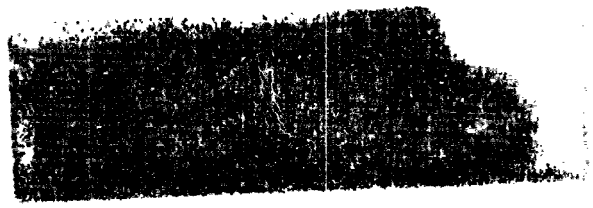
Environment Canada
Environmental Protection

Environnement Canada
Protection de l'environnement



Shellfish Growing Water Sanitary Survey of Denman Island, British Columbia, 1974

Surveillance Report EPS 5-PR-74-9

Pacific Region
November, 1974

ENVIRONMENTAL PROTECTION SERVICE REPORT SERIES

Surveillance reports present the results of monitoring programs carried out by the Environmental Protection Service. These reports will usually be published on a regular basis.

Other categories in the EPS series include such groups as Regulations, Codes and Protocols, Policy and Planning, Technical Appraisal, Technology Developments, Surveillance and Reprints of Published Papers.

Inquiries pertaining to Environmental Protection Service Reports should be directed to the Environmental Protection Service, Department of the Environment, Kapilano 100, Park Royal, West Vancouver, B.C. V7T 1A2.

SHELLFISH GROWING WATER SANITARY SURVEY

OF

DENMAN ISLAND

by

G. D. Derksen, B. Sc.
and
T. J. Tevendale, P. Eng.

Pollution Abatement Branch
Environmental Protection Service
Pacific Region
Vancouver, B.C.

Report EPS 5-PR-74-9
November, 1974

ABSTRACT

A sanitary survey of the foreshore waters on the west side of Denman Island, Baynes Sound was conducted during February 12 to March 1, 1974 and April 17 to May 3, 1974 by personnel of the Environmental Protection Service, Pacific Region.

The purpose of the survey was to evaluate the bacteriological quality of the shellfish growing waters, to identify sources of bacterial contamination and to classify the area surveyed with respect to shellfish growing water standards.

A total of 124 sea water samples from 16 locations and 41 stream samples from 10 locations were collected and analysed for coliform and fecal coliform numbers using the 5-tube MPN method.

The bacteriological results indicate that the shellfish growing waters on the west side of Denman Island, Baynes Sound are of an acceptable quality.

RÉSUMÉ

Le personnel du Service de protection de l'environnement de la région du Pacifique a entrepris entre le 12 février et le 1er mars 1974, puis entre le 17 avril et le 3 mai 1974, une étude sanitaire des eaux côtières de l'ouest de l'île Denman, dans le détroit de Baynes.

Le but de cette étude était d'évaluer la qualité bactériologique des eaux où vivent les crustacés, pour déceler les sources de contamination bactériologique, et pour classer les zones étudiées en fonction des normes applicables à ces eaux.

Au total, 124 prélèvements d'eau de mer provenant de 16 endroits, et 41 échantillons d'eau douce provenant de 10 endroits ont été analysés selon la méthode 5-tube MPN pour dénombrer les coliformes et les coliformes fécaux.

Les résultats bactériologiques ont démontré que la qualité de ces eaux sur la côte ouest de l'île Denman, dans le détroit de Baynes, est acceptable.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION

Baynes Sound (Fisheries Statistical Area 14) is one of the main commercial oyster growing areas of British Columbia. Oyster leases in this area supply four local shucking plants as well as other commercial plants throughout southern British Columbia. Commercial oyster leases are located along the entire length of the west side of Denman Island.

The Denman Island area was last surveyed November 26 to November 30, 1964 and April 21 to April 28, 1964 by the Departments of Fisheries and National Health and Welfare. A recommendation was made to carry out further sampling in the area with particular reference to oyster lease 245, Denman Island.

Personnel of the Shellfish Water Quality Program, Environmental Protection Service, Pacific Region, carried out a two part survey of Baynes Sound from February 12 to March 1, 1974 and from April 17 to May 3, 1974. On the west side of Denman Island, particular attention was given to oyster lease 211, Henry Bay, an oyster relay area for oysters harvested from Comox Harbour, and to oyster leases 248 and 245 from which oyster shellstock tested by the Fish Inspection Branch, Fisheries and Marine Service had shown higher than acceptable fecal levels.

2. FIELD PROCEDURES AND METHODS

Sample stations were selected and a bacteriological water testing program developed to assess the shellfish growing water quality and the sources of fecal pollution.

2.1 Bacteriological Sampling and Analyses

All samples for bacteriological analyses were collected in sterile 6 ounce wide-mouth bottles approximately 6 inches to one foot below the water surface at water depths not exceeding 4 feet. Samples were collected by boat or by wading and stored in coolers at temperatures not exceeding 10°C until processed. Analyses were carried out in the Environmental Protection Service

mobile laboratory located at Fanny Bay, Vancouver Island, for the duration of the survey and samples processed within four hours of collection. The total confirmed coliform MPN per 100 ml was determined using the multiple tube fermentation technique (at least 3 decimal dilutions of 5 tubes each) as described in Part 407A of the 13th edition of Standard Methods for the Examination of Water and Wastewater.(2)

The fecal coliform MPN per 100 ml was determined as described in Part 407C of Standard Methods. Incubation was for 24 ± 2 hours in a circulating water bath maintained at $44.5° \pm 0.2°C$.

Lauryl Tryptose Broth and Brilliant Green Bile Broth media were used for the confirmed coliform MPN determinations and EC medium for the fecal coliform test.[1]

2.2 Physical Testing Equipment and Analyses

Temperature and salinity measurements were determined six inches to one foot below the water surface using a Beckman Model RB3-349 Solubridge Electrolytic Conductivity Meter. Tide data is for the Point Atkinson reference port. Daily rainfall and wind velocity was that recorded at the Canadian Forces Base, Comox. Results are presented in Appendix II.

2.3 Shellstock Sampling and Analyses

Oyster specimens were collected at low tide and stored in coolers at temperatures not exceeding 10°C until delivered to the laboratory. Analyses were carried out by the Fish Inspection Laboratories, Vancouver, and were performed within 6 hours of collection. At least 12 oysters were collected for each sample lot submitted.

