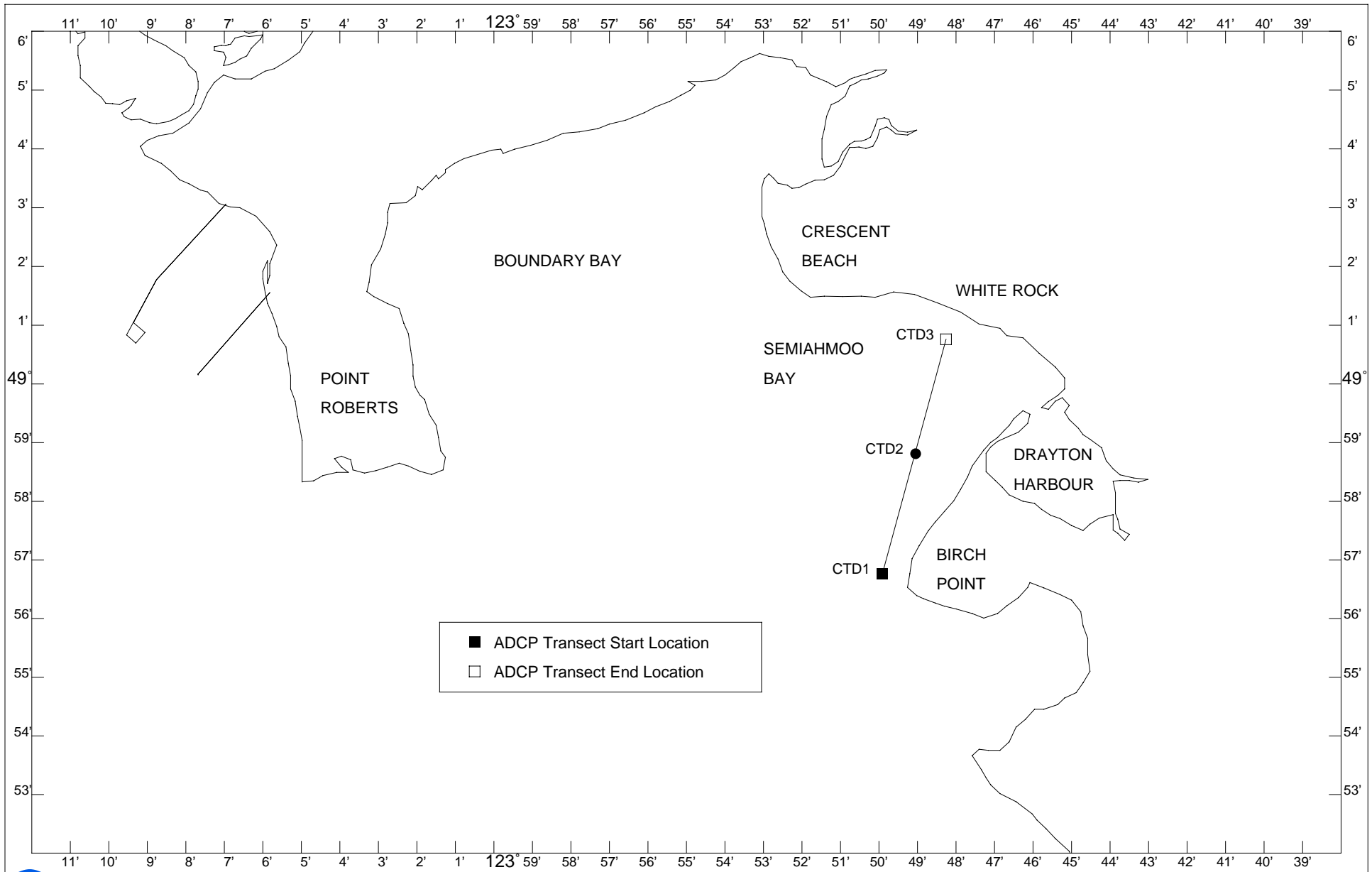


FIGURES

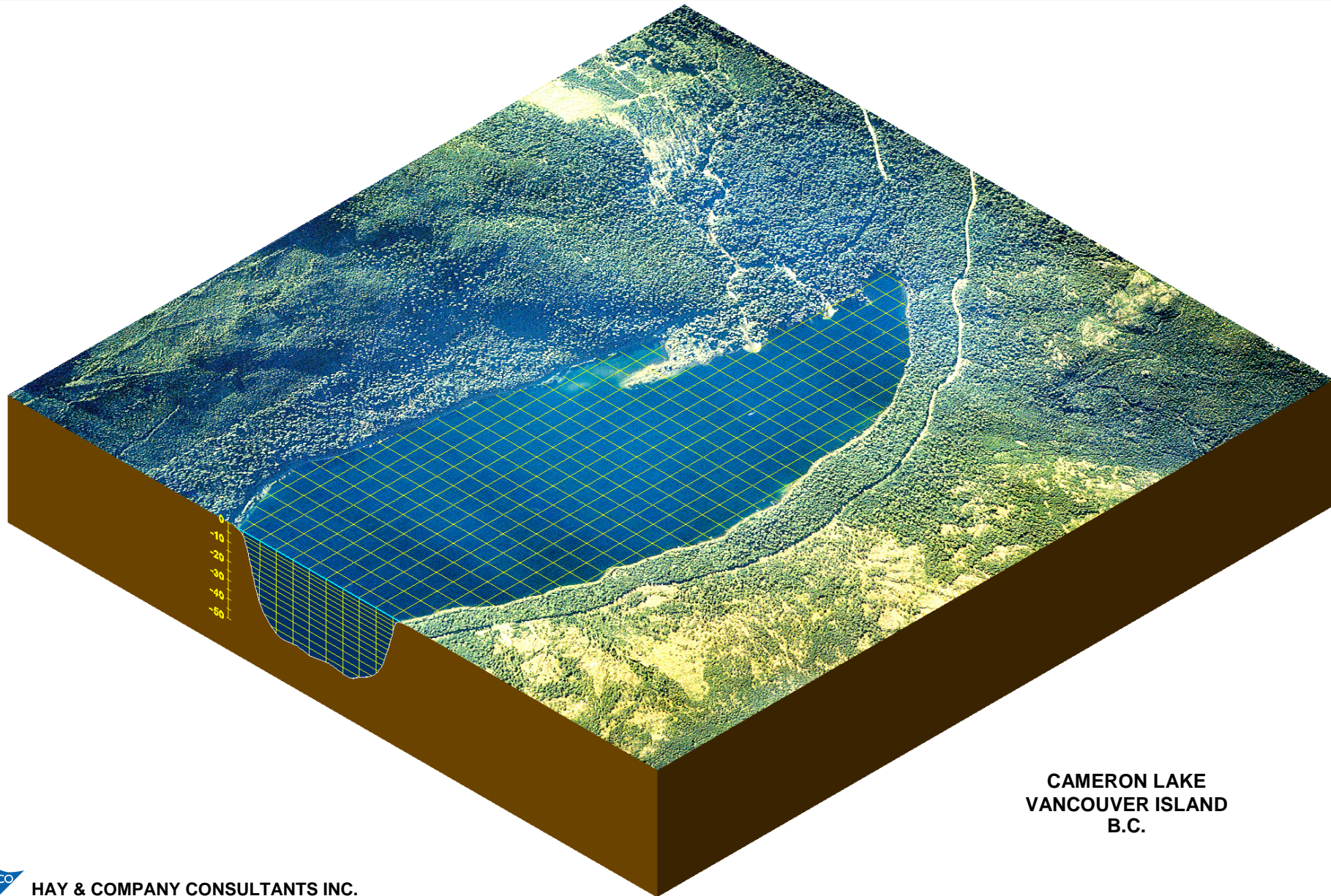


 HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
**SEMIAHMOO BAY
 CIRCULATION STUDY**

**FIELD STUDY LOCATION AND
 ADCP/CTD DATA COLLECTION SITES**

**FIG.
 2.1**



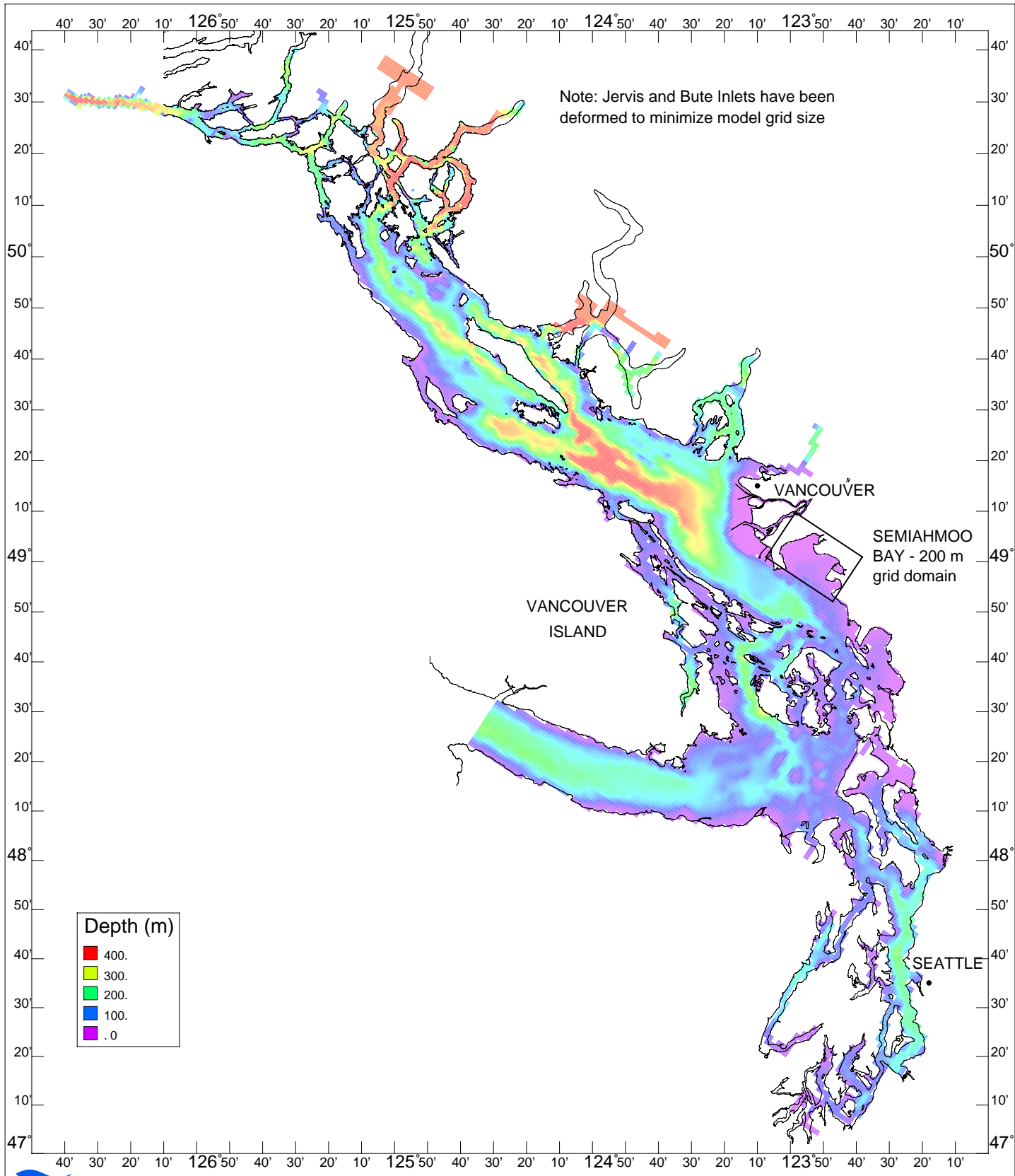
CAMERON LAKE
VANCOUVER ISLAND
B.C.

 HAY & COMPANY CONSULTANTS INC.

ENVIROMENT CANADA
SEMIAHMOO BAY
CIRCULATION STUDY

H3D COMPUTATIONAL GRID
EXAMPLE GRID LAYOUT

FIG.
2.2

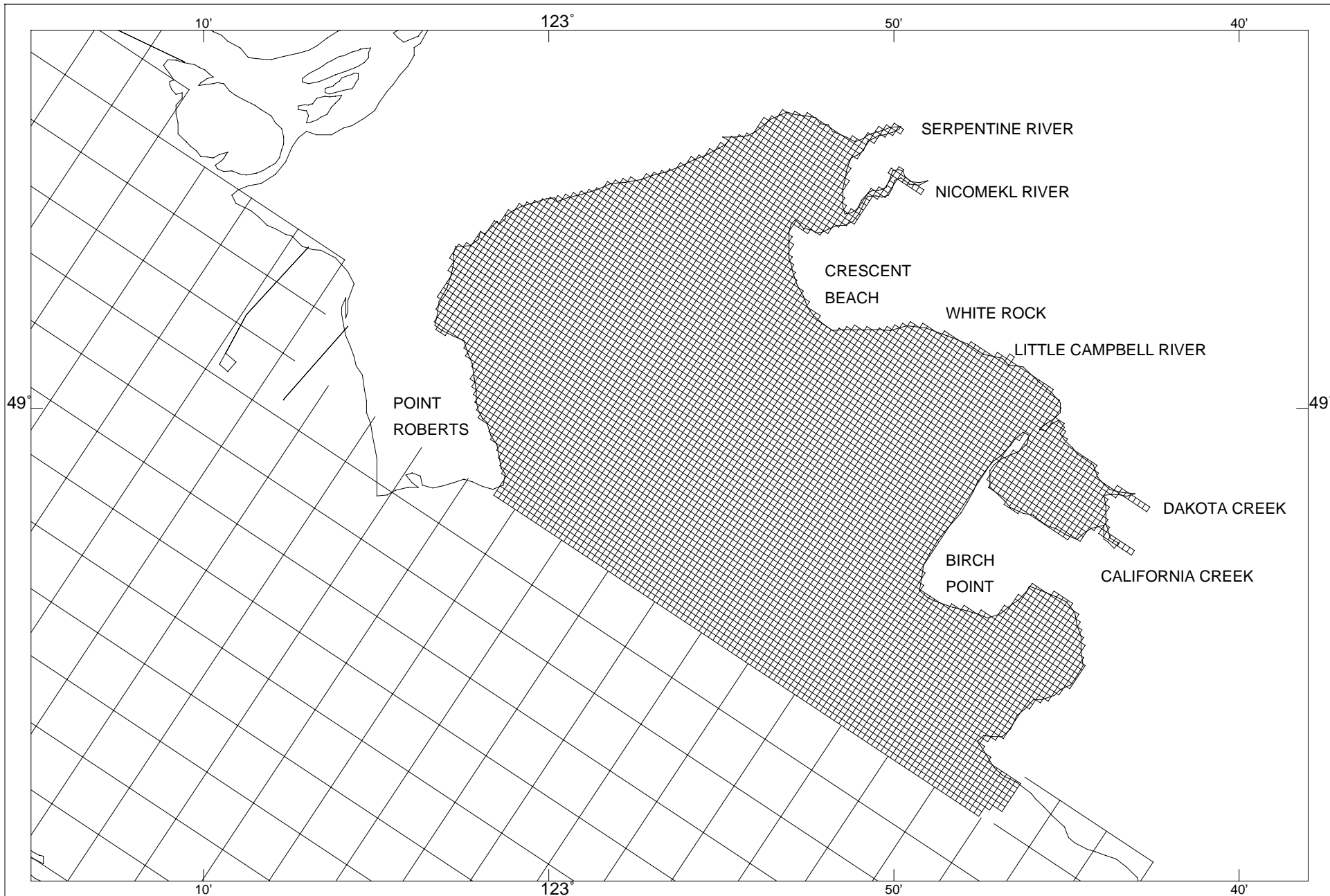


HAYCO
HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
**SEMAHMOO BAY
CIRCULATION STUDY**

**H3D MODEL - STRAIT OF
GEORGIA GRID BATHYMETRY**

**FIG.
2.3**

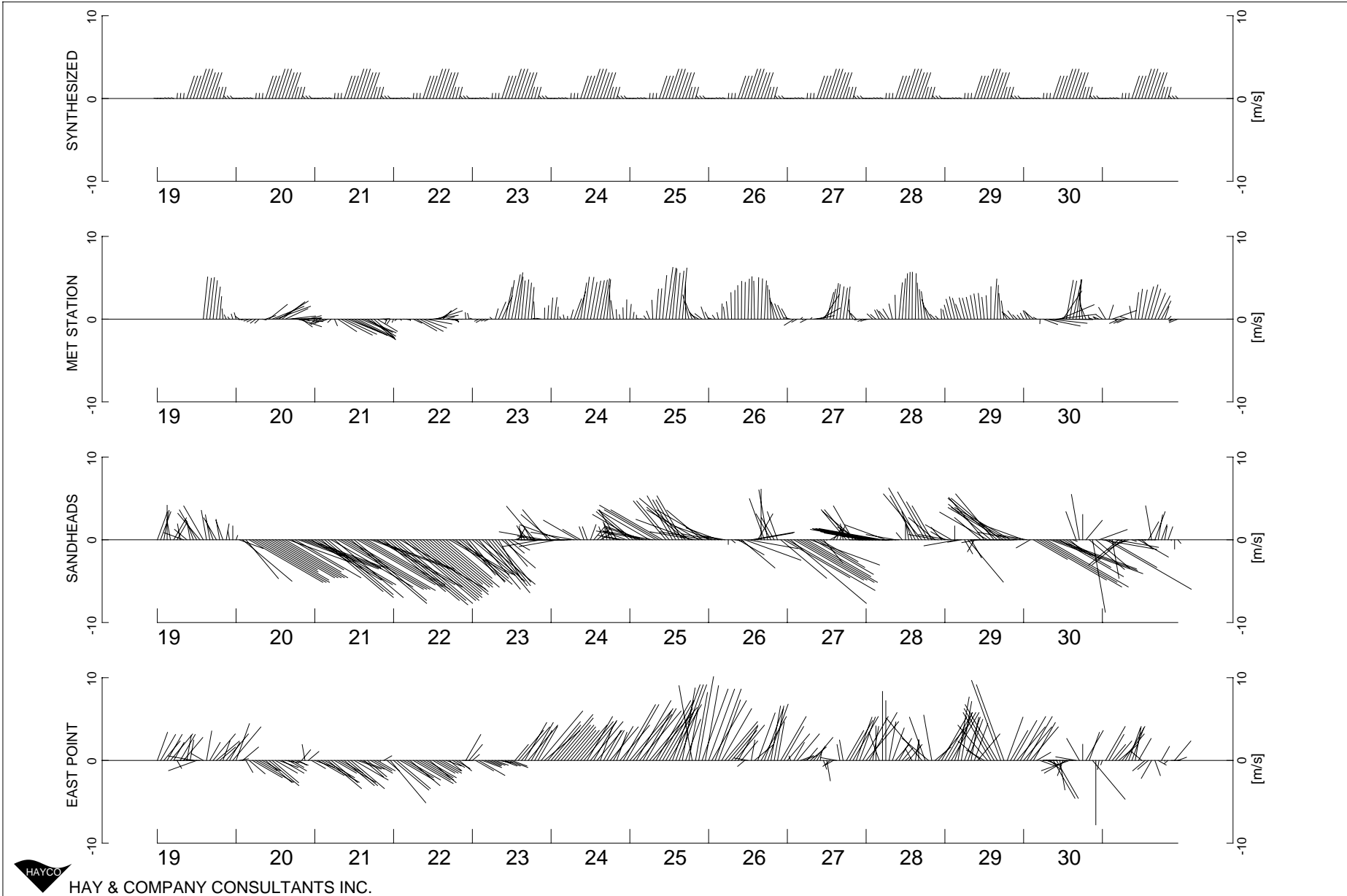



HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
**SEMAIHMUO BAY
 CIRCULATION STUDY**

