboard. I do not therefore consider that a Court of Marine Inquiry is warranted. However I recommend that the Department investigates the damaged stability of the 'Lady Ann's' sister ships and similar vessels and considers whether a watertight door on the engine room access is desirable. Some thought should also be given to providing more guidance to the Master in regard to the damaged stability of these high risk vessels. At least the floodable volumes and free surface effects of the main below deck compartments should be given. Consideration should also be given to fitting emergency suctions to allow the use of high volume fire pumps, like the one on this vessel, to pump from the engine room.

W. B. Thomson.

W. B. THOMSON
Acting Senior Marine Surveyor

1/10/82.