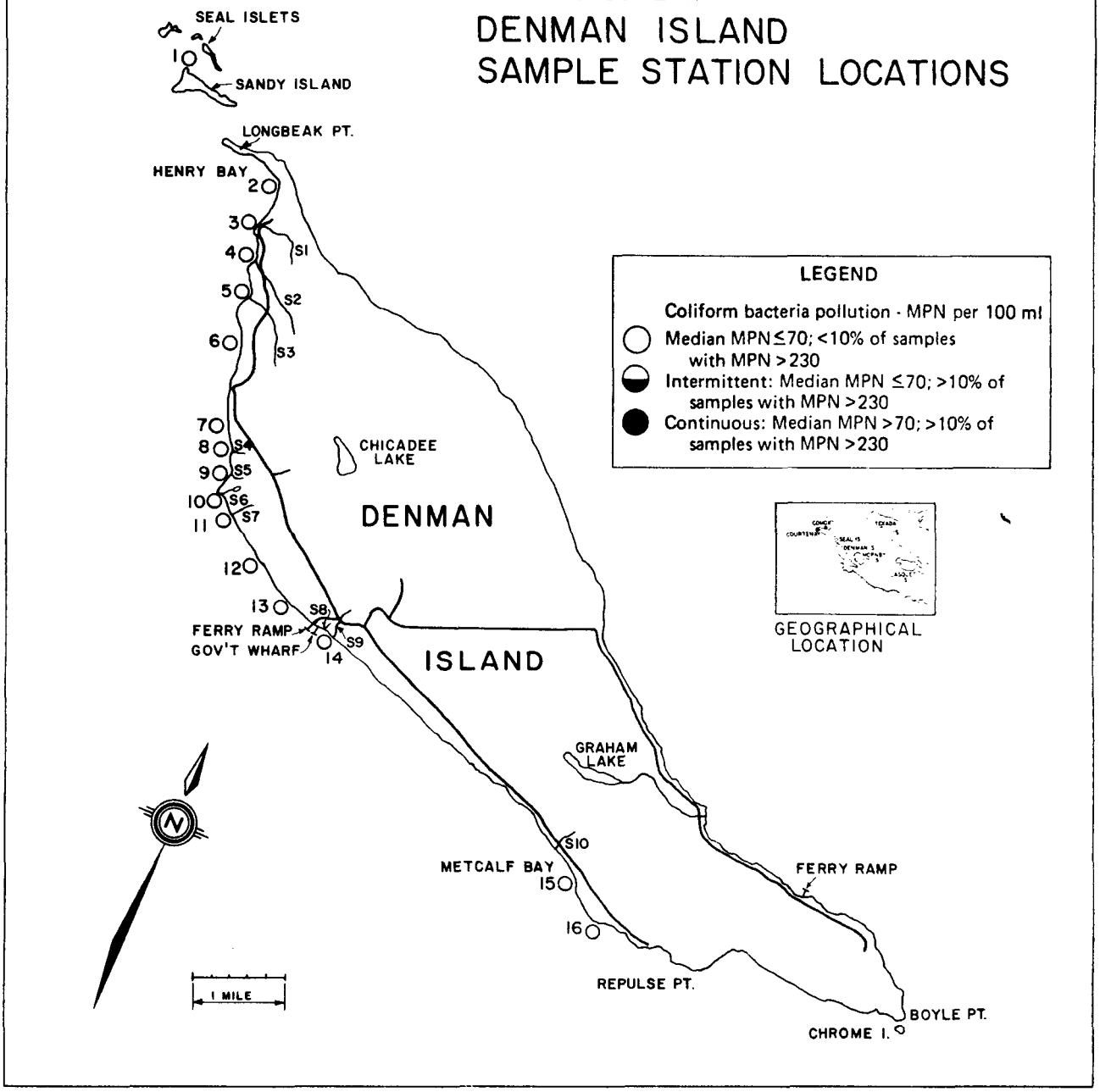
3. DISCUSSION OF RESULTS

Sample station locations are shown in Figure 1. The sample station locations are described in Tables 7 and 8 of

[1] All test media used was Bacto branch, obtained from Difco Laboratories, Detroit, Michigan.

FIGURE I.

DENMAN ISLAND SAMPLE STATION LOCATIONS



Appendix I. Total and fecal coliform results for shellfish growing waters and freshwater streams are summarized in Tables 1 to 3. Fecal coliform data for oyster shellstock samples is presented in Table 4. Daily bacteriological results and a description of daily sampling conditions at individual sample stations are presented in Tables 9 and 10 of Appendix II. As a point of interest and future reference, fecal coliform data is summarized (Table 11 of Appendix II) in terms of the two recently proposed fecal coliform growing water standards presently under consideration by the National Shellfish Sanitation Program. Rainfall data recorded during the survey period is shown in Figure 2. Bacteriological and rainfall data for the November 1964 shellfish growing water sanitary survey is shown in Tables 5 and 6.

In order that an area can be considered bacteriologically safe for the harvesting of shellfish, the total confirmed coliform median MPN of the water must not exceed 70 per 100 ml, and not more than 10 percent of the samples ordinarily exceed an MPN of 230 per 100 ml for a 5-tube decimal dilution test in those portions of the area most probably exposed to fecal contamination during the most unfavourable hydrographic and pollution conditions. The foregoing limits need not be applied if it can be shown by detailed study that the coliforms are not of direct fecal origin and do not indicate a public health hazard. (1)

On the basis of these bacteriological standards, all of the sample stations fall within the acceptable water quality limits (Table 1). The high water quality is a reflection of the small and scattered population of Denman Island. Tidal flushing combined with wind induced mixing and dilution adequately reduces the bacterial densities resulting from any contaminated freshwater inputs. Although there was evidence of fecal contamination in some of the freshwater streams, the total contribution to the receiving waters during the survey period was

TABLE 1 : SUMMARY OF TOTAL CONFIRMED COLIFORM MPN DATA FOR SHELLFISH GROWING WATER SAMPLES

Sample Station	Number of Samples	MPN Range	Median MPN per 100 mℓ	% Exceeding 230 MPN/100 mℓ
1	6	2.0 - 33	7.3	0.0
2	6	< 1.8 - 17	∿ 1.9	0.0
3	6	< 1.8 - 11	2.0	0.0
4	6	< 1.8 - 11	3.3	0.0
5	6	< 1.8 - 4.0	∿ 1.9	0.0
6	6	< 1.8 - 17	3.0	0.0
7	6	< 1.8 - 4.5	2.0	0.0
8	10	< 1.8 - 49	< 1.8	0.0
9	10	< 1.8 - 130	< 1.8	0.0
10	10	< 1.8 - 7.8	∿ 1.9	0.0
11	10	< 1.8 - 22	< 1.8	0.0
12	6	< 1.8 - 4.5	< 1.8	0.0
13	6	< 1.8 - 33	2.0	0.0
14	11	< 1.8 - 110	11	0.0
15	11	< 1.8 - 170	4.0	0.0
16	8	< 1.8 - 23	5.6	0.0

TABLE 2 : SUMMARY OF FECAL COLIFORM MPN DATA FOR SHELLFISH GROWING WATER SAMPLES

Sample Station	Number of Samples	MPN Range	Median MPN per 100 mℓ
1	6	< 1.8 - 4.5	< 1.8
2	6	< 1.8 - 2.0	< 1.8
3	6	< 1.8 - 2.0	< 1.8
4	6	< 1.8 - 7.8	< 1.8
5	6	< 1.8 - 2.0	< 1.8
6	6	< 1.8 - 2.0	1.8
7	6	< 1.8 - 2.0	< 1.8
8	10	< 1.8 - 2.0	< 1.8
9	10	< 1.8 - 7.8	< 1.8
10	10	< 1.8 - 4.5	< 1.8
11	10	< 1.8 - 4.5	< 1.8
12	6	< 1.8 - 2.0	< 1.8
13	6	< 1.8 - 4.5	∿ 1.9
14	11	< 1.8 - 33	2.0
15	11	< 1.8 - 21	< 1.8
16	8	< 1.8 - 4.0	1.8