**H3D MODEL
 NESTED GRID**

**FIG.
 2.4**



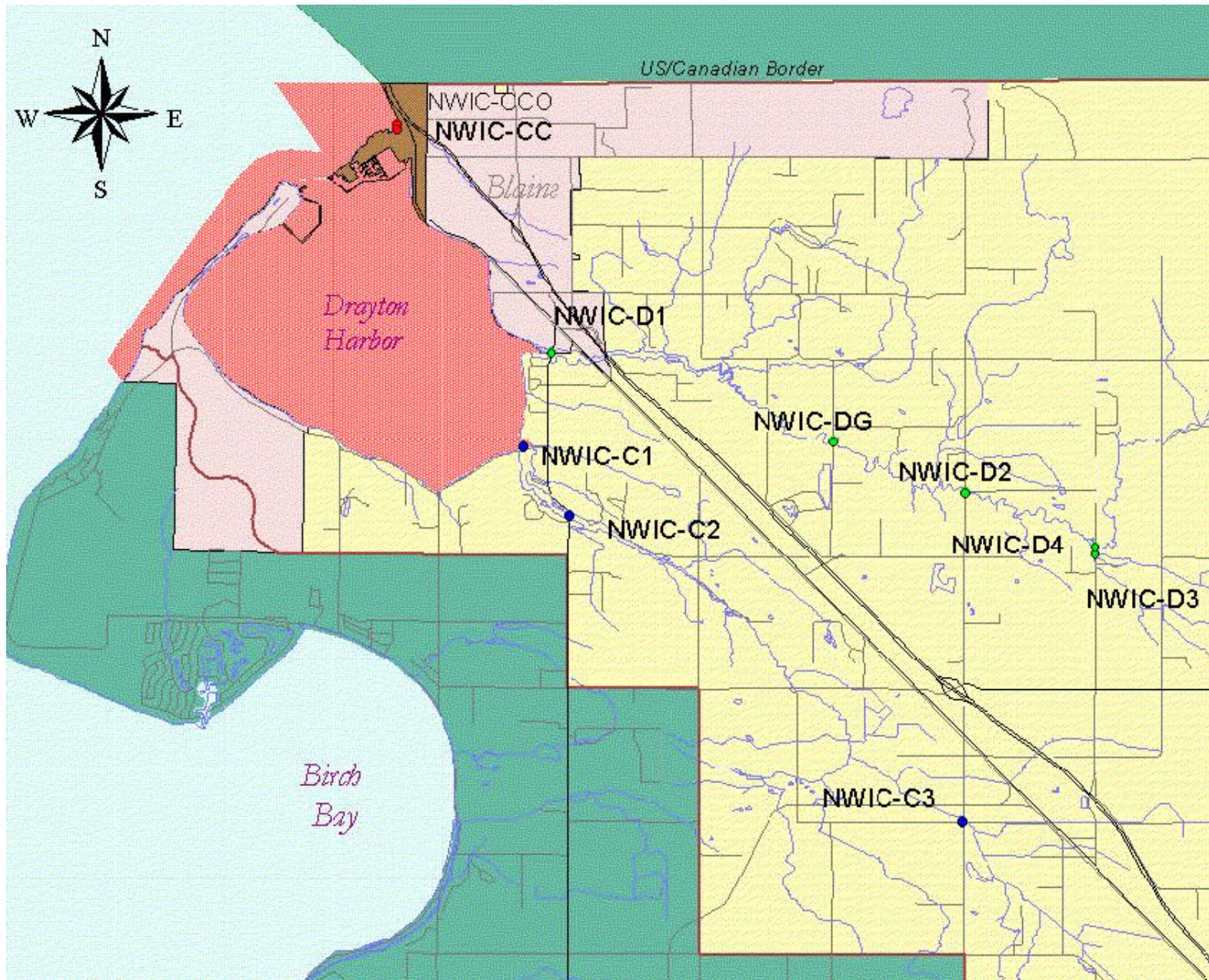
HAY & COMPANY CONSULTANTS INC.

ENVI-003

**SEMAIHMUO BAY
CIRCULATION STUDY**

**JULY 2001 SYNTHESIZED WIND AND JULY 2002 WINDS
AT MET STATION, SANDHEADS & EAST POINT**

FIG.
2.5

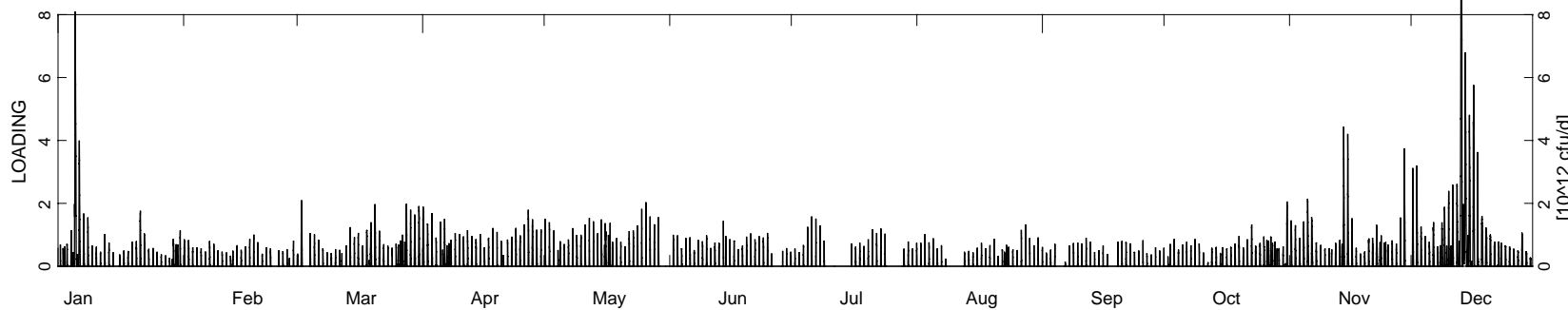
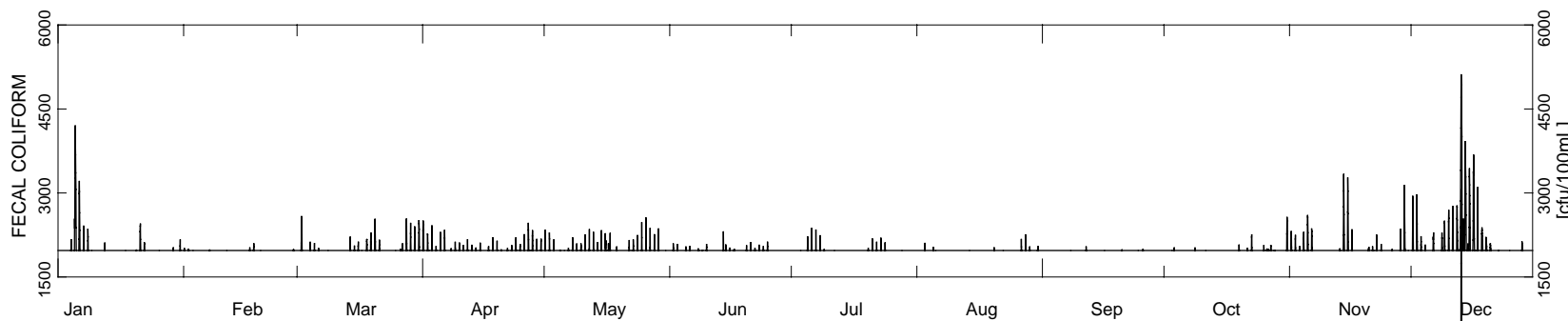
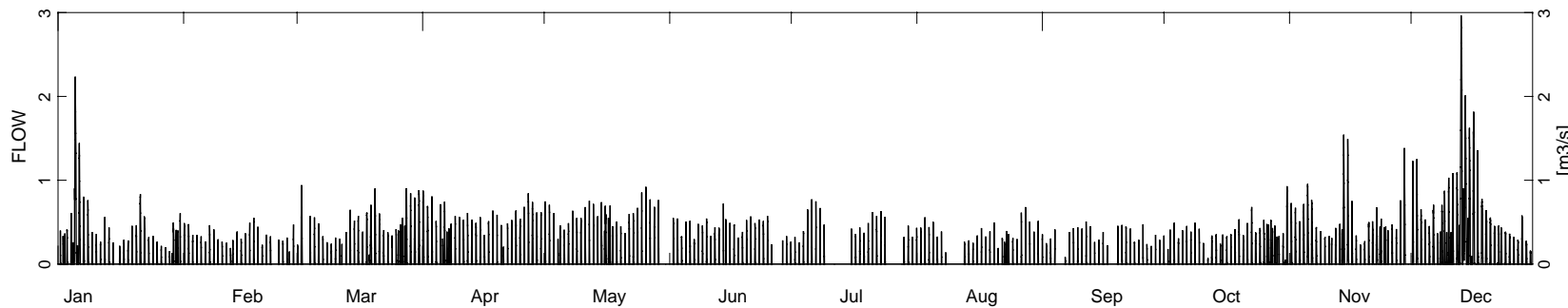


 HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
**SEMAHMOO BAY
 CIRCULATION STUDY**

**FECAL COLIFORM SAMPLING LOCATIONS
 ON DAKOTA AND CALIFORNIA CREEKS**

FIG.
 2.6

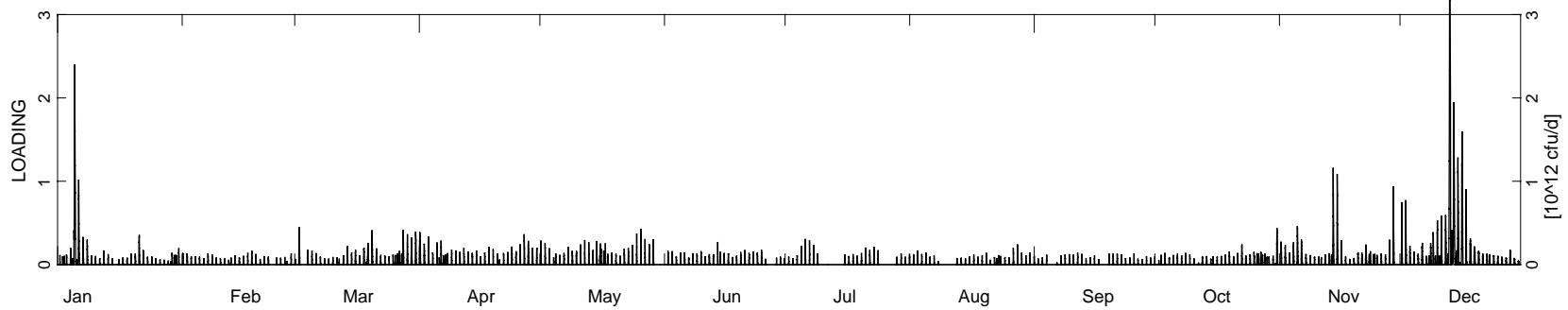
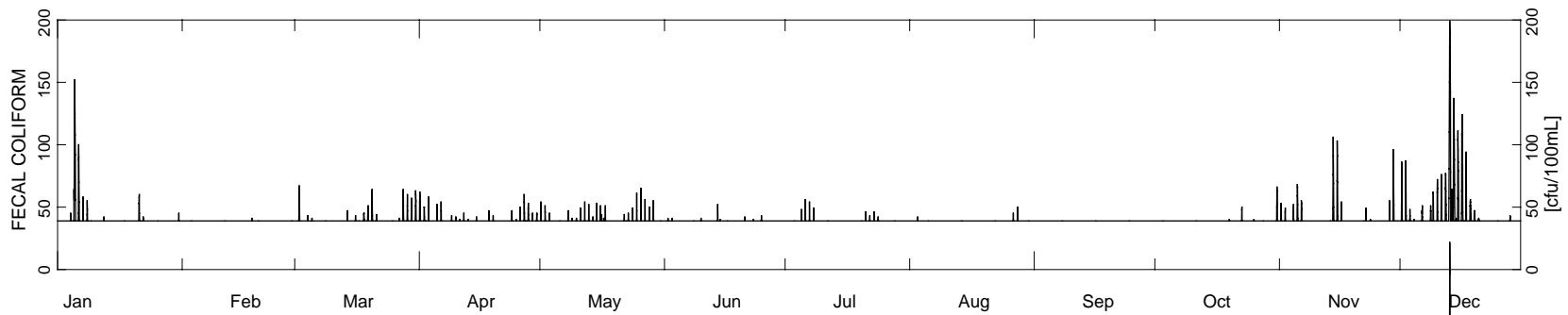
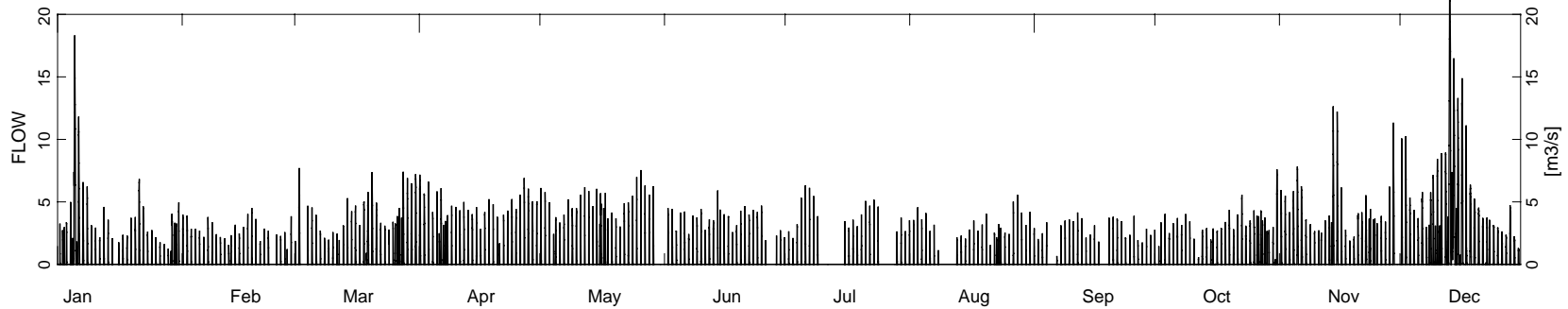


HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
SEMAIHMUO BAY
CIRCULATION STUDY

SERPENTINE RIVER 2001
MODEL INPUTS

FIG.
 2.7

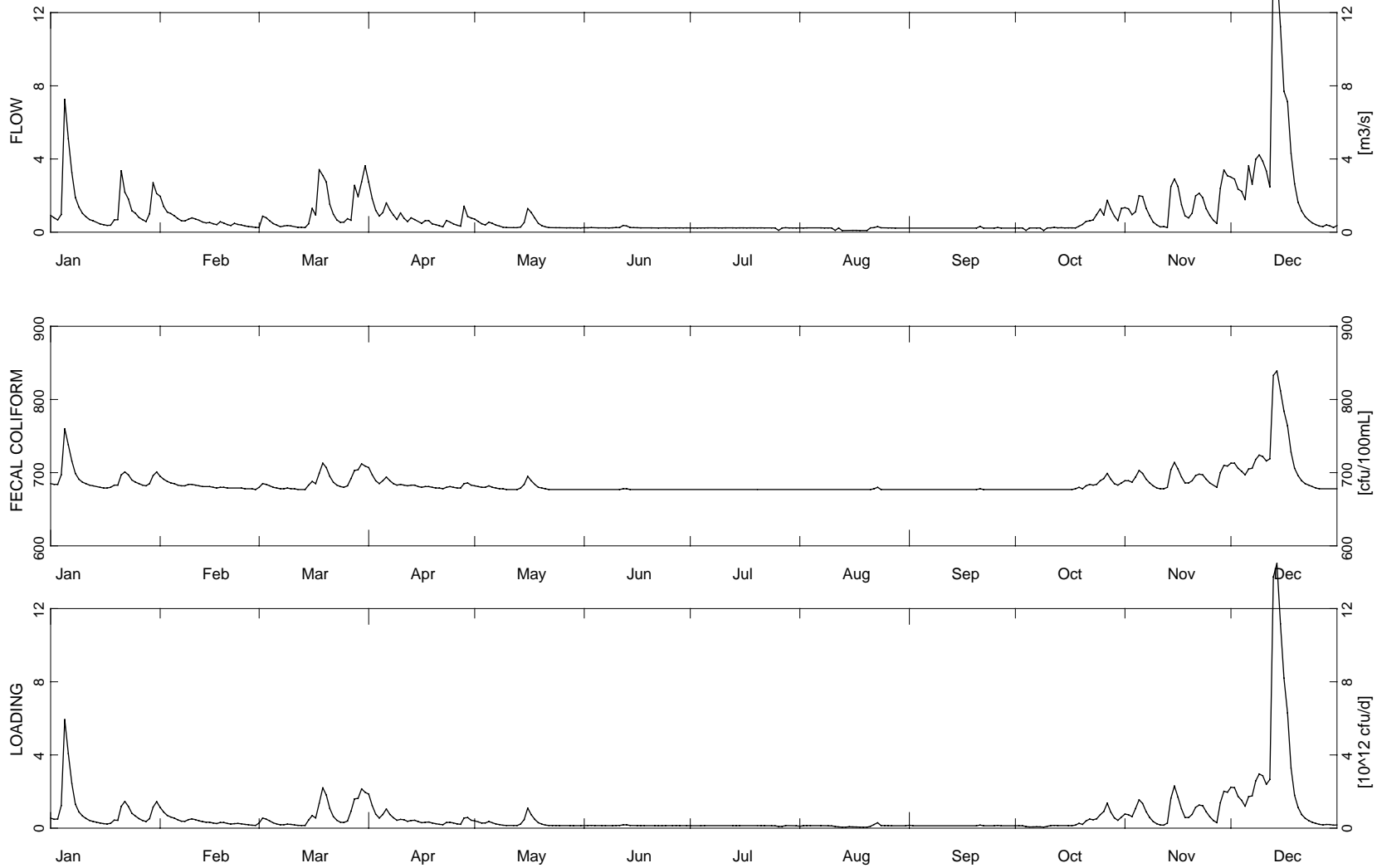


HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
SEMAIHMUO BAY
CIRCULATION STUDY

NICOMEKL RIVER 2001
MODEL INPUTS

FIG.
 2.8

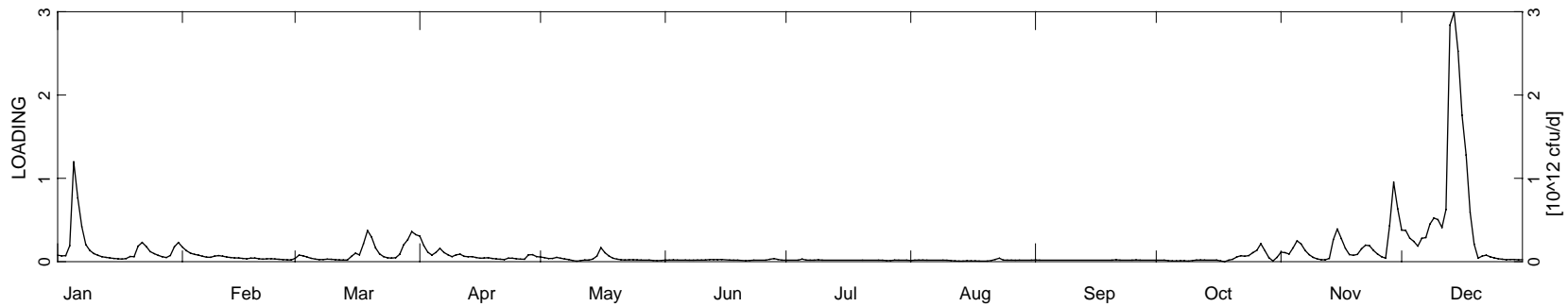
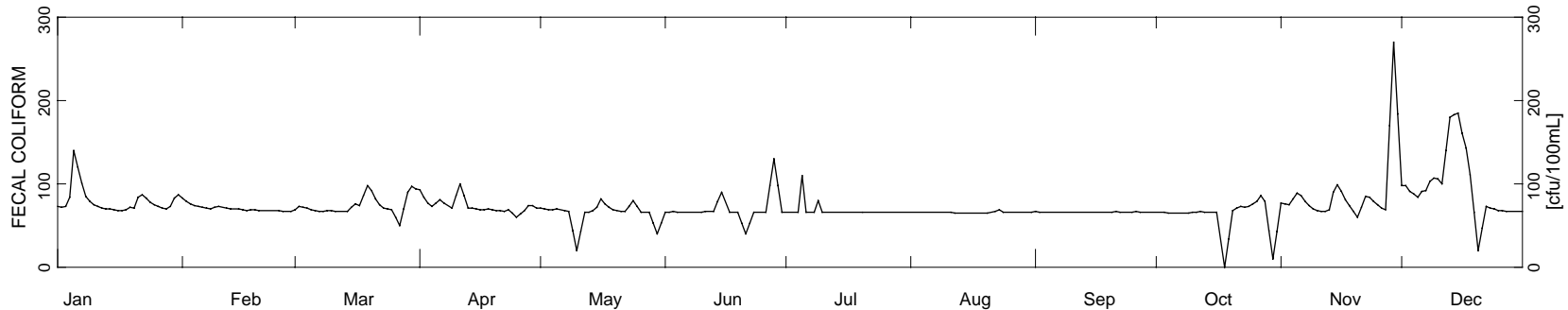
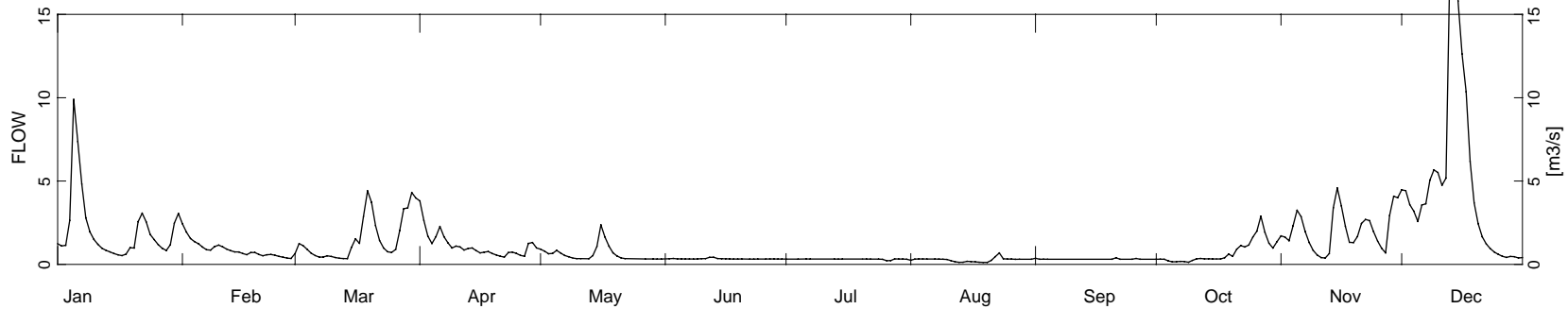


HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
SEMAIHMUO BAY
CIRCULATION STUDY

LITTLE CAMPBELL RIVER
2001 MODEL INPUTS

FIG.
 2.9

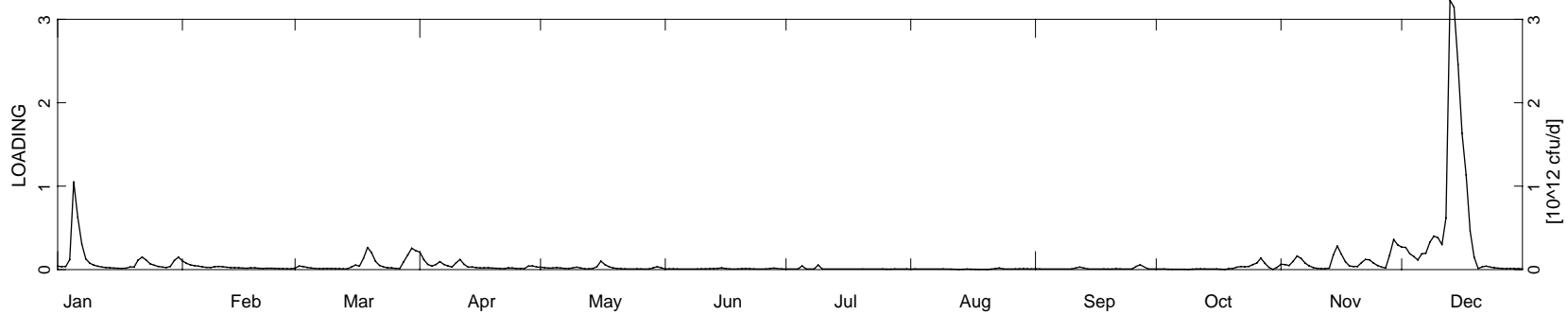
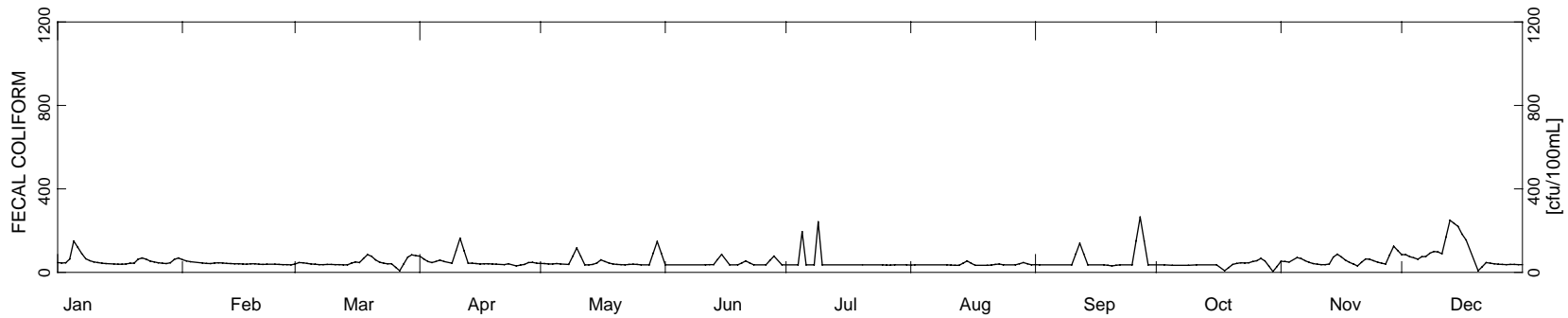
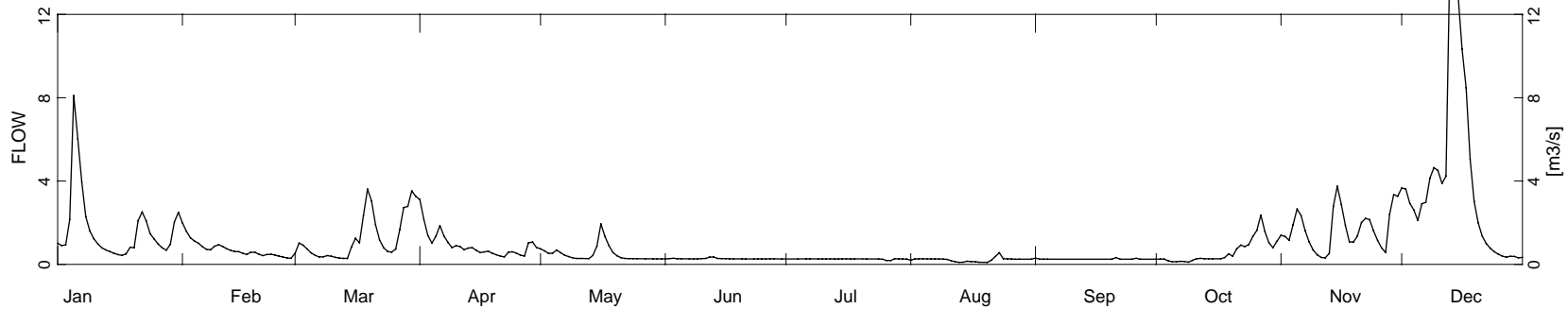


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ENVIRONMENT CANADA
SEMAIHMUO BAY
CIRCULATION STUDY

DAKOTA CREEK 2001
MODEL INPUTS

FIG.
 2.10

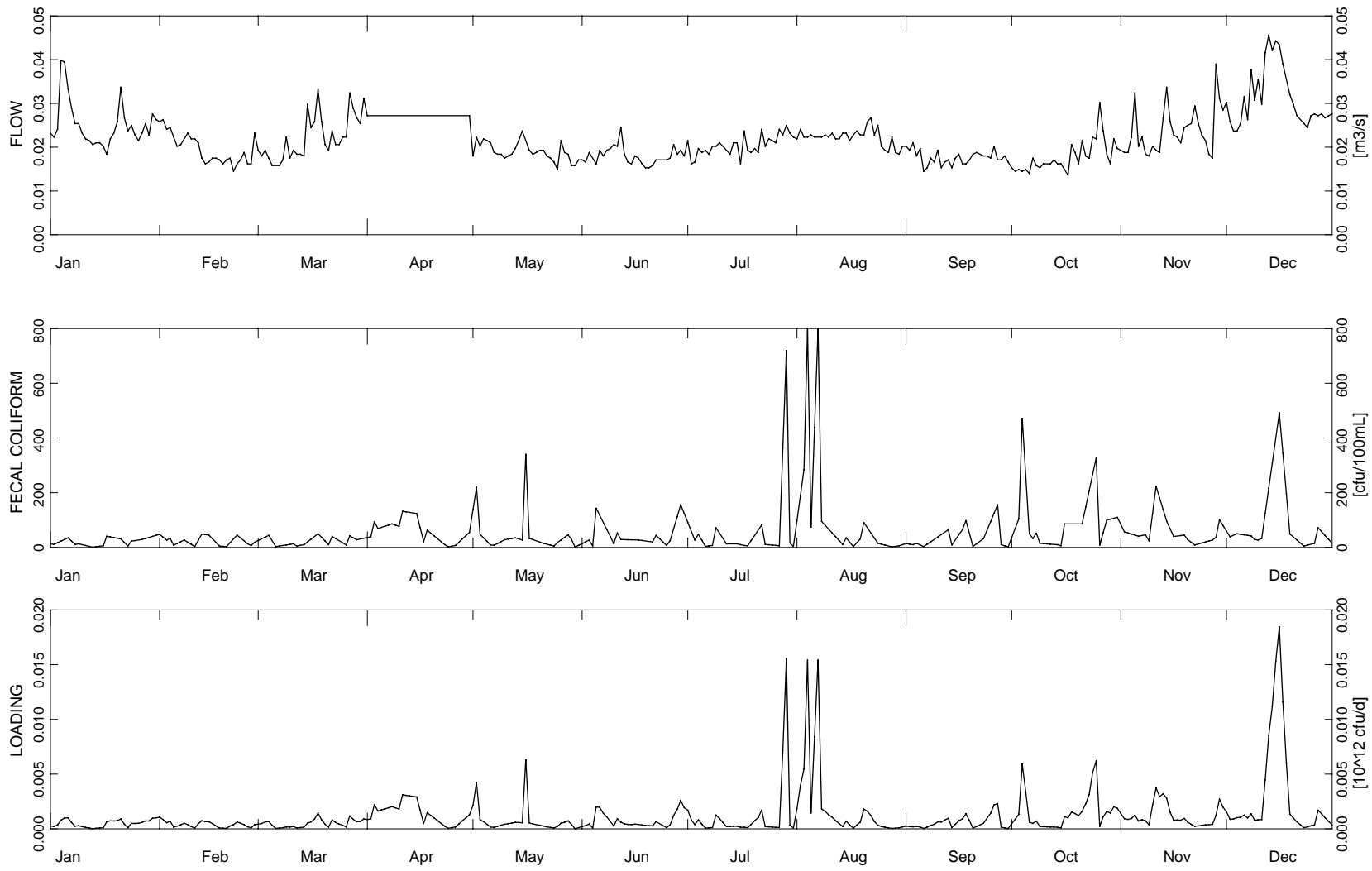


HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
SEMAIHMUO BAY
CIRCULATION STUDY

CALIFORNIA CREEK
2001 MODEL INPUTS

FIG.
 2.11



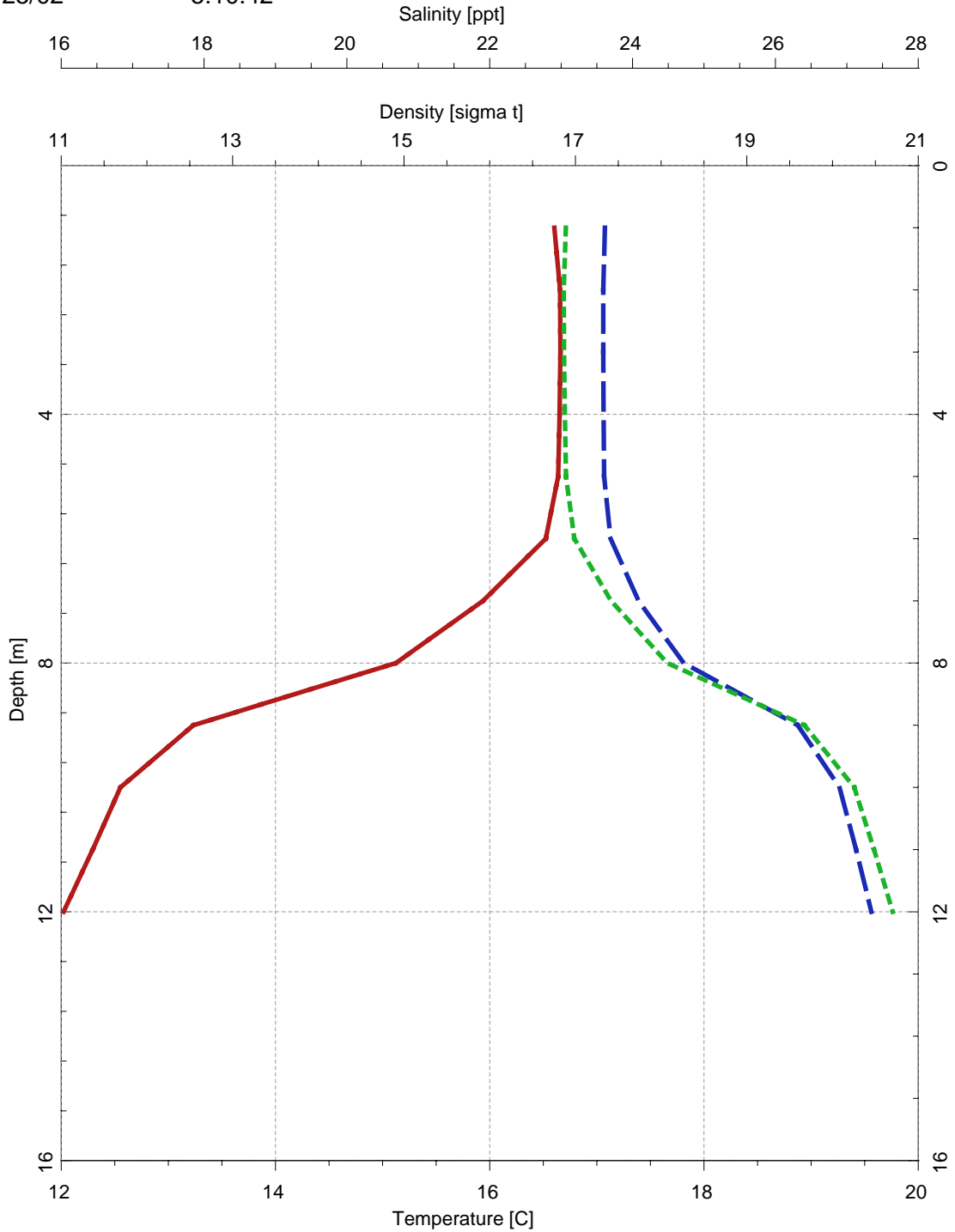
HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
SEMAIHMUO BAY
CIRCULATION STUDY