TABLE 3: SUMMARY OF BACTERIOLOGICAL MPN DATA FOR FRESHWATER SAMPLES

Sample Station	Number of Samples	Coliform MPN Range (per 100 mℓ)	
		Total Confirmed	Fecal
S1	4	2.0 - 78	2.0 - 45
S2	4	1.8 - 220	<1.8 -<18
S3	3	11 - 240	11 - 33
S4	4	33 - 920	2.0 -<20
S5	5	17 - 1600	7.8 - 350
S6	5	4.5 - 1600	2.0 - 170
S7	4	4.5 - 34	4.5 - 34
S8	4	1600 - 9200	29 - 1300
S9	5	79 - 1600	79 - 240
S10	3	2.0 - 1600	<1.8 - 4.5

not sufficient to significantly impair the water quality (Table 3). The fecal coliform levels for shellstock samples taken from Lots 211, 248 and 245 were satisfactory (Table 4).

3.1 Seal Islets and Sandy Island

There is no residential population located on the Seal Islets or on Sandy Island. The low bacteriological levels of water samples taken at the Comox Bar Light Beacon, at mid-channel of the north end of Baynes Sound (Report EPS 5-PR-74-13) [3] and at sample station 1 indicate that the City of Comox raw sewage discharge does not have a significant influence on the shellfish growing water quality of northern Baynes Sound (Table 1).

3.2 Henry Bay

Oyster lease 211, Denman Island, extends the entire length of Henry Bay. Sample stations 3, 4 and 5 were located off the mouth of freshwater streams S1, S2 and S3, which drain into Henry Bay. Sample station 5 is just north of oyster lease 202. The total contribution to the receiving waters from these freshwater inputs was not sufficient to significantly reduce the water quality (Table 1). Wild deer would appear to be the only possible source of fecal contamination to the creeks draining into Henry Bay.

3.3 Denman Point (North Side)

Sample stations 7, 8 and 9 were located over oyster leases 305, 248 and 232 respectively. Sample stations S4 and S5 are seasonally intermittent creeks entering the sea in the vicinity of leases 248 and 232 respectively. The septic tank absorption field for the house adjacent to S4 was within 10 feet of the creek and the tile field can be considered a suspect source of contamination during periods of high water table. Creek S5 drains a bush area to which a few cattle have access. Due to the intermittent low flows, the total coliform contribution from these freshwater inputs was not sufficient to significantly reduce the water quality (Table 1).

3.4 Denman Point (South Side)

Sample stations 10 and 11 were located over oyster lease 245 and positioned directly opposite the mouths of seasonally intermittent creeks S6 and S7 respectively. Possible sources of contamination to these freshwater streams include a small fenced-in reservoir which can be contaminated with surface runoff from a nearby barn and pasture. Creek S6 drains this reservoir and cattle have direct access to 150 feet of the creek which runs for approximately another 300 feet before reaching the foreshore. At times there are approximately 80 head of cattle in the immediate vicinity of the barn. Cattle do not have direct access to Creek S7 but surface runoff carrying fecal matters from pasture areas should be considered a likely source of contamination. Although the present data does not show excessively high fecal contamination of either freshwater streams (Table 3), results during the November, 1964 survey indicated that high fecal levels can occur (Table 5).

The coliform counts for water samples from stations 10 and 11 were found to be at acceptable levels throughout the survey and oyster meats from lease 245 showed low fecal contamination (Table 4). During the two days of significantly high rainfall, April 25-26, 1974, higher coliform levels found in the creeks did not produce corresponding increases in bacterial counts in the receiving water.

During periods of continued high rain-induced runoff, however, a significant rise in the bacterial densities of Creeks S6 and S7 could result in a significant decline in the offshore water quality over lease 245. This supposition is supported by data from the 1964 survey (Table 6) which shows that the bacteriological quality of the offshore waters does experience a significant decline during periods of heavy precipitation.