BLAINE STP 2001
MODEL INPUTS

FIG.
2.12

48 56.775 122 49.976 CTD1-18
Jul 25/02 5:10:42



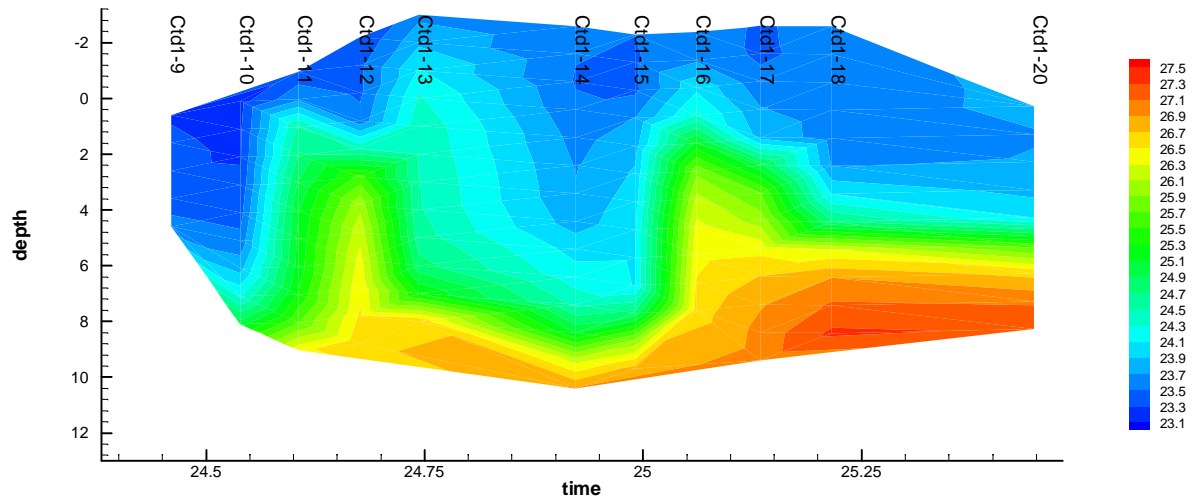
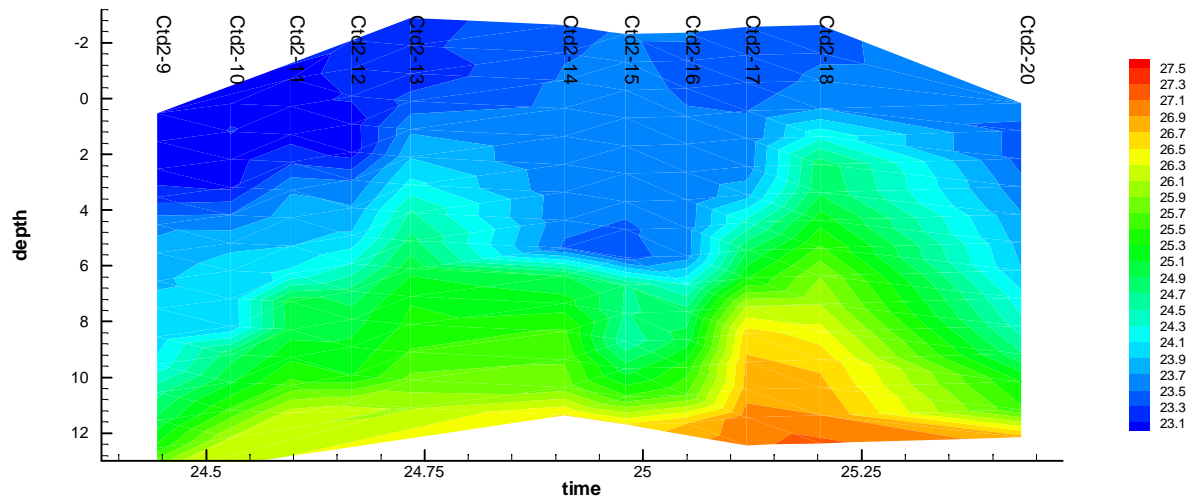
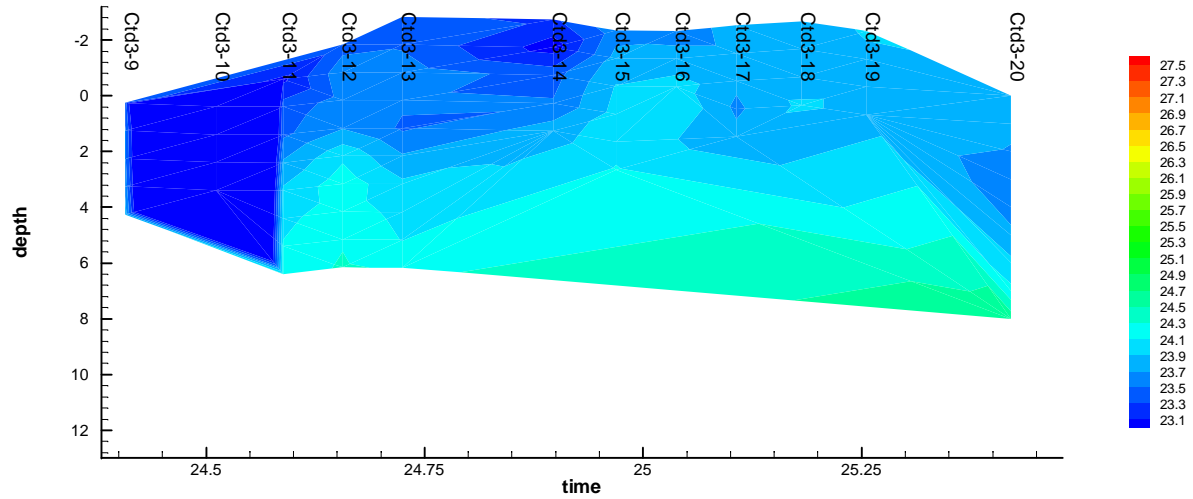
— Temperature [C] - - - Salinity [ppt] - - - Density [sigma t]

 HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
SEMIAHMOO BAY
CIRCULATION STUDY

SAMPLE CTD PROFILE
CTD1-18

FIG.
3.1



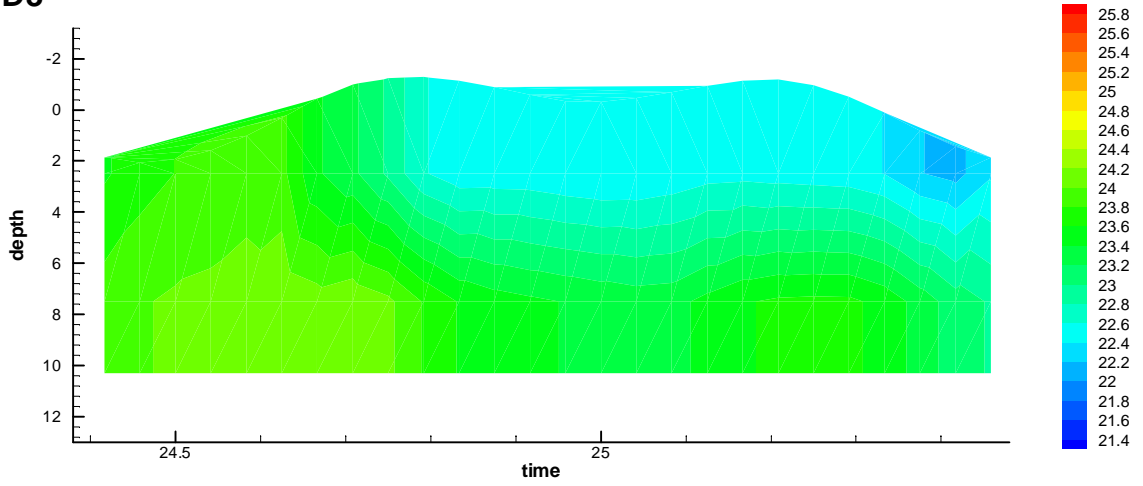
HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
**SEMIAHMOO BAY
 CIRCULATION STUDY**

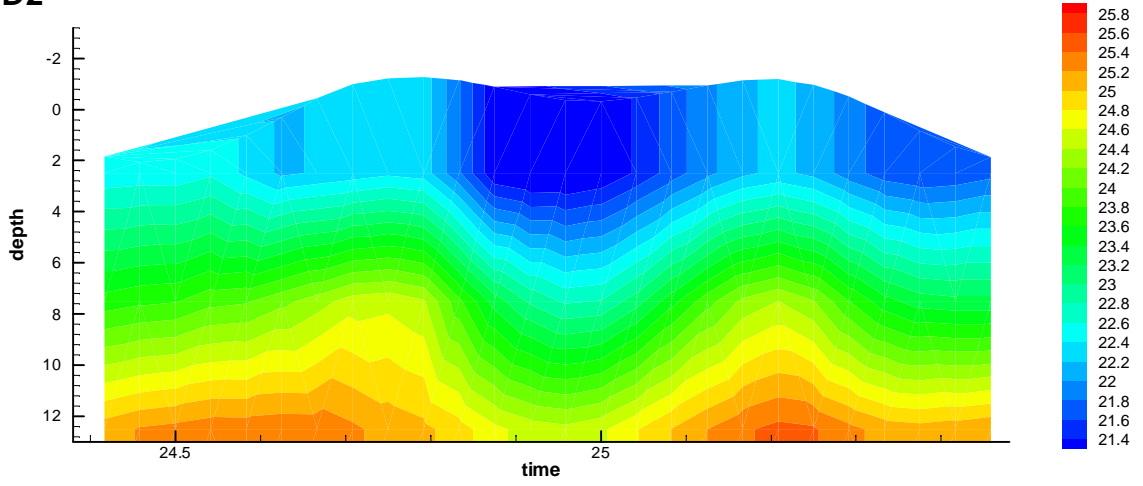
**OBSERVED SALINITY AT CTD STATIONS
 JULY 24-25, 2002**

**FIG.
 3.2**

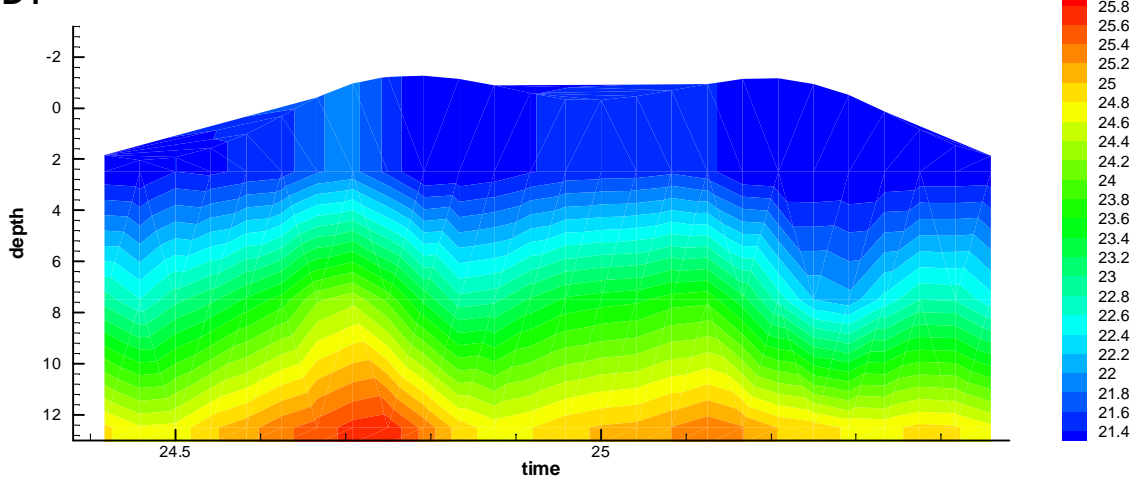
CTD3



CTD2



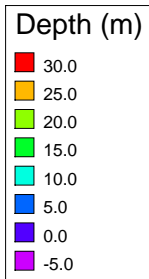
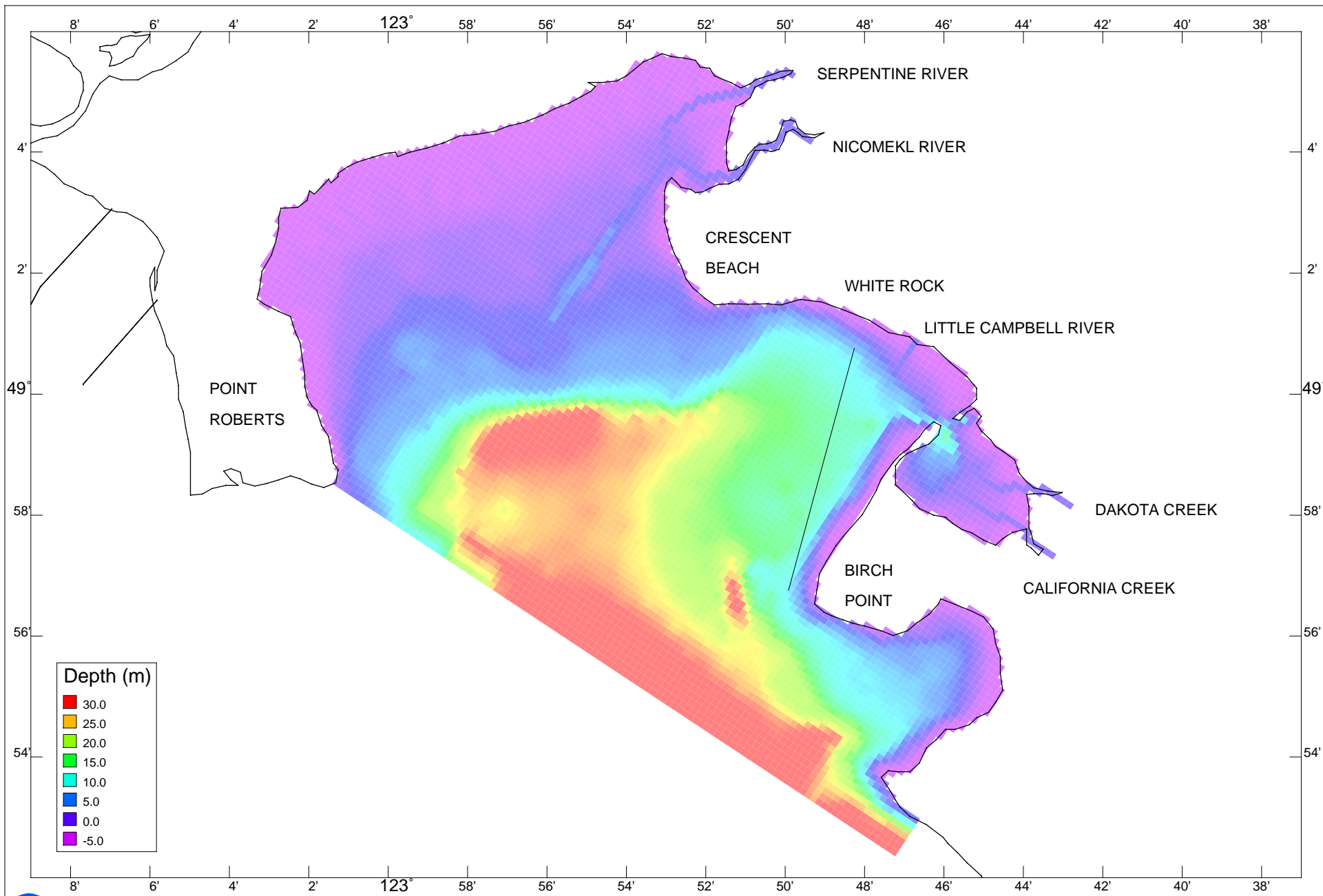
CTD1



ENVIRONMENT CANADA
**SEMIAHMOO BAY
CIRCULATION STUDY**

**MODELED SALINITY AT CTD STATION
LOCATIONS, JULY 24 - 25, 2002**

**FIG.
3.3**



 HAY & COMPANY CONSULTANTS INC.

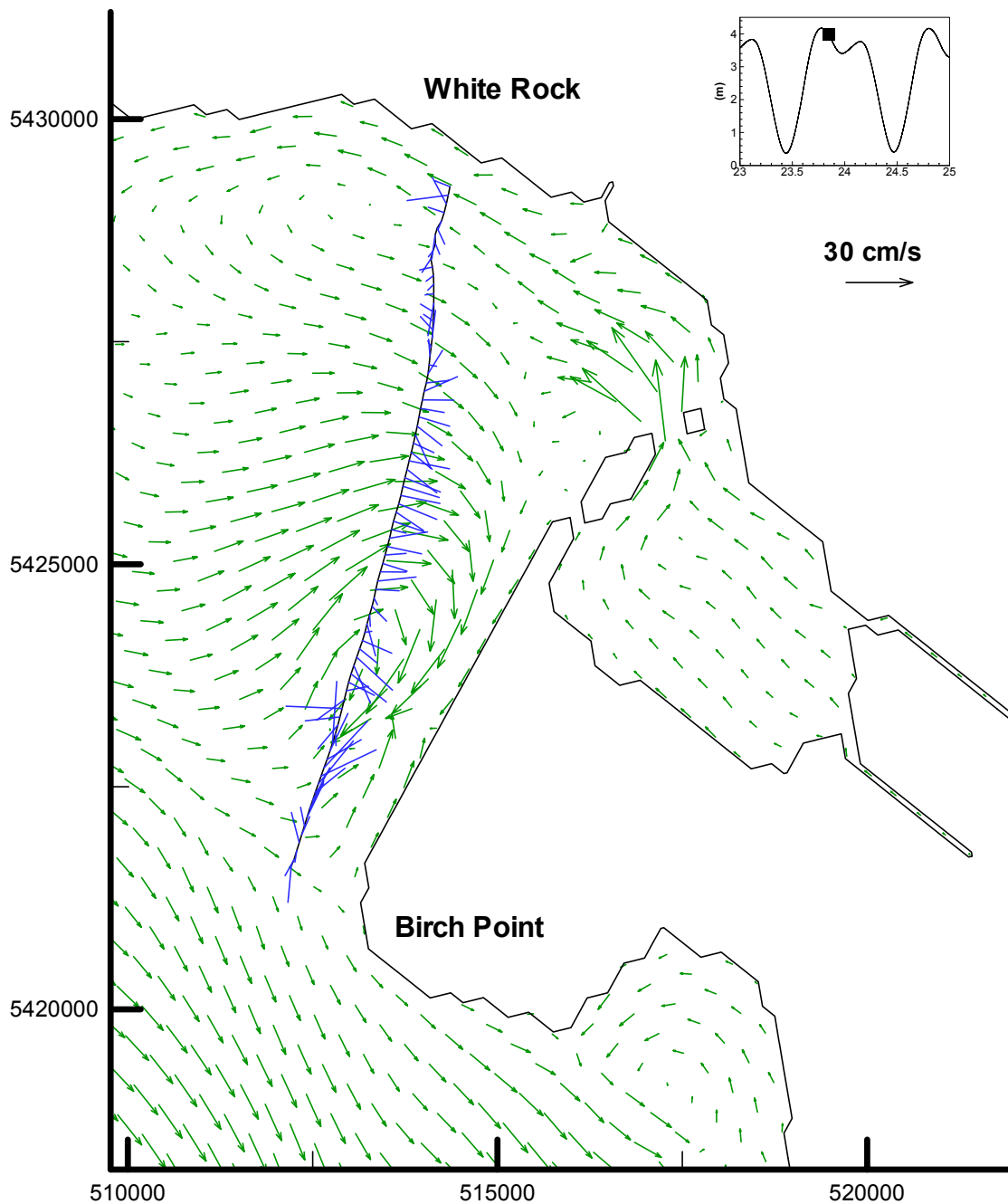
ENVIRONMENT CANADA
**SEMIAHMOO BAY
 CIRCULATION STUDY**

**H3D MODEL
 200-M GRID BATHYMETRY**

**FIG.
 3.4**

Field data shown for ADCP bin depth = 3.16 m

Model data shown for top layer



JULY 23, 2002
21:00



HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA

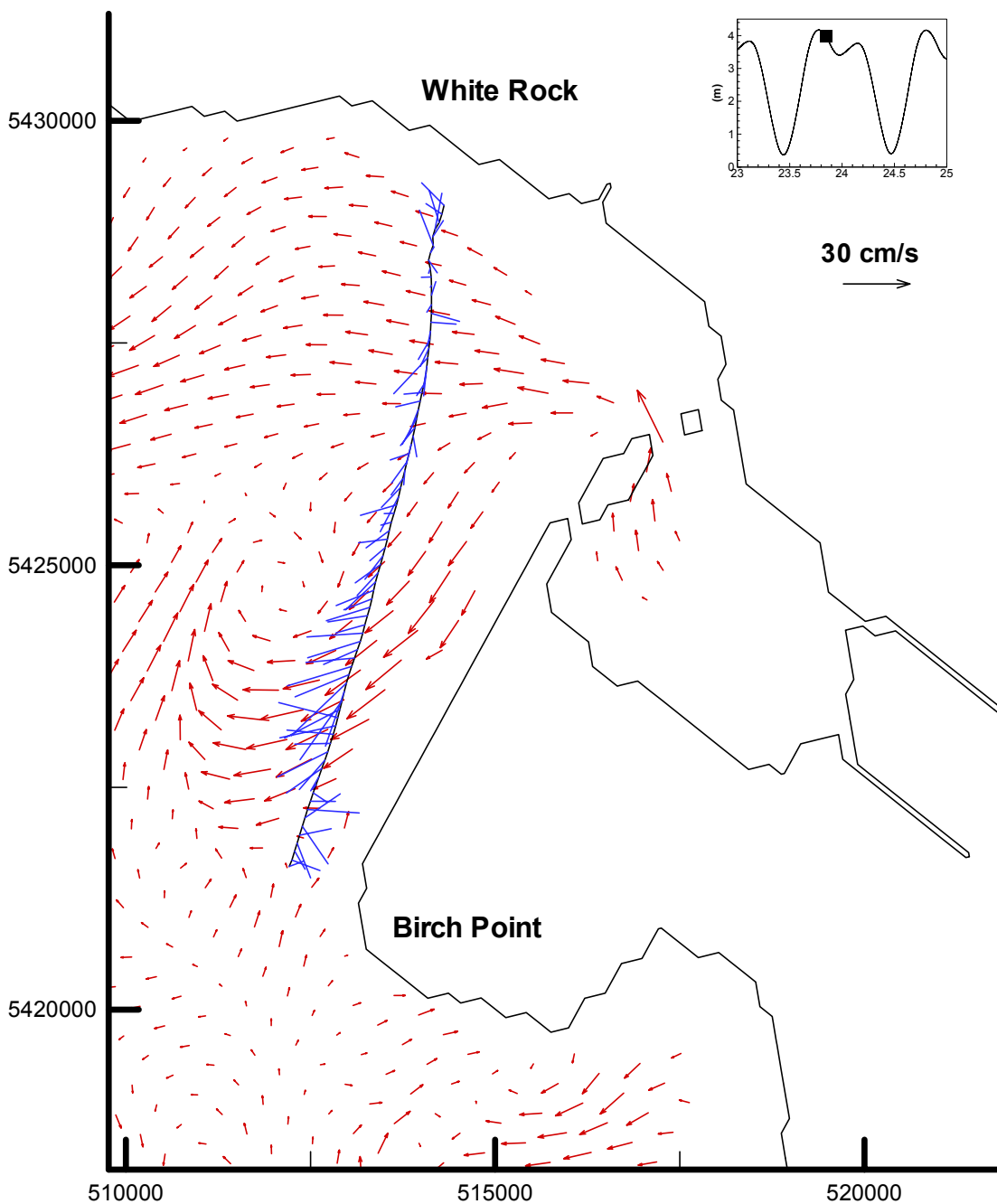
SEMAHMOO BAY
CIRCULATION STUDY

FIELD AND MODEL VELOCITIES
SURFACE LAYER

FIG.
3.5

Field data shown for ADCP bin depth = 8.66 m

Model data shown for second layer



JULY 23, 2002
21:00



HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA

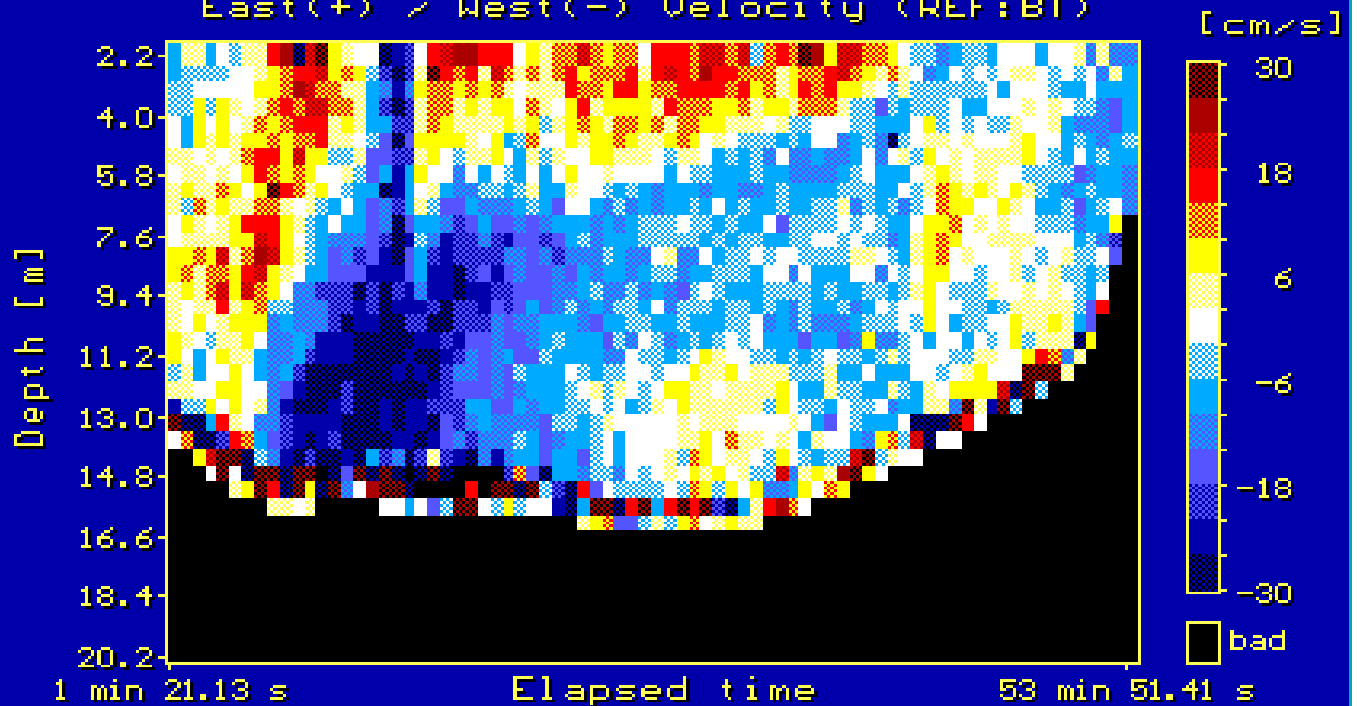
SEMAIHMUO BAY
CIRCULATION STUDY

FIELD AND MODEL VELOCITIES
SECOND LAYER

FIG.
3.6

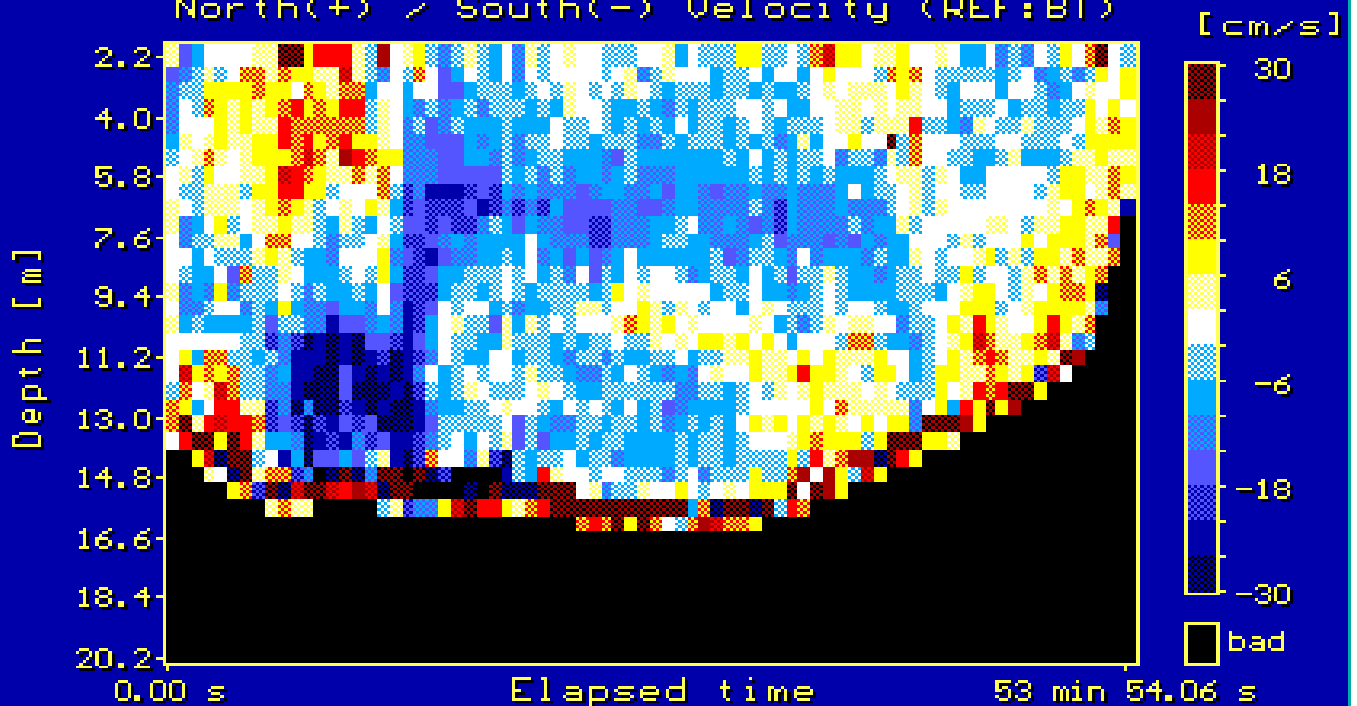
Semiahmoo Bay Measured Water Velocities
July 23, 2002 @ 20:17 hr. 3.980 m ebb tide

East(+) / West(-) Velocity (REF:BT)



Semiahmoo Bay Measured Water Velocities
July 23, 2002 @ 20:17 hr. 3.980 m ebb tide

North(+) / South(-) Velocity (REF:BT)



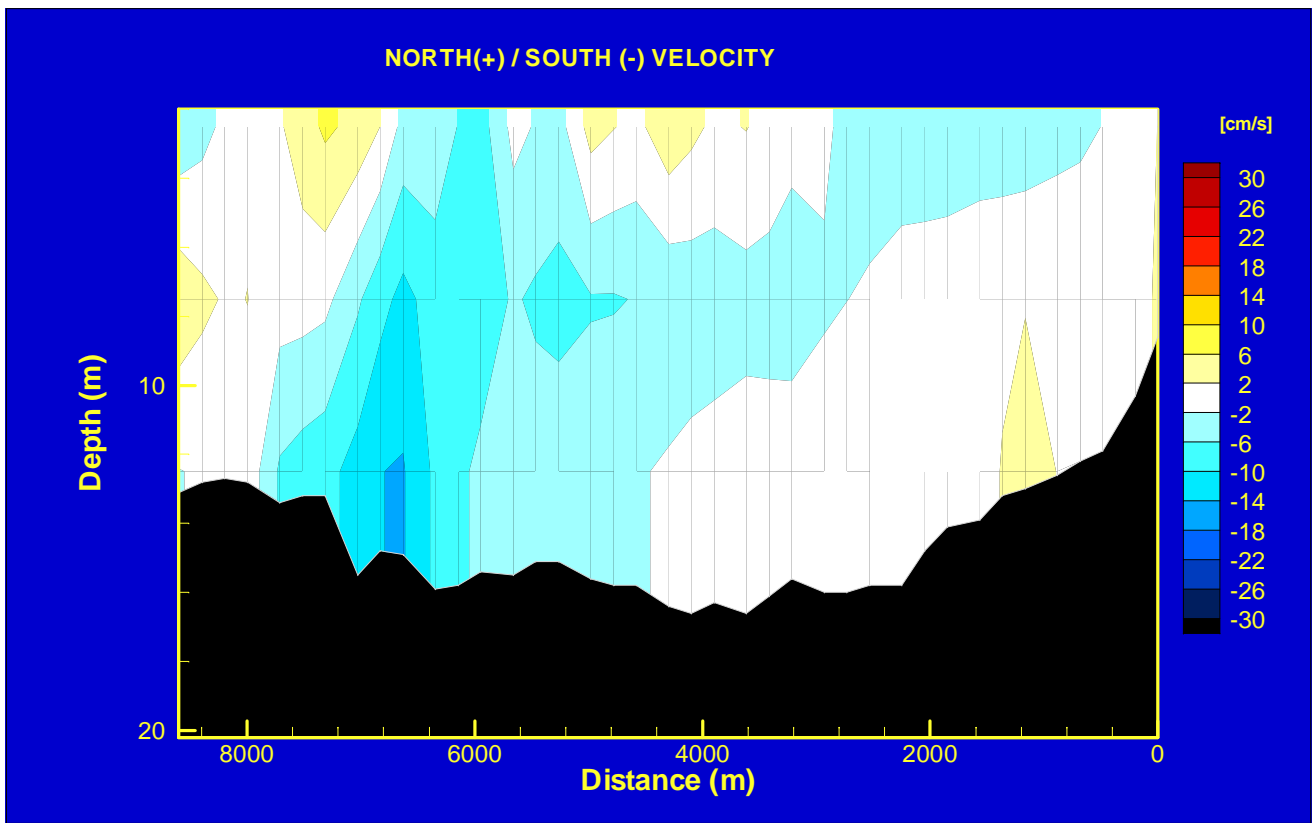
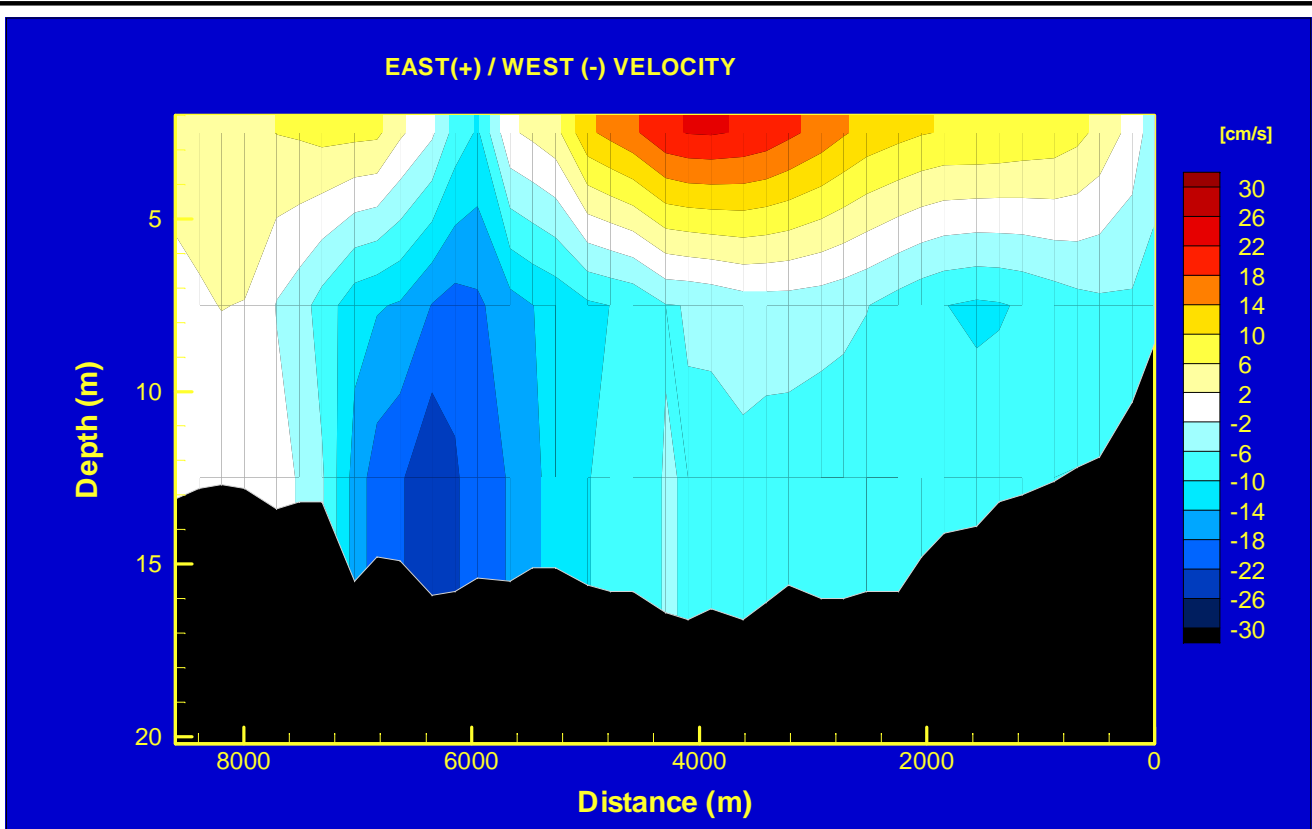
HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA