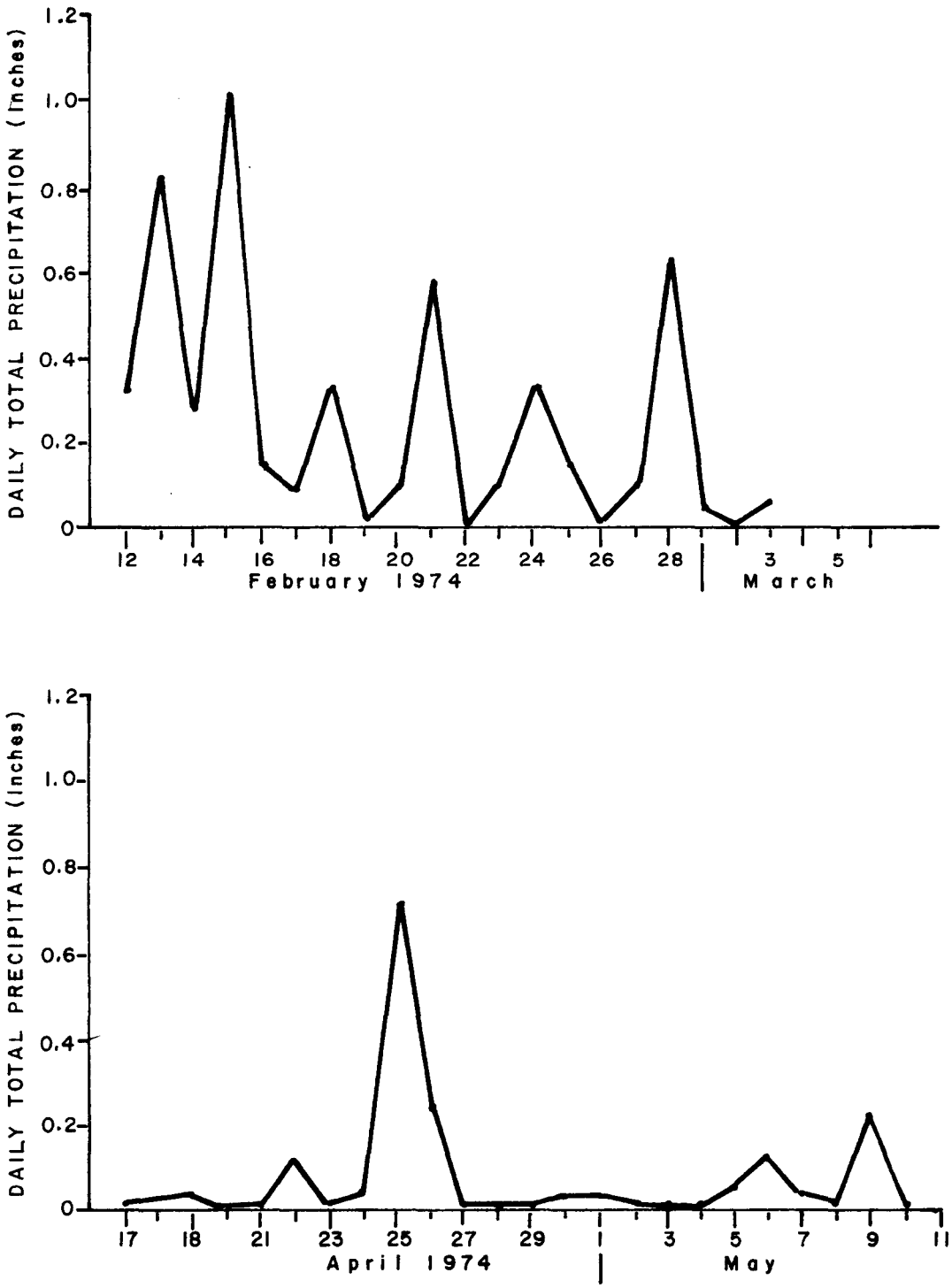


FIGURE 2 PRECIPITATION DATA

TABLE 4: FECAL COLIFORM DATA FOR SHELLSTOCK SAMPLES *

Lot Number	Time of Sampling	Date Sampled	Date Inspected	Fecal Coliform MPN/100 g
B.C. Packers 211 (1)	0830	Apr. 30/74	Apr. 30/74	<20
Nordman 248 (2)	0900	Apr. 30/74	Apr. 30/74	<20
Wright 245 (3)	0915	Apr. 30/74	Apr. 30/74	<20
Wright 245 (4)	0925	Apr. 30/74	Apr. 30/74	<20

* Analyzed by Fish Inspection Branch, Fisheries Service, Vancouver

(1) taken at sample station 3
(2) taken at sample station 8
(3) taken at sample station 10
(4) taken at sample station 11

TABLE 5: BACTERIOLOGICAL MPN AND RAINFALL DATA FOR FRESHWATER SAMPLES NOVEMBER, 1964 SURVEY

Sample Station	Date 1964	Coliform MPN/100 ml Total	Coliform MPN/100 ml Fecal	Precipitation Inches
S15 (1)	Nov. 28	---	---	0.6
"	Nov. 29	23	3.6	1.0
"	Nov. 30	2400+	2400+	0.48
S4 (2)	Nov. 26	---	---	Trace
"	Nov. 27	23	23	6.0 (snow)
"	Nov. 28	---	---	0.6
"	Nov. 29	2400+	2400+	1.0
"	Nov. 30	2400+	460+	0.48

(1) S6 of 1974 survey
(2) S7 of 1974 survey

TABLE 6: BACTERIOLOGICAL MPN AND RAINFALL DATA FOR SHELLFISH GROWING WATER SAMPLES NOVEMBER, 1964 SURVEY

Sample Station	Date 1964	Coliform MPN/100 ml Total	Coliform MPN/100 ml Fecal	Precipitation Inches	Fecal Coliform MPN/100 g
4N (1)	Nov. 26	--	--	0.1	
"	Nov. 27	23	23	6.0 (snow)	
"	Nov. 28 (AM)	<3	<3	0.6	
"	Nov. 28 (PM)	3.6	<3	0.6	
"	Nov. 29	23	23	1.0	20
"	Nov. 30	240	93	0.48	20
	Median	23	23		
4S (2)	Nov. 26	--	--	0.1	
"	Nov. 27	93	43	6.0 (snow)	
"	Nov. 28 (AM)	3	3	0.6	
"	Nov. 28 (PM)	3.6	3.6	0.6	
"	Nov. 29	75	9.1	1.0	20
"	Nov. 30	240	93	0.48	20
	Median	75	9.1		

(1) sample station 11 of 1974 survey
(2) sample taken at south end of Lot 245

3.5 Denman Island Ferry Terminus

Sample station 14 was located approximately 400 feet south of the Government Wharf and was positioned just north of creek S9. Creek sample station S8 crosses the foreshore nearer the wharf. Although the fecal coliform densities in the two freshwater streams were significantly high (Table 3), the total input was not sufficient to significantly reduce the water quality at sample station 14 (Table 1). The high fecal counts obtained in samples from stations S8 and S9 could have resulted from a combination of surface drainage from pasture land and ditches draining the dozen homes located on the hillside above the ferry terminus. The septic tank-absorption field at the ferry terminus appeared to be functioning adequately. The registered average 24-hour discharge of domestic sewage from the Denman Island Ferry is 200 Imperial gallons. The Schedule J 400 foot general wharf closure is adequate for this area.

3.6 Metcalf Bay

Homes in the Metcalf Bay area are primarily summer residences with septic tank-absorption fields located a sufficient distance from the foreshore that significant contamination of the foreshore waters due to seepage is unlikely.

4. CONCLUSIONS

1. The coliform levels obtained during the survey showed that the foreshore waters along the west side of Denman Island comply with the shellfish growing water quality standards.

2. The fecal coliform levels for shellstock samples collected from oyster leases 211, 248 and 245 were satisfactory.

3. The city of Comox raw sewage discharge does not have a significant influence on the shellfish growing water quality of northern Baynes Sound.

4. The foreshore water quality of Henry Bay, Denman Island is satisfactory for the relaying of oysters from contaminated areas.

5. The 80 head of cattle on the Lone Pine Farm present a significant health hazard. During periods of high rain induced runoff, landwash from pasture land entering freshwater streams S6 and S7 could significantly reduce the shellfish growing water quality in the vicinity of oyster lease 245. Bacteriological data from the Fish Inspection Branch, Fisheries and Marine Service, show unacceptably high fecal coliform levels in oyster meats taken from this area during the months of September to November 1973 and 1974.

6. The existing Schedule J 400 foot general wharf closure is considered to be adequate for the Denman Island Ferry Terminus and the Government Wharf.

5. RECOMMENDATIONS

1. Fecal coliform contamination of the receiving waters in the vicinity of oyster lease 245, Denman Island, is dependent upon extended periods of rain induced runoff originating from the Lone Pine Farm. To improve water quality at Lease 245, it is recommended as a first step, if feasible, that the reservoir feeding stream S6 be protected by ditching from runoff from the barn and pastureland and that the 150 foot section of stream S6 to which cattle have direct access be fenced. If a subsequent survey shows these measures to be inadequate, it is recommended that the shellfish waters influenced by streams S6 and S7 be closed to harvesting during the months of September to November inclusive.

2. The septic tank-absorption field for the home on the north side of creek S4 can be considered a suspect source of contamination during periods of high water table. It is recommended that the Upper Island Health Unit be advised to investigate the efficacy of this system and request correction if the absorption field is found to be unsatisfactory.

6. REFERENCES

1. Sanitation of Shellfish Growing Areas, (1965) National Shellfish Sanitation Program Manual of Operations, Part I, 13.

2. Standard Methods for the Examination of Water and Wastewater, (1971) 13th ed. Amer. Public Health Assoc., New York.

3. Shellfish Growing Water Sanitary Survey of Comox Harbour Area, British Columbia, Report EPS 5-PR-74-13, November 1974, Pollution Abatement Branch, Environmental Protection Service, Environment Canada

ACKNOWLEDGEMENTS

B. Kay, Bacteriologist, and M. Gaertner, Bacteriological Technician, conducted the bacteriological analyses in the Environmental Protection Service mobile laboratory located at Fanny Bay, Vancouver Island. Mr. Kay compiled the bacteriological data.

G. Derksen, Field Technician, D. Low, Engineering Technician, and K. Cooper, Engineering Technician, conducted the sanitary survey and carried out the sampling program.

APPENDIX I

SAMPLE STATION LOCATION DESCRIPTIONS

TABLE 7: MARINE SAMPLE STATION LOCATIONS

Sample Station	Latitude	Longitude	Location
1	49°37'15".ON	124°50'47".OW	Sandy Island
2	49°36'11".ON	124°49'51".OW	Henry Bay - Lot 211
3	49°35'48".ON	124°50'06".OW	Henry Bay - Lot 211
4	49°35'29".ON	124°50'10".OW	Henry Bay - Lot 211
5	49°35'13".ON	124°50'10".OW	Denman Island - Lot 211
6	49°34'39".ON	124°50'18".OW	Denman Island - Lot 307
7	49°33'56".ON	124°50'31".OW	Denman Island - Lot 305
8	49°33'42".ON	124°50'27".OW	Denman Island - Lot 248
9	49°33'32".ON	124°50'29".OW	Denman Island - Lot 232
10	49°33'18".ON	124°50'35".OW	Denman Island - Lot 245
11	49°33'13".ON	124°50'30".OW	Denman Island - Lot 245
12	49°32'46".ON	124°50'10".OW	Denman Island - Lot 349
13	49°32'19".ON	124°49'42".OW	Denman Island - Lot 323
14	49°31'51".ON	124°48'54".OW	Denman Island
15	49°29'45".ON	124°45'17".OW	Denman Island - lot 226
16	49°29'17".ON	124°45'01".OW	Denman Island - Lot 255

TABLE 8: FRESHWATER SAMPLE STATION LOCATIONS.

Sample Stations	Location
S1	Henry Bay. Mouth of unnamed creek draining into vicinity of sample station 3.
S2	Henry Bay. Mouth of unnamed creek draining into vicinity of sample station 4.
S3	Henry Bay. Mouth of unnamed creek draining into vicinity of sample station 5.
S4	Denman Island. Mouth of unnamed creek draining into vicinity of sample station 8.
S5	Denman Island. Mouth of unnamed creek draining into vicinity of sample station 9.
S6	Denman Island. Mouth of unnamed creek draining Lone Pine Farm pasture land. Vicinity of sample station 10.
S7	Denman Island. Mouth of unnamed creek draining Lone Pine Farm pasture land. Vicinity of sample station 11.
S8	Mouth of unnamed creek just south of Denman Island Ferry Wharf.
S9	Mouth of unnamed creek approximately 400' south of Denman Island Ferry Wharf. Located off Telephone Cable Sign.
S10	Mouth of unnamed creek north of Metcalf Bay.

APPENDIX II

BACTERIOLOGICAL RESULTS AND SAMPLING CONDITIONS

TABLE 9: BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 1 Location: Sandy Island

Date (1974)	Sample Time	Tide Conditions		Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml	
		Time	Ht.(Ft.)						Total	Fecal
Apr 17	1400	1400 1955	10.6 6.9	10.5	0.0	E@ 2-5	calm	24.0	6.8	<1.8
Apr 18	0935	0925 1510	7.1 11.2	9.2	0.01	E@ 3-7	choppy	17.0	7.8	<1.8
Apr 22	1250	1120 1820	2.9 13.9	11.1	0.12	NE@ 3-11	ripple	21.5	4.5	<1.8
Apr 23	0915	0500 1200	13.8 2.2	9.0	TR	NW@ 9-13	--	22.7	2.0	<1.8
Apr 24	0940	0530 1240	13.8 1.7	9.0	0.02	NW@ 4-11	ripple	21.2	14	1.8
Apr 25	1015	0600 1325	13.6 1.6	8.5	0.71	SE@ 6-14	ripple	21.5	33	4.5

TABLE 9: BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 2 Location: Henry Bay - Lot 211

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht.(Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Apr 17	1410	1400 1955	10.6 6.9	11.0	0.0	E@ 2-5	calm	23.0	<1.8	<1.8
Apr 18	0940	0925 1510	7.1 11.2	9.0	0.01	E@ 3-7	calm	18.5	<1.8	<1.8
Apr 22	1300	1120 1820	2.9 13.9	12.0	0.12	NE@ 3-11	ripple	22.0	<1.8	<1.8
Apr 23	0925	0500 1200	13.8 2.2	9.0	TR	NW@ 9-13	--	22.8	2.0	2.0
Apr 24	0945	0530 1240	13.8 1.7	8.2	0.02	NW@ 4-11	ripple	22.0	2.0	<1.8
Apr 25	1025	0600 1325	13.6 1.6	9.5	0.71	SE@ 6-14	ripple	26.0	17	2.0

TABLE 9: BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 3 Location: Henry Bay - Lot 211

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Apr 25	1030	0600 1325	13.6 1.6	9.5	0.71	SE@ 6-14	ripple	26.5	11	<1.8
Apr 26	0915	0645 1410	13.1 1.8	9.0	0.24	E@ 3-6	calm	25.5	11	<1.8
Apr 29	1525	1100 1800	11.0 4.2	11.5	TR	E@ 3-9	calm	24.5	<1.8	<1.8
Apr 30	0830	0805 1245	8.3 10.7	12.2	0.01	NE@ 9-16	ripple	22.2	<1.8	<1.8
May 1	1245	0900 1430	6.9 10.9	--	0.02	SE@ 12-16	--	--	2.0	2.0
May 2	1015	0940 1555	5.5 11.7	7.8	TR	SE@ 7-12	ripple	21.5	2.0	2.0

TABLE 9: BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 4 Location: Denman Island - Lot 211

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Apr 25	1040	0600 1325	13.6 1.6	9.0	0.71	SE@ 6-14	ripple	25.0	7.8	7.8
Apr 26	0925	0645 1410	13.1 1.8	9.0	0.24	E@ 3-6	calm	25.5	11	<1.8
Apr 29	1530	1100 1800	11.0 4.2	12.5	TR	E@ 3-9	calm	25.0	2.0	<1.8
Apr 30	0840	0805 1245	8.3 10.7	12.0	0.01	NE@ 9-16	--	23.0	<1.8	<1.8
May 2	1015	0940 1555	5.5 11.7	7.5	TR	SE@ 7-12	ripple	20.0	4.5	4.5
May 3	0905	0335 1025	14.0 4.2	8.8	0.0	SE@ 6-10	ripple	22.0	2.0	<1.8