**SEMAIHMUO BAY
CIRCULATION STUDY**

**ADCP VELOCITY TRANSECT
JULY 23/02 @ 20:17 HR.**

FIG.
3.7

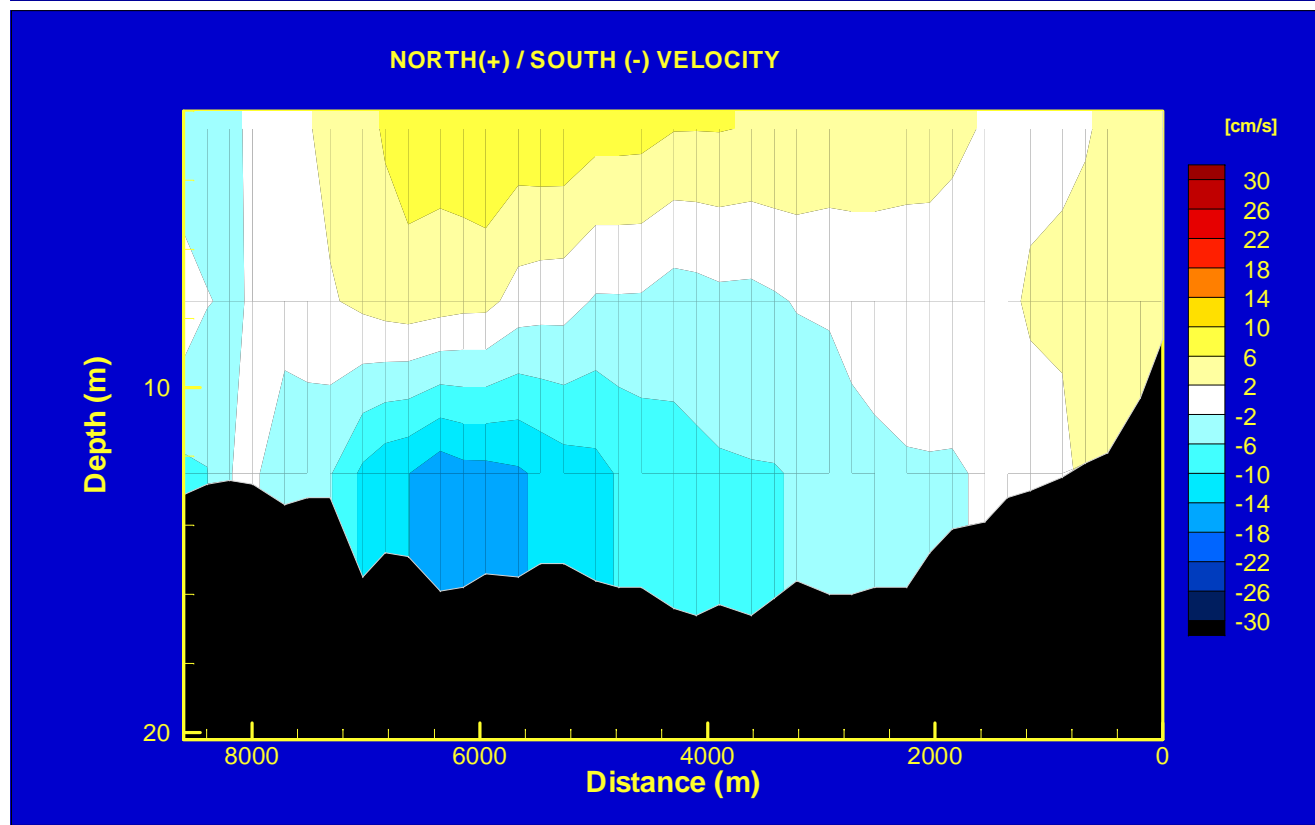
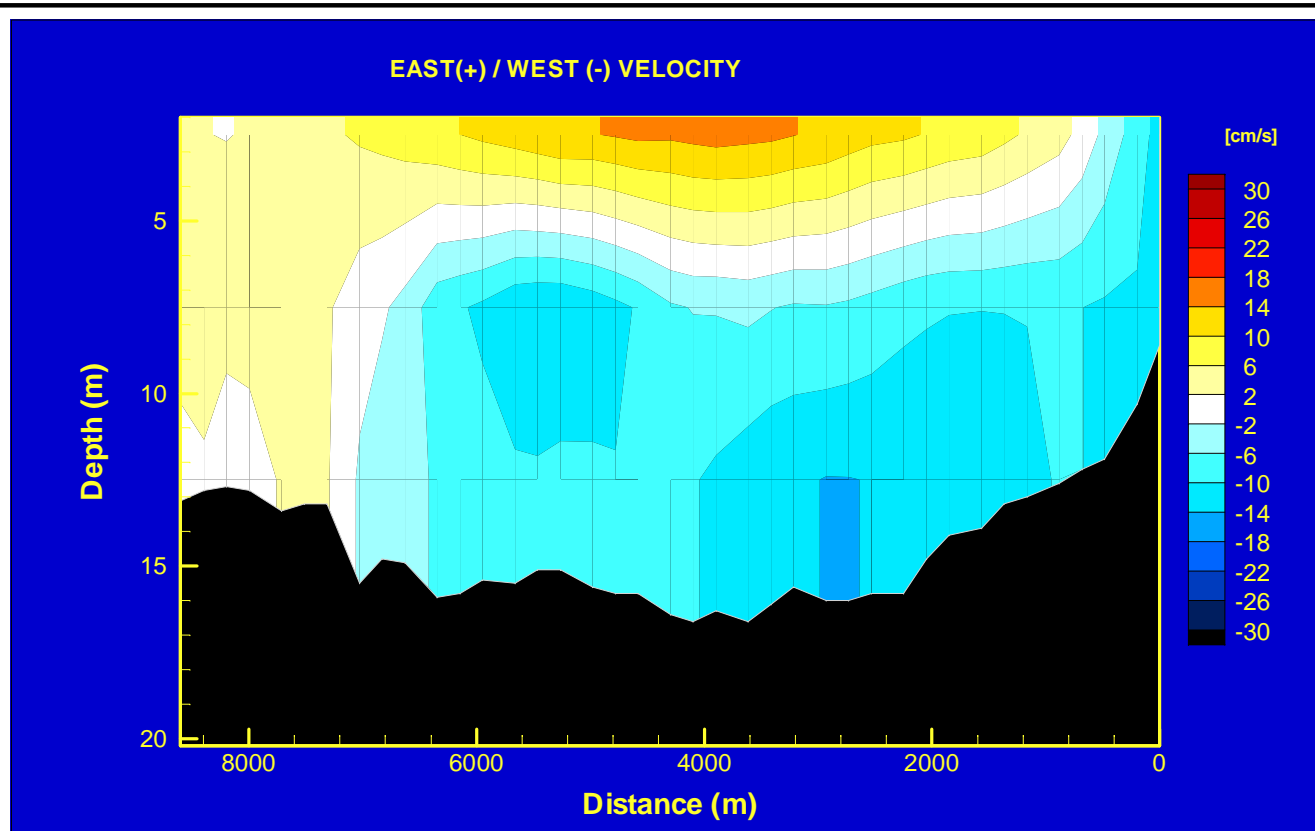


 HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
**SEMIAHMOO BAY
 CIRCULATION STUDY**

**MODELED VELOCITY TRANSECT
 JULY 23, 2002 21:00 HR.**

**FIG.
 3.8**

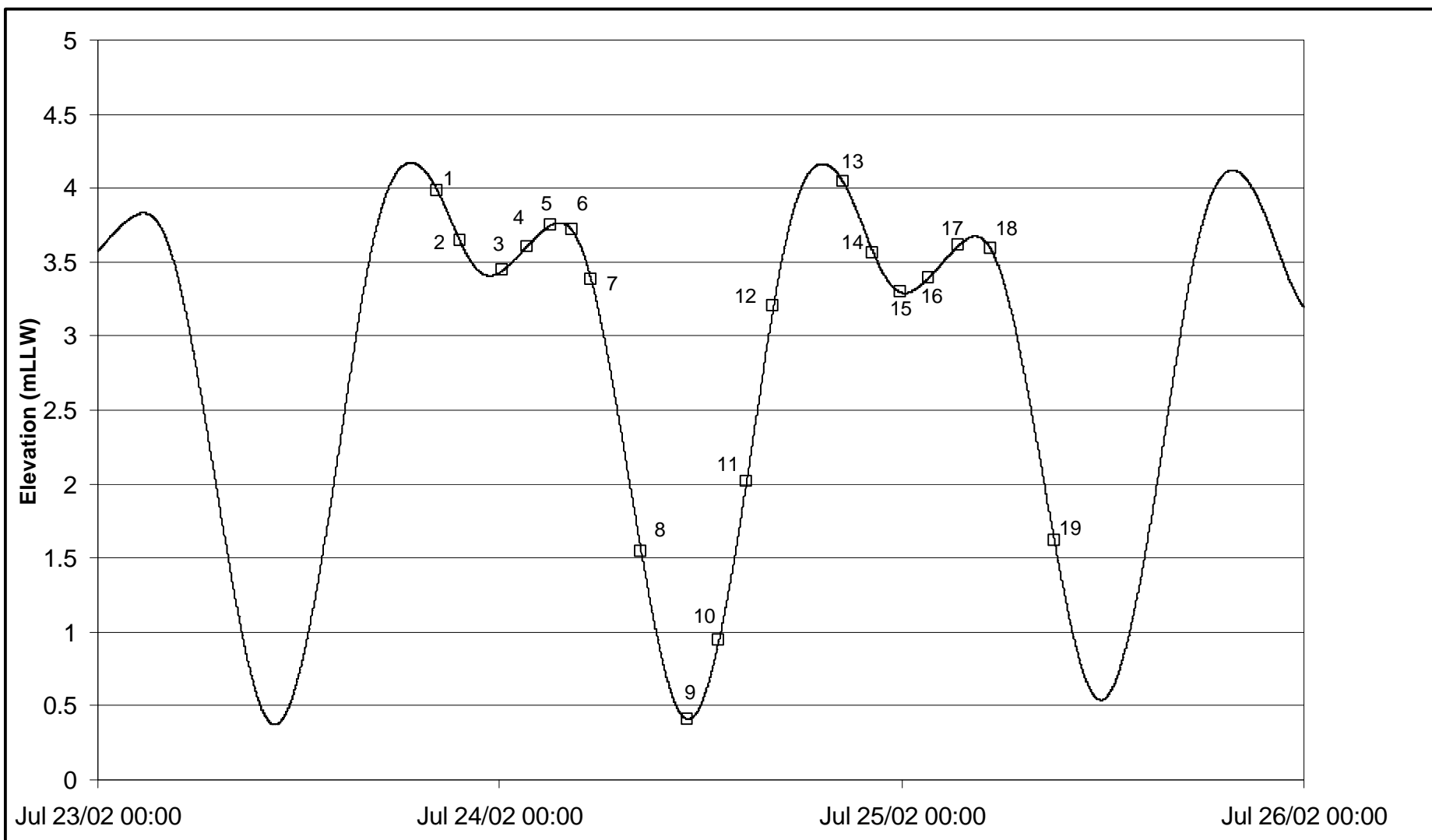


 HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
SEMIAHMOO BAY
CIRCULATION STUDY

MODELED VELOCITY TRANSECT
JULY 23, 2002 21:00 HR.

FIG.
3.9



 HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
**SEMAHMOO BAY
 CIRCULATION STUDY**

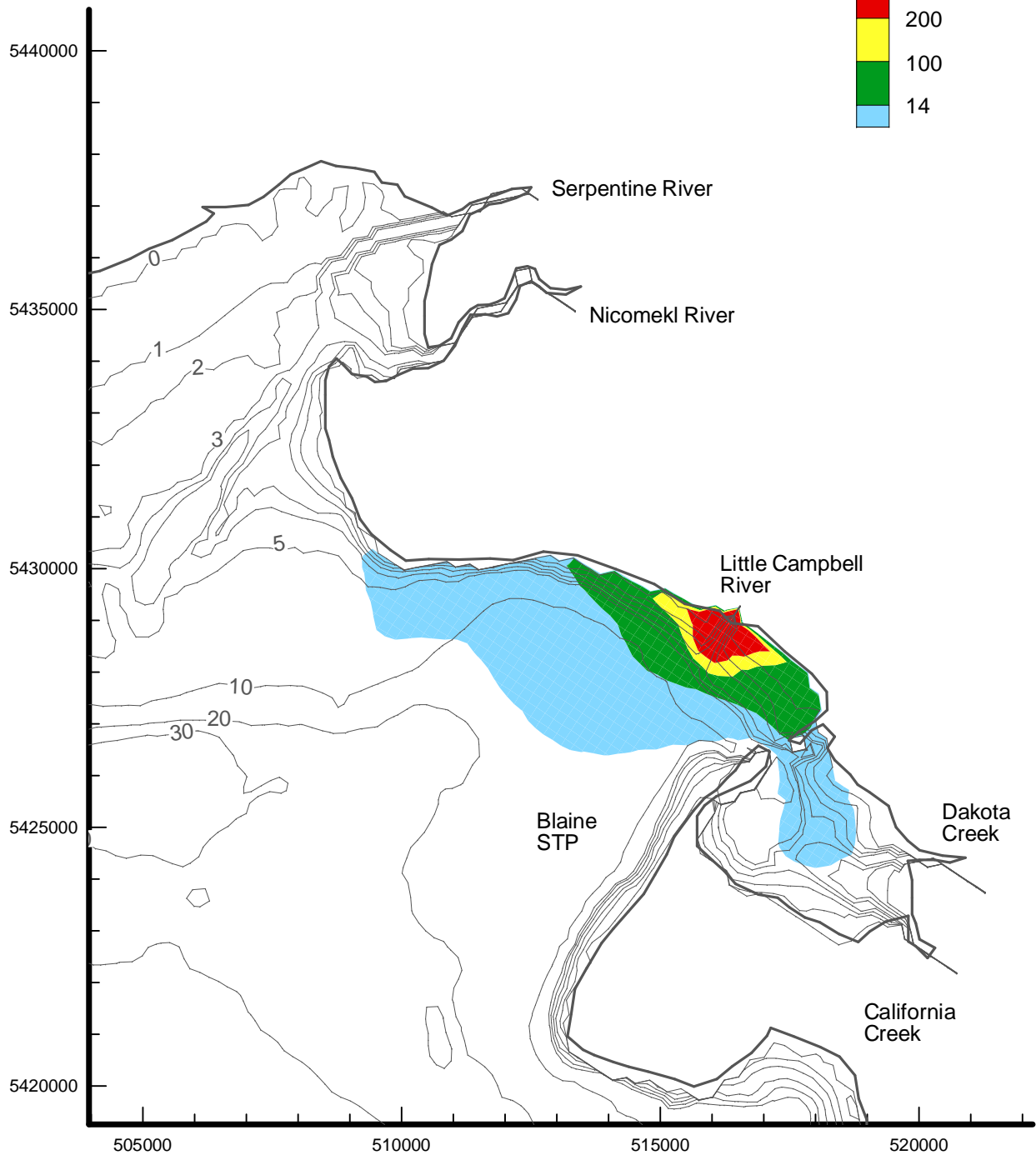
**SEMAHMOO BAY TIDES
 AND ADCP TRANSECTS**

FIG.
 3.10

EXCEL FILE: I:\envi-003\working\red\adcp\ADCP-positions.xls

DECEMBER 2001

Fecal coliform concentration
(CFU / 100 mL)



HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA

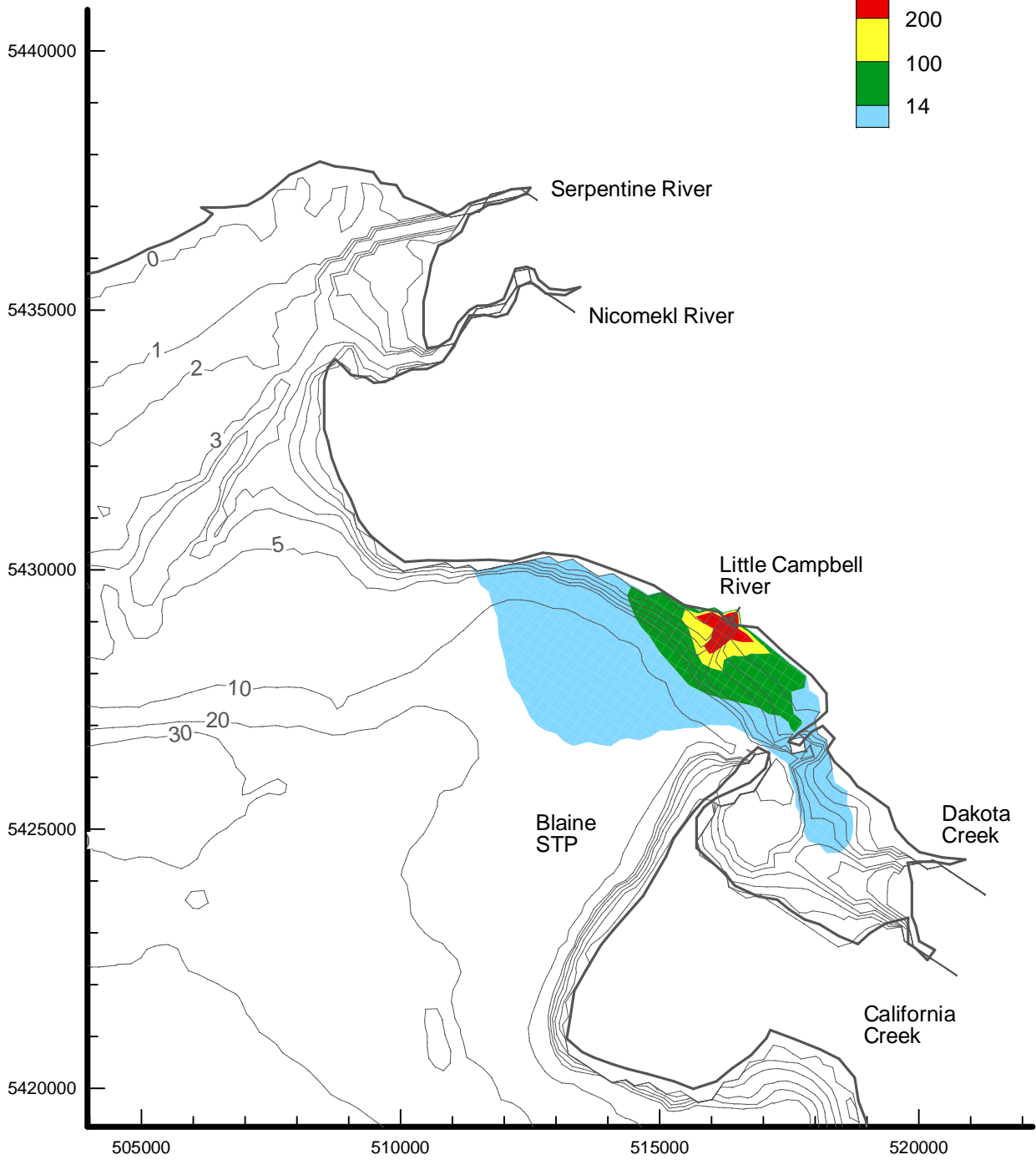
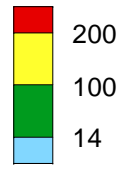
**SEMAHMOO BAY
CIRCULATION STUDY**

**MAXIMUM FECAL COLIFORM CONCENTRATION
FROM LITTLE CAMPBELL RIVER**

**FIG.
4.1**

JANUARY 2001

Fecal coliform concentration
(CFU / 100 mL)



 HAY & COMPANY CONSULTANTS INC.

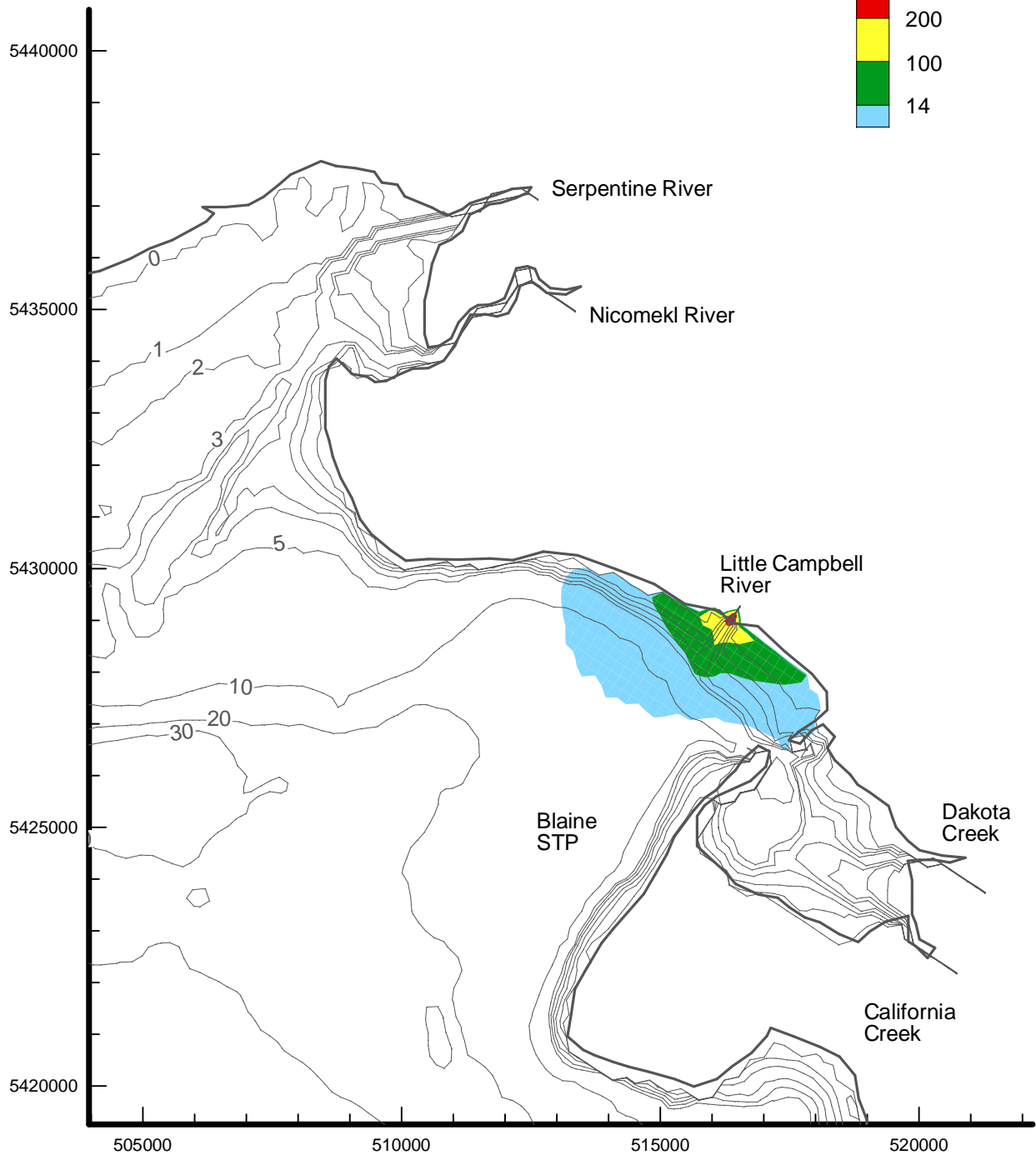
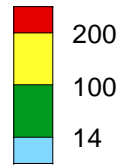
ENVIRONMENT CANADA
**SEMAHMOO BAY
CIRCULATION STUDY**