TABLE 9: BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 5 Location: Denman Island - Lot 211

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Apr 17	1430	1400 1955	10.6 6.9	11.5	0.0	E@ 2-5	--	21.0	<1.8	<1.8
Apr 18	0945	0925 1510	7.1 11.2	9.8	0.01	E@ 3-7	ripple	17.5	2.0	<1.8
Apr 22	1310	1120 1820	2.9 13.9	9.1	0.12	NE@ 3-11	--	24.9	2.0	2.0
Apr 23	0930	0500 1200	13.8 2.2	9.0	TR	NW@ 9-13	--	22.8	<1.8	<1.8
Apr 24	0950	0530 1240	13.8 1.7	8.9	0.02	NW@ 4-11	calm	22.5	<1.8	<1.8
Apr 25	1050	0600 1325	13.6 1.6	8.8	0.71	SE@ 6-14	ripple	25.0	4.0	1.8

TABLE 9 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 6 Location: Denman Island - Lot 307

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Apr 25	1100	0600 1325	13.6 1.6	8.5	0.71	SE@ 6-14	ripple	27.0	1.8	1.8
Apr 26	0930	0645 1410	13.1 1.8	9.0	0.24	E@ 3-6	calm	25.5	17	2.0
Apr 29	1540	1100 1800	11.0 4.2	13.8	TR	E@ 3-9	calm	19.0	4.0	<1.8
Apr 30	0850	0805 1245	8.3 10.7	11.5	0.01	NE@ 9-16	--	22.0	<1.8	<1.8
May 1	1225	0900 1430	6.9 10.9	--	0.02	SE@ 12-16	--	--	2.0	2.0
May 2	1045	0940 1555	5.5 11.7	7.8	TR	SE@ 7-12	ripple	20.5	4.0	<1.8

TABLE 9 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 7 Location: Denman Island - Lot 305

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Apr 17	1445	1400 1955	10.6 6.9	11.0	0.0	E@ 2-5	--	22.0	<1.8	<1.8
Apr 18	0955	0925 1510	7.1 11.2	10.0	0.01	E@ 3-7	ripple	19.8	2.0	2.0
Apr 22	1315	1120 1820	2.9 13.9	9.0	0.12	NE@ 3-11	ripple	24.9	2.0	<1.8
Apr 23	0935	0500 1200	13.8 2.2	9.0	TR	NW@ 9-13	--	21.5	2.0	<1.8
Apr 24	1000	0530 1240	13.8 1.7	9.8	0.02	NW@ 4-11	calm	23.8	2.0	<1.8
Apr 25	1105	0600 1325	13.6 1.6	9.0	0.71	SE@ 6-14	ripple	25.5	4.5	<1.8

TABLE 9: BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 8 Location: Denman Island - Lot 248

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Apr 17	1450	1400 1955	10.6 6.9	11.0	0.0	E@ 2-5	--	21.0	<1.8	<1.8
Apr 18	1000	0925 1510	7.1 11.2	10.0	0.01	E@ 3-7	ripple	19.0	<1.8	<1.8
Apr 22	1320	1120 1820	2.9 13.9	9.1	0.12	NE@ 3-11	ripple	24.6	<1.8	<1.8
Apr 23	0940	0500 1200	13.8 2.2	9.0	TR	NW@ 9-13	--	22.0	4.5	<1.8
Apr 24	1005	0530 1240	13.8 1.7	10.0	0.02	NW@ 4-11	calm	24.0	<1.8	<1.8
Apr 25	1110	0600 1325	13.6 1.6	9.2	0.71	SE@ 6-14	ripple	25.5	<1.8	<1.8
Apr 26	0940	0645 1410	13.1 1.8	8.0	0.24	E@ 3-6	calm	20.5	49	2.0
Apr 29	1550	1100 1800	11.0 4.2	12.5	TR	E@ 3-9	ripple	24.0	<1.8	<1.8
Apr 30	0900	0805 1245	8.3 10.7	11.5	0.01	NE@ 9-16	--	23.0	2.0	2.0
May 1	1340	0900 1430	6.9 10.9	--	0.02	SE@ 12-16	--	--	2.0	<1.8

TABLE 9 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 9 Location: Denman Island - Lot 232

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Apr 17	1455	1400 1955	10.6 6.9	11.0	0.0	E@ 2-5	--	20.0	2.0	<1.8
Apr 18	1005	0925 1510	7.1 11.2	10.0	0.01	E@ 3-7	ripple	18.5	<1.8	<1.8
Apr 22	1330	1120 1820	2.9 13.9	8.0	0.12	NE@ 3-11	ripple	27.0	4.5	4.5
Apr 23	0945	0500 1200	13.8 2.2	8.8	TR	NW@ 9-13	--	22.2	<1.8	<1.8
Apr 24	1005	0530 1240	13.8 1.7	10.0	0.02	NW@ 4-11	calm	23.8	2.0	2.0
Apr 25	1115	0600 1325	13.6 1.6	9.2	0.71	SE@ 6-14	ripple	27.0	<1.8	<1.8
Apr 26	0945	0645 1410	13.1 1.8	8.0	0.24	E@ 3-6	calm	19.5	130	7.8
Apr 29	1605	1100 1800	11.0 4.2	11.8	TR	E@ 3-9	ripple	25.0	<1.8	<1.8
Apr 30	0910	0805 1245	8.3 10.7	11.2	0.01	NE@ 9-16	--	23.5	<1.8	<1.8
May 1	1400	0900 1430	6.9 10.9	--	0.02	SE@ 12-16	--	--	<1.8	<1.8

TABLE 9 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 10 Location: Denman Island - Lot 245

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Apr 17	1500	1400 1955	10.6 6.9	10.0	0.0	E@ 2-5	--	25.0	2.0	2.0
Apr 18	1005	0925 1510	7.1 11.2	10.0	0.01	E@ 3-7	ripple	20.0	<1.8	<1.8
Apr 22	1335	1120 1820	2.9 13.9	8.5	0.12	NE@ 3-11	ripple	26.1	<1.8	<1.8
Apr 23	0950	0500 1200	13.8 2.2	9.0	TR	NW@ 9-13	--	25.0	2.0	<1.8
Apr 24	1010	0530 1240	13.8 1.7	9.0	0.02	NW@ 4-11	calm	26.0	<1.8	<1.8
Apr 25	1120	0600 1325	13.6 1.6	9.0	0.71	SE@ 6-14	ripple	25.0	4.5	4.5
Apr 26	1005	0645 1410	13.1 1.8	8.0	0.24	E@ 3-6	calm	26.5	7.8	4.5
Apr 29	1635	1100 1800	11.0 4.2	12.5	TR	E@ 3-9	ripple	19.0	2.0	<1.8
Apr 30	0915	0805 1245	8.3 10.7	11.2	0.01	NE@ 9-16	--	23.0	<1.8	<1.8
May 1	1420	0900 1430	6.9 10.9	--	0.02	SE@ 12-16	--	--	<1.8	<1.8

TABLE 9 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 11 Location: Denman Island - Lot 245

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Apr 17	1500	1400 1955	10.6 6.9	10.5	0.0	E@ 2-5	--	24.5	2.0	<1.8
Apr 18	1010	0925 1510	7.1 11.2	10.2	0.01	E@ 3-7	ripple	19.5	<1.8	<1.8
Apr 22	1340	1120 1820	2.9 13.9	8.9	0.12	NE@ 3-11	ripple	26.3	2.0	<1.8
Apr 23	0955	0500 1200	13.8 2.2	9.0	TR	NW@ 9-13	--	25.0	<1.8	<1.8
Apr 24	1010	0530 1240	13.8 1.7	9.8	0.02	NW@ 4-11	calm	25.5	<1.8	<1.8
Apr 25	1140	0600 1325	13.6 1.6	9.0	0.71	SE@ 6-14	ripple	25.0	<1.8	<1.8
Apr 26	1010	0645 1410	13.1 1.8	8.8	0.24	E@ 3-6	calm	26.0	22	4.5
Apr 29	1640	1100 1800	11.0 4.2	12.5	TR	E@ 3-9	ripple	23.0	<1.8	<1.8
Apr 30	0925	0805 1245	8.3 10.7	11.0	0.01	NE@ 9-16	--	23.0	<1.8	<1.8
May 1	1420	0900 1430	6.9 10.9	--	0.02	SE@ 12-16	--	--	4.5	4.5

TABLE 9 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 12 Location: Denman Island - Lot 349

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Apr 17	1510	1400 1955	10.6 6.9	11.0	0.0	E@ 2-5	--	24.0	4.5	<1.8
Apr 18	1010	0925 1510	7.1 11.2	10.2	0.01	E@ 3-7	ripple	19.0	<1.8	<1.8
Apr 22	1345	1120 1820	2.9 13.9	8.9	0.12	NE@ 3-11	ripple	26.1	<1.8	<1.8
Apr 23	1000	0500 1200	13.8 2.2	9.0	TR	NW@ 9-13	--	25.0	<1.8	<1.8
Apr 24	1010	0530 1240	13.8 1.7	9.8	0.02	NW@ 4-11	calm	25.5	2.0	2.0
Apr 25	1140	0600 1325	13.6 1.6	9.0	0.71	SE@ 6-41	ripple	26.0	<1.8	<1.8

TABLE 9: BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 13 Location: Denman Island - Lot 323

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Apr 18	1015	0925 1510	7.1 11.2	10.0	0.01	E@ 3-7	ripple	17.8	2.0	2.0
Apr 22	1350	1120 1820	2.9 13.9	8.9	0.12	NE@ 3-11	ripple	26.1	2.0	<1.8
Apr 23	1005	0500 1200	13.8 2.2	9.5	TR	NW@ 9-13	--	23.9	2.0	<1.8
Apr 24	1015	0530 1240	13.8 1.7	10.0	0.02	NW@ 4-11	calm	24.2	<1.8	<1.8
Apr 25	1145	0600 1325	13.6 1.6	9.0	0.71	SE@ 6-14	ripple	27.0	2.0	2.0
Apr 26	1015	0645 1410	13.1 1.8	9.0	0.24	E@ 3-6	calm	24.5	33	4.5

TABLE 9: BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 14 Location: Denman Island

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Feb 12	1405	0850 1600	14.8 4.9	6.5	0.32	NW@ 7-10	choppy	27.5	<1.8	<1.8
Feb 13	1025	0925 1655	14.1 4.8	6.5	0.82	SE@ 28-33	choppy	27.0	110	4.5
Feb 14	1015	0955 1755	13.4 4.8	6.5	0.27	E@ 3-14	calm	29.0	23	<1.8
Feb 15	0940	0640 1040	11.8 12.7	6.6	1.01	SE@ 8-18	choppy	27.5	17	<1.8
Feb 18	1455	1420 2130	12.1 4.5	6.5	0.32	SE@ 9-15	choppy	27.0	7.8	2.0
Feb 19	1000	0510 1040	14.2 10.4	3.5	0.0	N@ 0-5	calm	27.8	79	33
Feb 21	1015	0550 1130	14.3 9.2	6.2	0.58	NE@ 2-8	choppy	25.5	2.0	2.0
Feb 22	0920	0610 1200	14.5 8.5	4.8	TR	SE@ 3-18	ripple	27.0	11	<1.8
Feb 26	1055	0735 1425	14.6 5.3	6.0	TR	N@ 2-7	ripple	27.0	22	7.8
Feb 28	1020	0830 1600	14.1 4.2	6.8	0.62	SE@ 21-27	choppy	28.5	7.8	2.0
Mar 1	0925	0905 1705	13.8 3.9	6.5	0.03	SW@ 8-17	ripple	28.5	1.8	<1.8

TABLE 9 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 15 Location: Denman Island - Lot 226

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht.(Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Feb 12	1420	0850 1600	14.8 4.9	6.5	0.32	NW@ 7-10	choppy	28.0	<1.8	<1.8
Feb 13	1045	0925 1655	14.1 4.8	6.5	0.82	SE@ 28-33	choppy	28.0	6.8	1.8
Feb 14	1020	0955 1755	13.4 4.8	6.2	0.27	E@ 3-14	calm	28.0	4.5	2.0
Feb 15	0955	0640 1040	11.8 12.7	6.5	1.01	SE@ 8-18	ripple	28.5	4.0	2.0
Feb 18	1510	1420 2130	12.1 4.5	7.0	0.32	SE@ 9-15	ripple	28.0	2.0	<1.8
Feb 19	1010	0510 1040	14.2 10.4	4.2	0.0	N@ 0-5	calm	28.5	170	21
Feb 21	1005	0550 1130	14.3 9.2	6.8	0.58	NE@ 2-8	ripple	28.5	2.0	<1.8
Feb 22	0910	0610 1200	14.5 8.5	5.2	TR	SE@ 3-18	calm	27.0	14	<1.8
Feb 26	1105	0735 1425	14.6 5.3	6.0	TR	N@ 2-7	ripple	27.0	14	<1.8
Feb 28	1000	0830 1600	14.1 4.2	6.5	0.62	SE@ 21-27	choppy	28.5	2.0	2.0
Mar 1	0910	0905 1705	13.8 3.9	6.5	0.03	SW@ 8-17	choppy	28.5	<1.8	<1.8

TABLE 9 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR MARINE SAMPLES.

Sample Station: 16 Location: Denman Island - Lot 255

Date (1974)	Sample Time	Tide Conditions Time	Tide Conditions Ht. (Ft.)	Water Temp. (°C)	Total Precip. (in.)	Wind (mph)	Local Sea Cond.	Salinity (ppt)	Coliform MPN/ 100 ml Total	Coliform MPN/ 100 ml Fecal
Feb 12	1425	0850 1600	14.8 4.9	6.5	0.32	NW@ 7-10	choppy	28.0	<1.8	<1.8
Feb 13	1050	0925 1655	14.1 4.8	6.0	0.82	SE@ 28-33	choppy	28.0	6.8	1.8
Feb 14	1025	0955 1755	13.4 4.8	6.5	0.27	E@ 3-14	calm	28.5	2.0	<1.8
Feb 15	1000	0640 1040	11.8 12.7	6.8	1.01	SE@ 8-18	choppy	28.0	13	<1.8
Feb 18	1515	1420 2130	12.1 4.5	7.0	0.32	SE@ 9-15	choppy	28.0	4.5	2.0
Feb 19	1015	0510 1040	14.2 10.4	4.8	0.0	N@ 0-5	calm	28.5	23	2.0
Feb 21	1000	0550 1130	14.3 9.2	6.2	0.58	NE@2-8	ripple	27.5	4.0	4.0
Feb 22	0905	0610 1200	14.5 8.5	5.8	TR	SE@ 3-18	calm	27.0	7.8	<1.8

TABLE 10 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES.

Sample Station: S1 Location: Denman Island

Date (1974)	Time of Collection	Total Precip. (in.)	Coliform MPN/100 mℓ	
			Total	Fecal
Apr. 25	1030	0.71	78	45
Apr. 26	0915	0.24	39	13
Apr. 29	1525	TR	13	7.8
Apr. 30	0830	0.01	2.0	2.0

TABLE 10 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES.

Sample Station: S2 Location: Denman Island

Date (1974)	Time of Collection	Total Precip. (in.)	Coliform MPN/100 mℓ	
			Total	Fecal
Apr. 25	1045	0.71	20	<18
Apr. 26	0925	0.24	220	7.8
Apr. 29	1530	TR	2.0	2.0
Apr. 30	0845	0.01	1.8	<1.8

3.3

TABLE 10 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES.

Sample Station: S3 Location: Denman Island

Date (1974)	Time of Collection	Total Precip. (in.)	Coliform MPN/100 mℓ	
			Total	Fecal
May 2	1030	TR	11	11
May 6	1530	0.11	240	4.5
May 8	1050	TR	33	33

TABLE 10 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES.

Sample Station: S4 Location: Denman Island

Date (1974)	Time of Collection	Total Precip. (in.)	Coliform MPN/100 mℓ	
			Total	Fecal
Apr. 26	0940	0.24	920	6.8
Apr. 29	1600	TR	460	< 20
Apr. 30	0900	0.01	33	2.0
May 1	1340	0.02	120	13

TABLE 10 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES.

Sample Station: S5 Location: Denman Island

Date (1974)	Time of Collection	Total Precip. (in.)	Coliform MPN/100 mℓ	
			Total	Fecal
Apr. 26	1000	0.24	1600	350
Apr. 29	1630	TR	70	23
Apr. 30	0910	0.01	23	7.8
May 1	1400	0.02	17	13
May 2	1040	TR	22	14

TABLE 10 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES.

Sample Station: S6 Location: Denman Island

Date (1974)	Time of Collection	Total Precip. (in.)	Coliform MPN/100 mℓ	
			Total	Fecal
Apr. 25	1140	0.71	110	110
Apr. 26	1010	0.24	1600	170
Apr. 29	1635	TR	4.5	4.5
Apr. 30	0915	0.01	4.5	4.5

TABLE 10 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES.

Sample Station: S7 Location: Denman Island

Date (1974)	Time of Collection	Total Precip. (in.)	Coliform MPN/100 mℓ	
			Total	Fecal
Apr. 25	1140	0.71	34	34
Apr. 29	1640	TR	4.5	4.5
Apr. 30	0925	0.01	4.5	4.5
May 1	1420	0.02	4.5	4.5

TABLE 10 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES.

Sample Station: S8 Location: Denman Island

Date (1974)	Time of Collection	Total Precip. (in.)	Coliform MPN/100 mℓ	
			Total	Fecal
Feb. 21	1020	0.58	1600	29
Feb. 22	0925	TR	3500	110
Feb. 28	1024	0.62	5400	1300
March 1	0930	0.03	9200	700

TABLE 10 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES.

Sample Station: S9 Location: Denman Island

Date (1974)	Time of Collection	Total Precip. (in.)	Coliform MPN/100 mℓ	
			Total	Fecal
Feb. 21	1020	0.58	350	240
Feb. 22	0925	TR	79	79
Feb. 26	1100	TR	1600	240
Feb. 28	1025	0.62	350	110
March 1	0930	0.03	220	220

TABLE 10 : BACTERIOLOGICAL ANALYSES RESULTS AND SAMPLING CONDITIONS FOR FRESHWATER SAMPLES.

Sample Station: S10 Location: Denman Island

Date (1974)	Time of Collection	Total Precip. (in.)	Coliform MPN/100 mℓ	
			Total	Fecal
Feb. 26	1130	TR	1600	4.5
Feb. 28	1005	0.62	110	< 1.8
March 1	0915	0.03	2.0	2.0

TABLE 11: SUMMARY OF FECAL COLIFORM MPN DATA FOR PROPOSED SHELLFISH GROWING WATER STANDARDS.*

Sample Station	Number of Samples	MPN Range	Median MPN per 100 mℓ	% Exceeding 43 MPN/100 mℓ (2)	% Exceeding 76 MPN/100 mℓ (1)
1	6	< 1.8 - 4.5	< 1.8	0.0	0.0
2	6	< 1.8 - 2.0	< 1.8	0.0	0.0
3	6	< 1.8 - 2.0	< 1.8	0.0	0.0
4	6	< 1.8 - 7.8	< 1.8	0.0	0.0
5	6	< 1.8 - 2.0	< 1.8	0.0	0.0
6	6	< 1.8 - 2.0	1.8	0.0	0.0
7	6	< 1.8 - 2.0	< 1.8	0.0	0.0
8	10	< 1.8 - 2.0	< 1.8	0.0	0.0
9	10	< 1.8 - 7.8	< 1.8	0.0	0.0
10	10	< 1.8 - 4.5	< 1.8	0.0	0.0
11	10	< 1.8 - 4.5	< 1.8	0.0	0.0
12	6	< 1.8 - 2.0	< 1.8	0.0	0.0
13	6	< 1.8 - 4.5	∿ 1.9	0.0	0.0
14	11	< 1.8 - 33	2.0	0.0	0.0
15	11	< 1.8 - 21	< 1.8	0.0	0.0
16	8	< 1.8 - 4.0	1.8	0.0	0.0

* U.S. Food and Drug Administration proposed standards per 100 mℓ.

(1) Proposed at Microbiology Task Force Meeting June, 1973 median MPN of 23, 90 percentile of 76.

(2) Proposed at 8th National Shellfish Sanitation Workshop median MPN of 14, 90 percentile of 43.