**MAXIMUM FECAL COLIFORM CONCENTRATION
FROM LITTLE CAMPBELL RIVER**

**FIG.
4.2**

MAY 2001

Fecal coliform concentration (CFU / 100 mL)



HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA

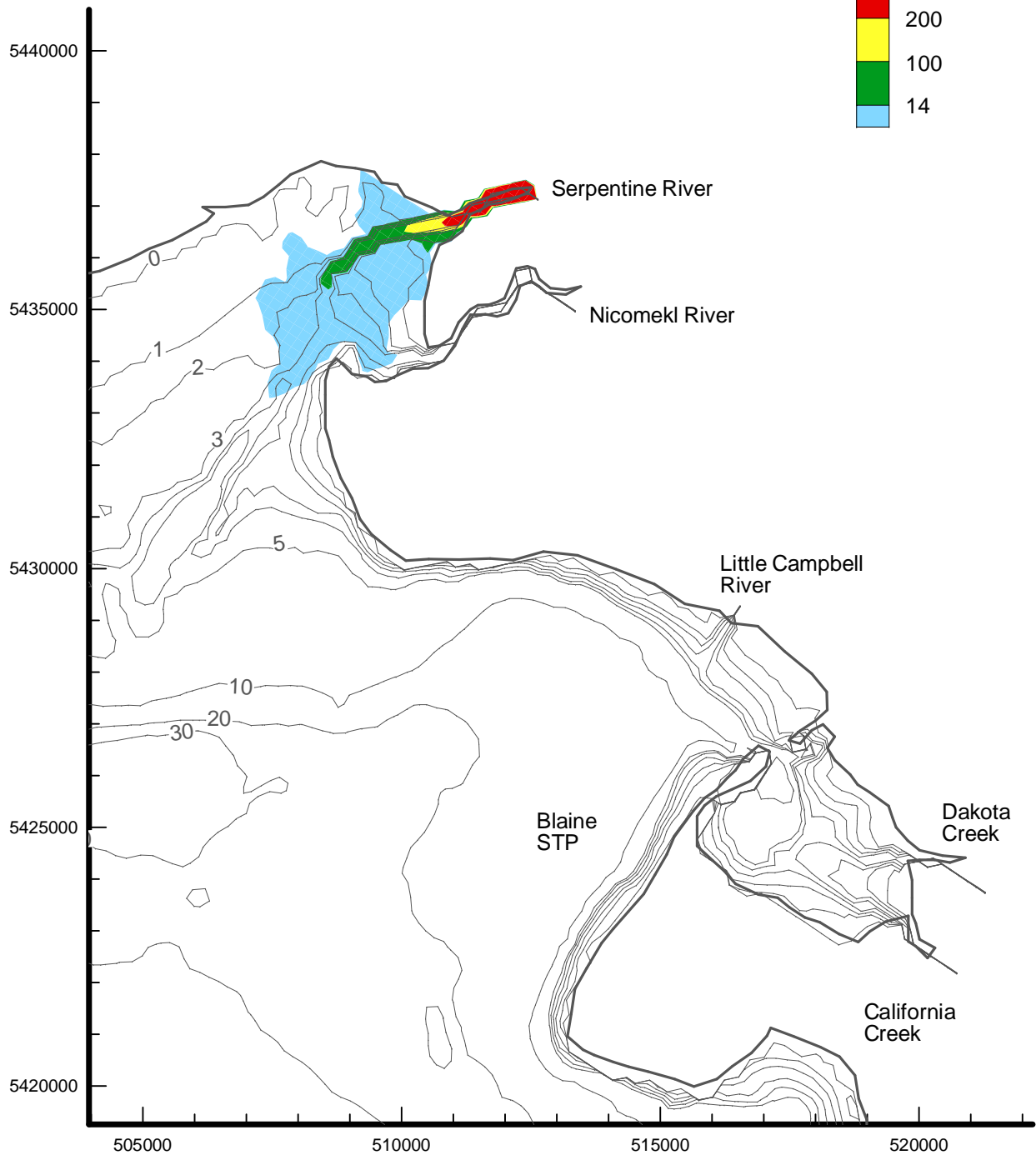
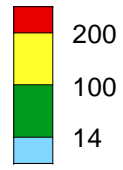
**SEMAHMOO BAY
CIRCULATION STUDY**

**MAXIMUM FECAL COLIFORM CONCENTRATION
FROM LITTLE CAMPBELL RIVER**

**FIG.
4.3**

DECEMBER 2001

Fecal coliform concentration
(CFU / 100 mL)



HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA

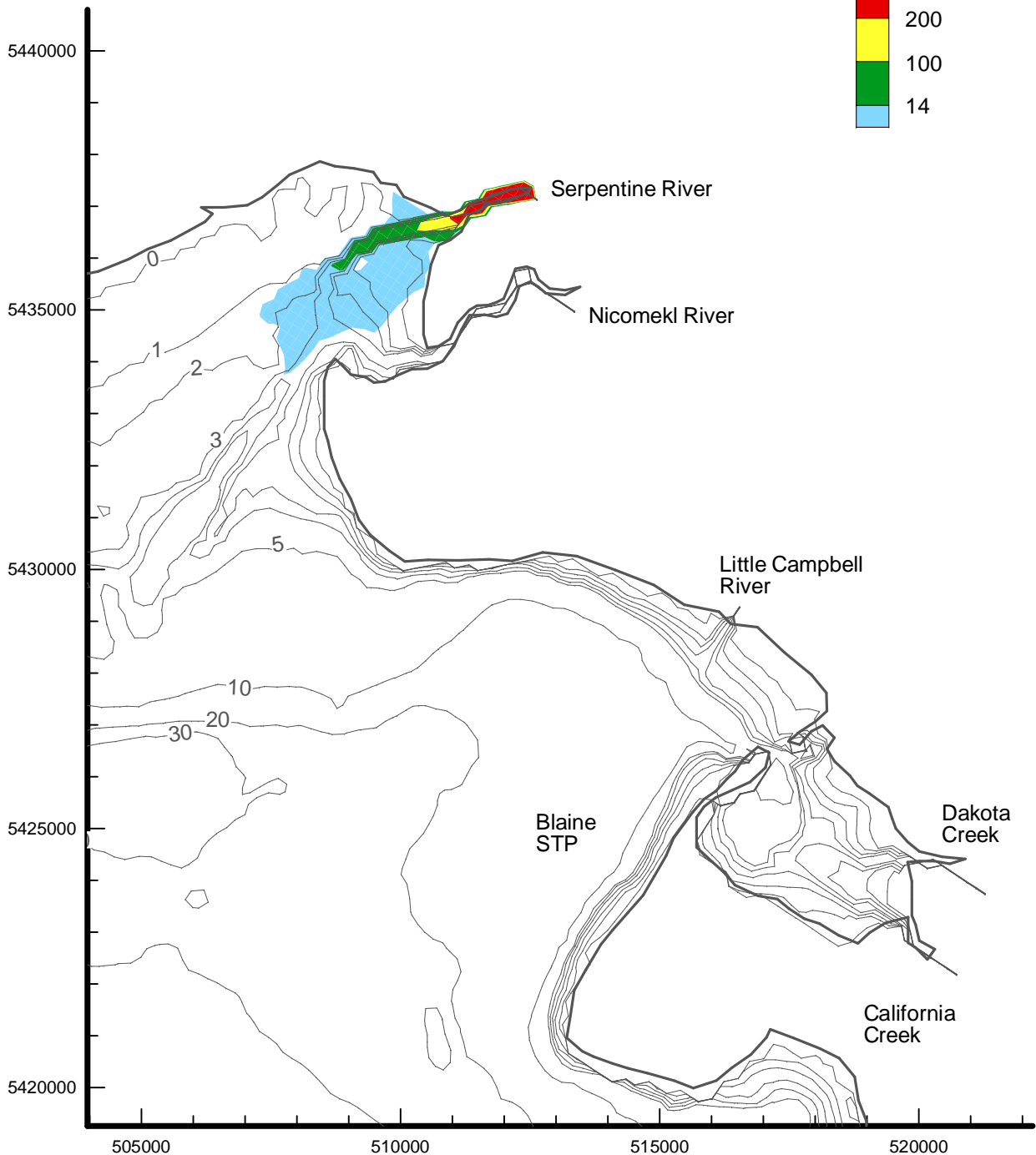
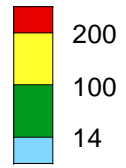
**SEMAIHMUO BAY
CIRCULATION STUDY**

**MAXIMUM FECAL COLIFORM CONCENTRATION
FROM SERPENTINE RIVER**

**FIG.
4.4**

JANUARY 2001

Fecal coliform concentration
(CFU / 100 mL)



 HAY & COMPANY CONSULTANTS INC.

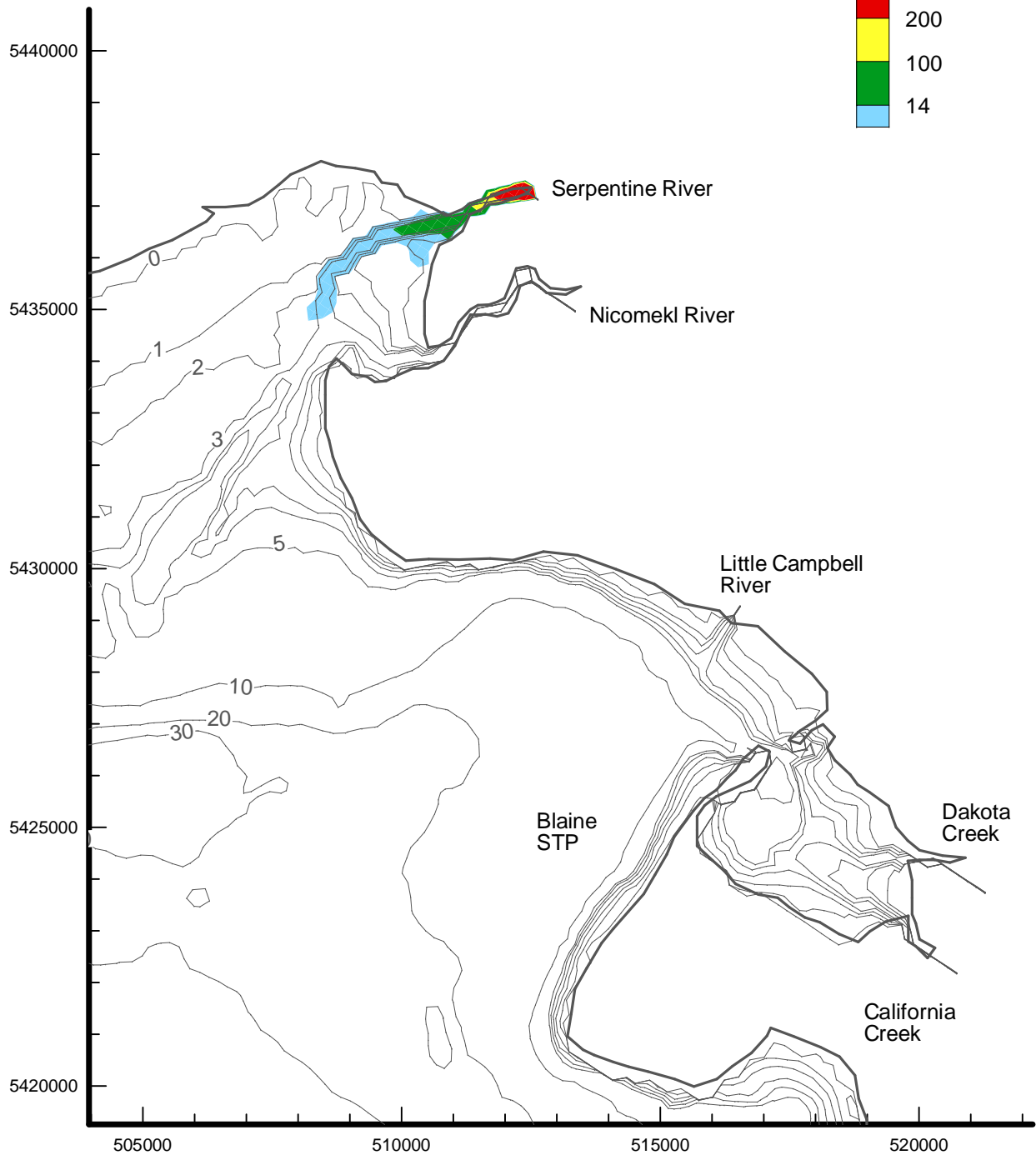
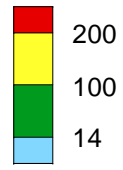
ENVIRONMENT CANADA
**SEMIAHMOO BAY
CIRCULATION STUDY**

**MAXIMUM FECAL COLIFORM CONCENTRATION
FROM SERPENTINE RIVER**

**FIG.
4.5**

MAY 2001

Fecal coliform concentration
(CFU / 100 mL)



HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA

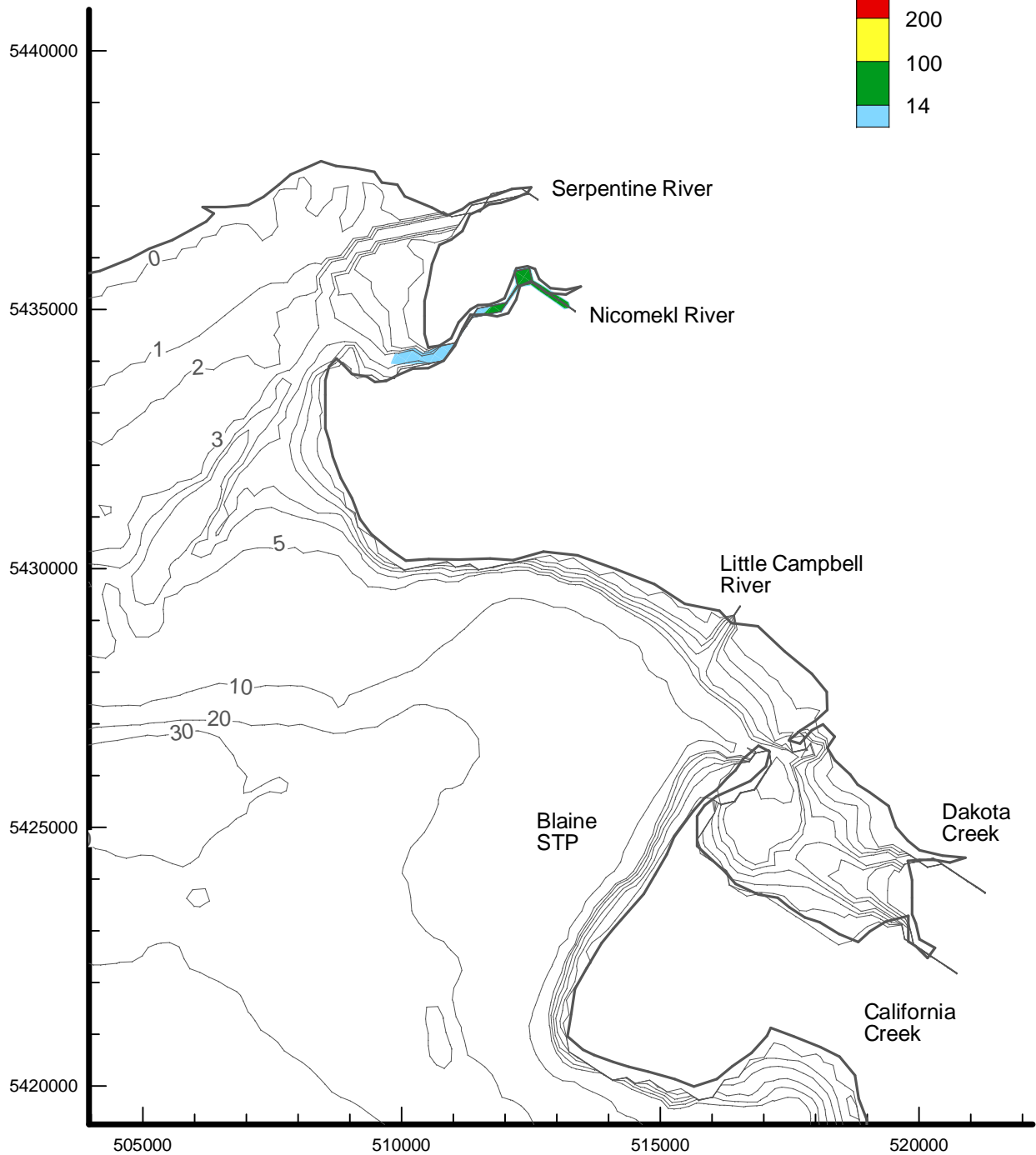
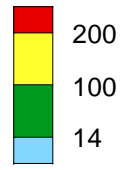
**SEMAHMOO BAY
CIRCULATION STUDY**

**MAXIMUM FECAL COLIFORM CONCENTRATION
FROM SERPENTINE RIVER**

**FIG.
4.6**

DECEMBER 2001

Fecal coliform concentration
(CFU / 100 mL)



HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA

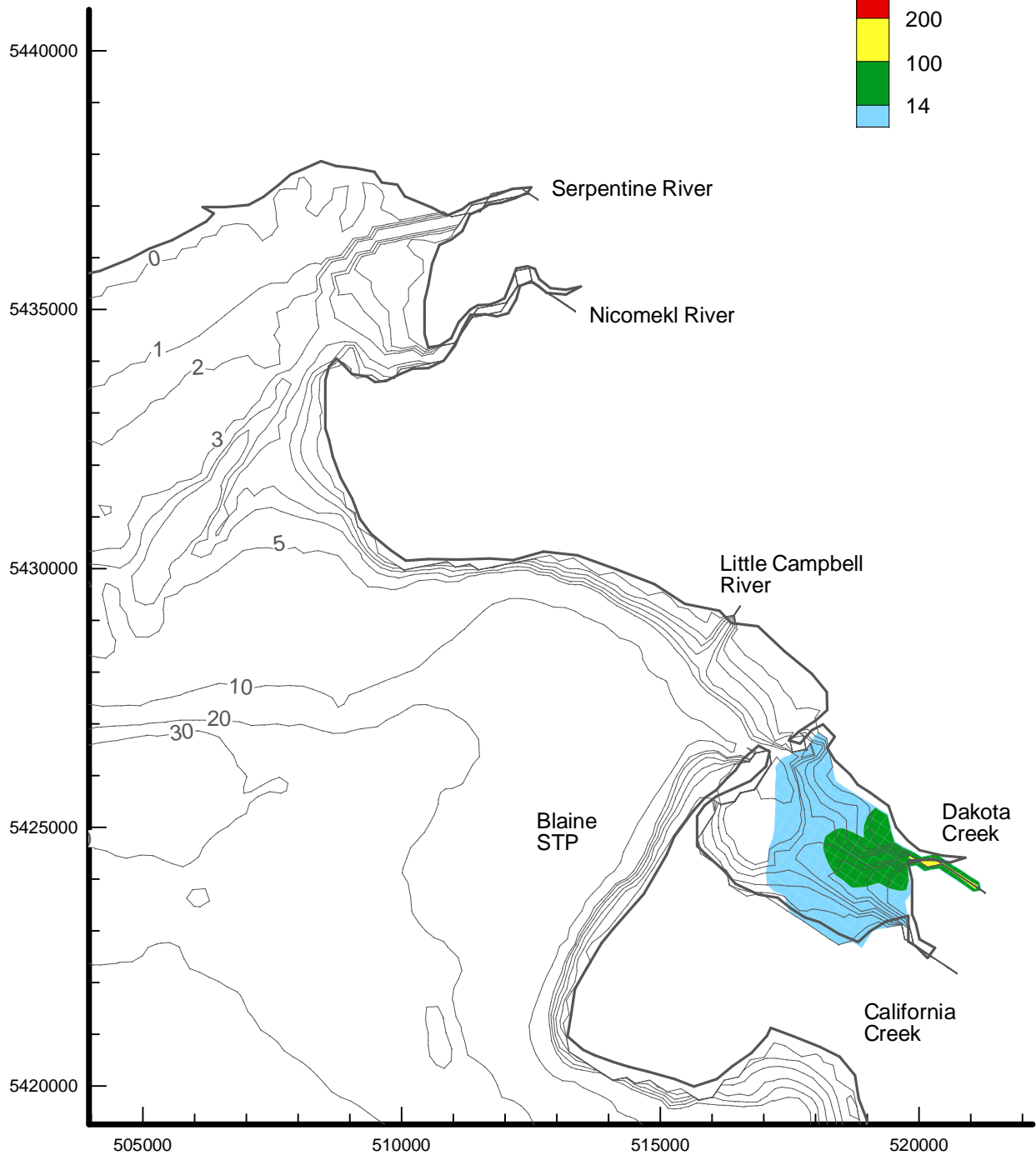
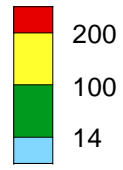
**SEMAIHMUO BAY
CIRCULATION STUDY**

**MAXIMUM FECAL COLIFORM CONCENTRATION
FROM NICOMEKL RIVER**

**FIG.
4.7**

DECEMBER 2001

Fecal coliform concentration
(CFU / 100 mL)



HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA

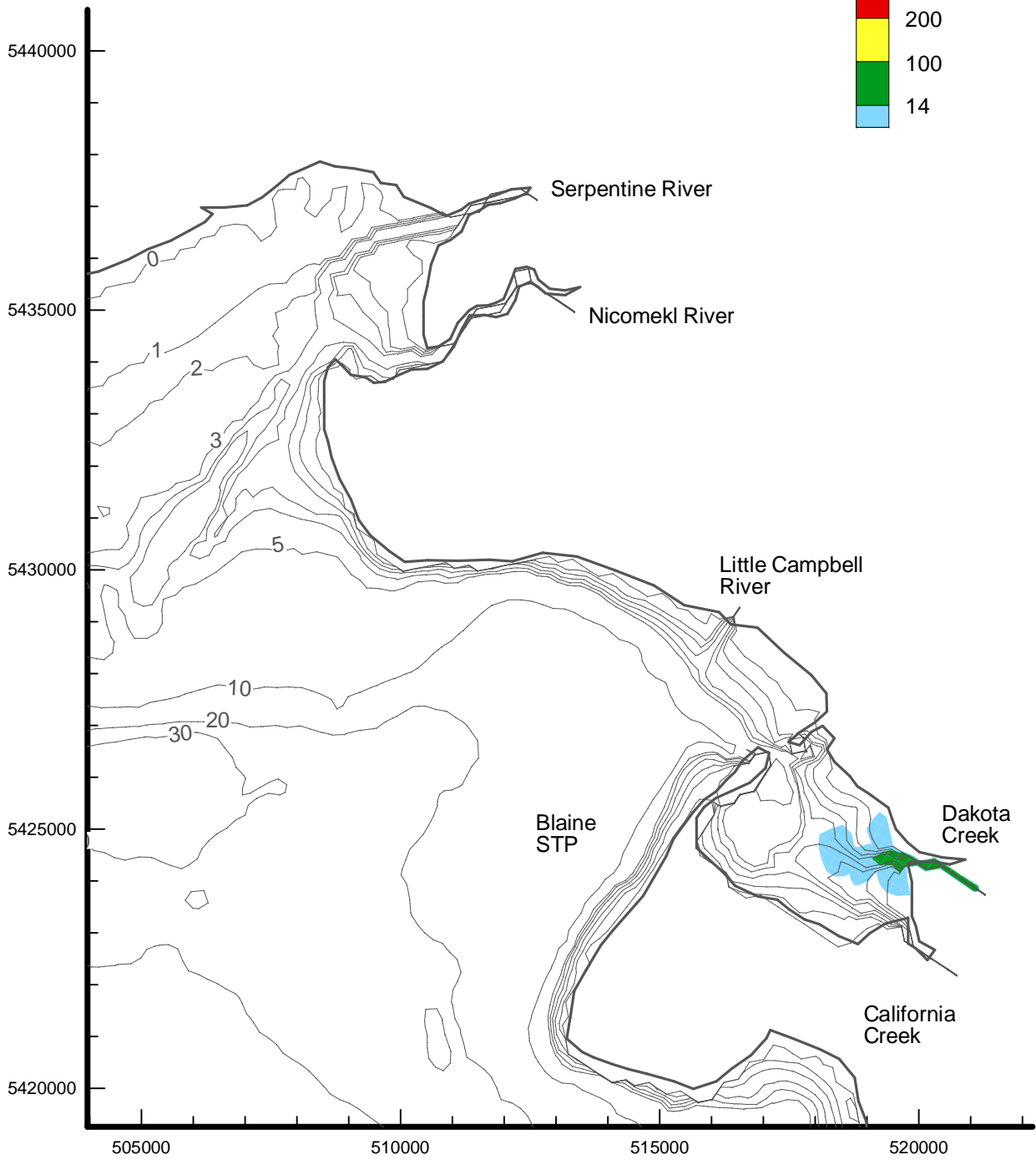
**SEMAHMOO BAY
CIRCULATION STUDY**

**MAXIMUM FECAL COLIFORM CONCENTRATION
FROM DAKOTA CREEK**

**FIG.
4.8**

JANUARY 2001

Fecal coliform concentration
(CFU / 100 mL)



 HAY & COMPANY CONSULTANTS INC.

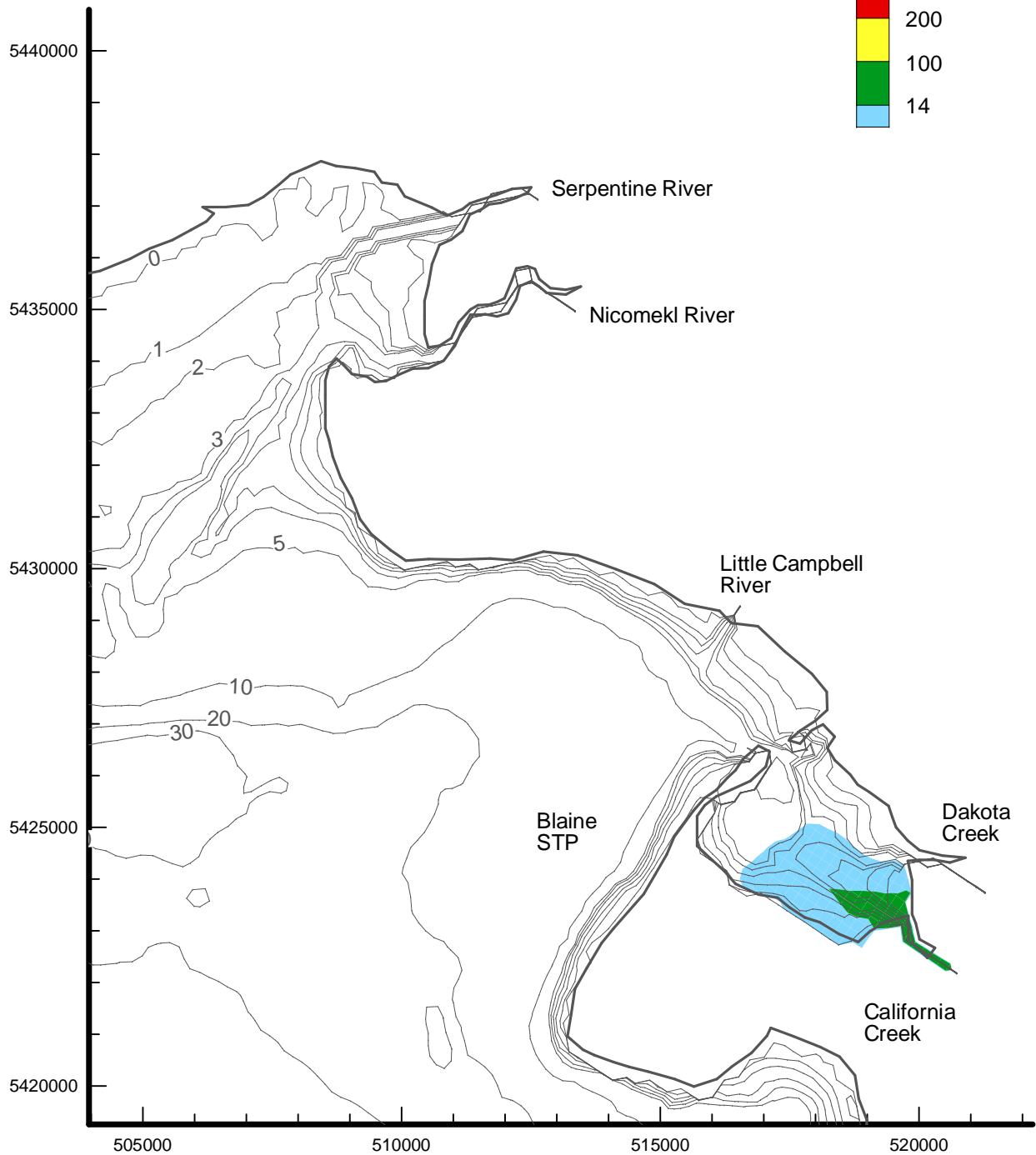
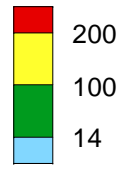
ENVIRONMENT CANADA
**SEMAHMOO BAY
CIRCULATION STUDY**

**MAXIMUM FECAL COLIFORM CONCENTRATION
FROM DAKOTA CREEK**

**FIG.
4.9**

DECEMBER 2001

Fecal coliform concentration
(CFU / 100 mL)



HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA

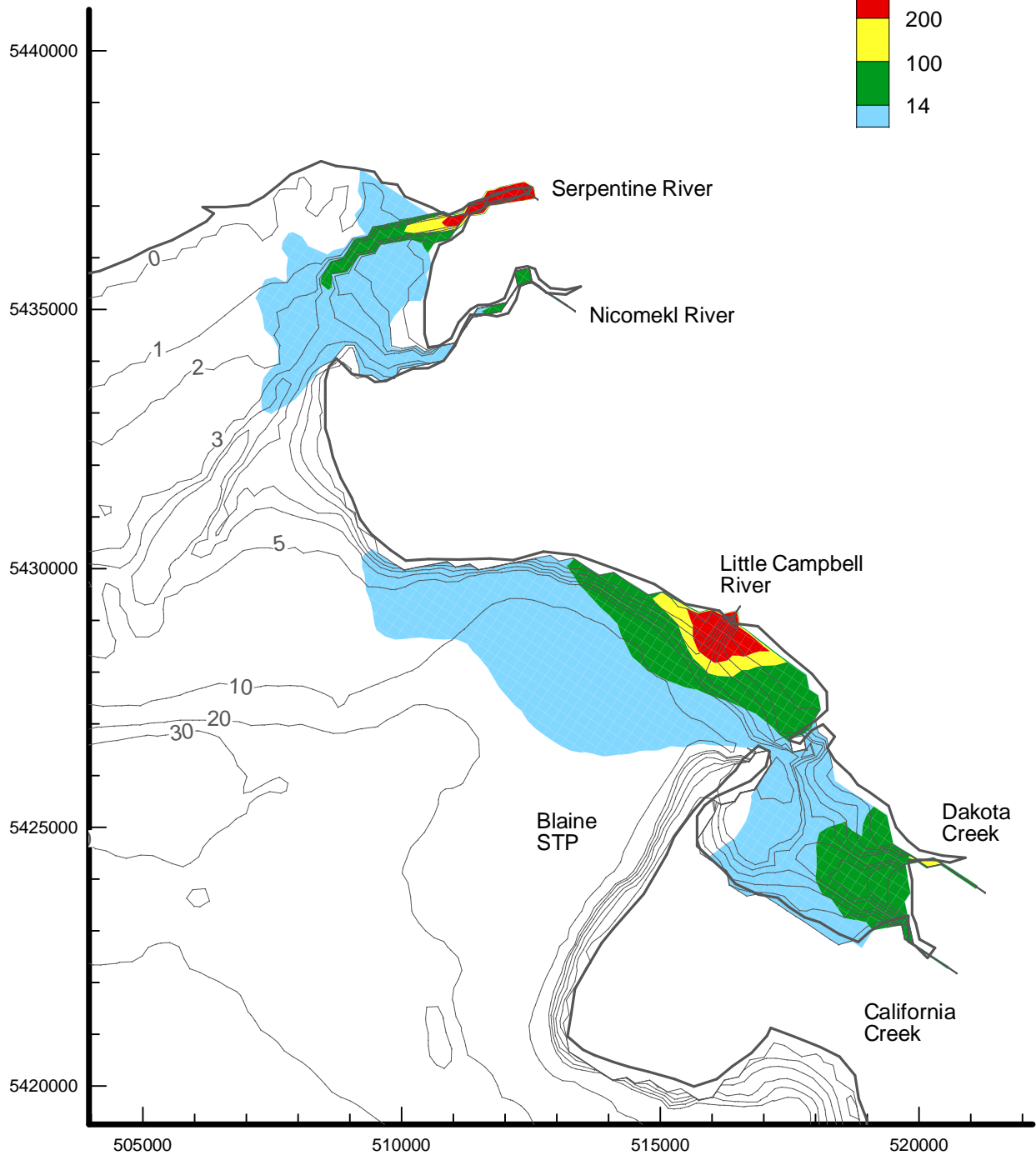
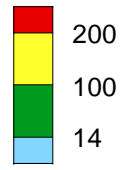
**SEMAHMOO BAY
CIRCULATION STUDY**

**MAXIMUM FECAL COLIFORM CONCENTRATION
FROM CALIFORNIA CREEK**

**FIG.
4.10**

DECEMBER 2001

Fecal coliform concentration (CFU / 100 mL)



HAY & COMPANY CONSULTANTS INC.

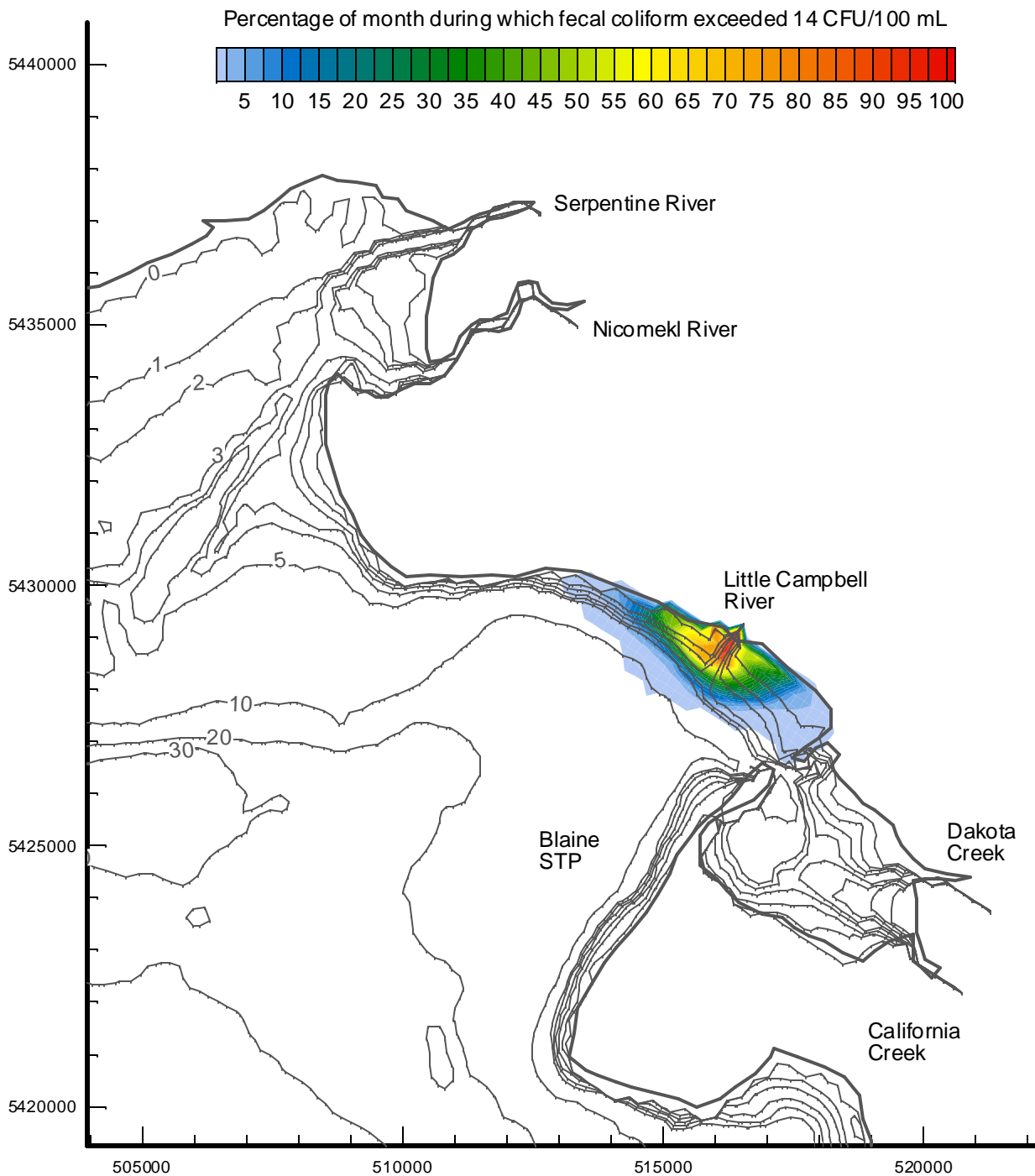
ENVIRONMENT CANADA

SEMAIHMUO BAY
CIRCULATION STUDY

MAXIMUM FECAL COLIFORM CONCENTRATION
FROM ALL SOURCES

FIG.
4.11

DECEMBER 2001



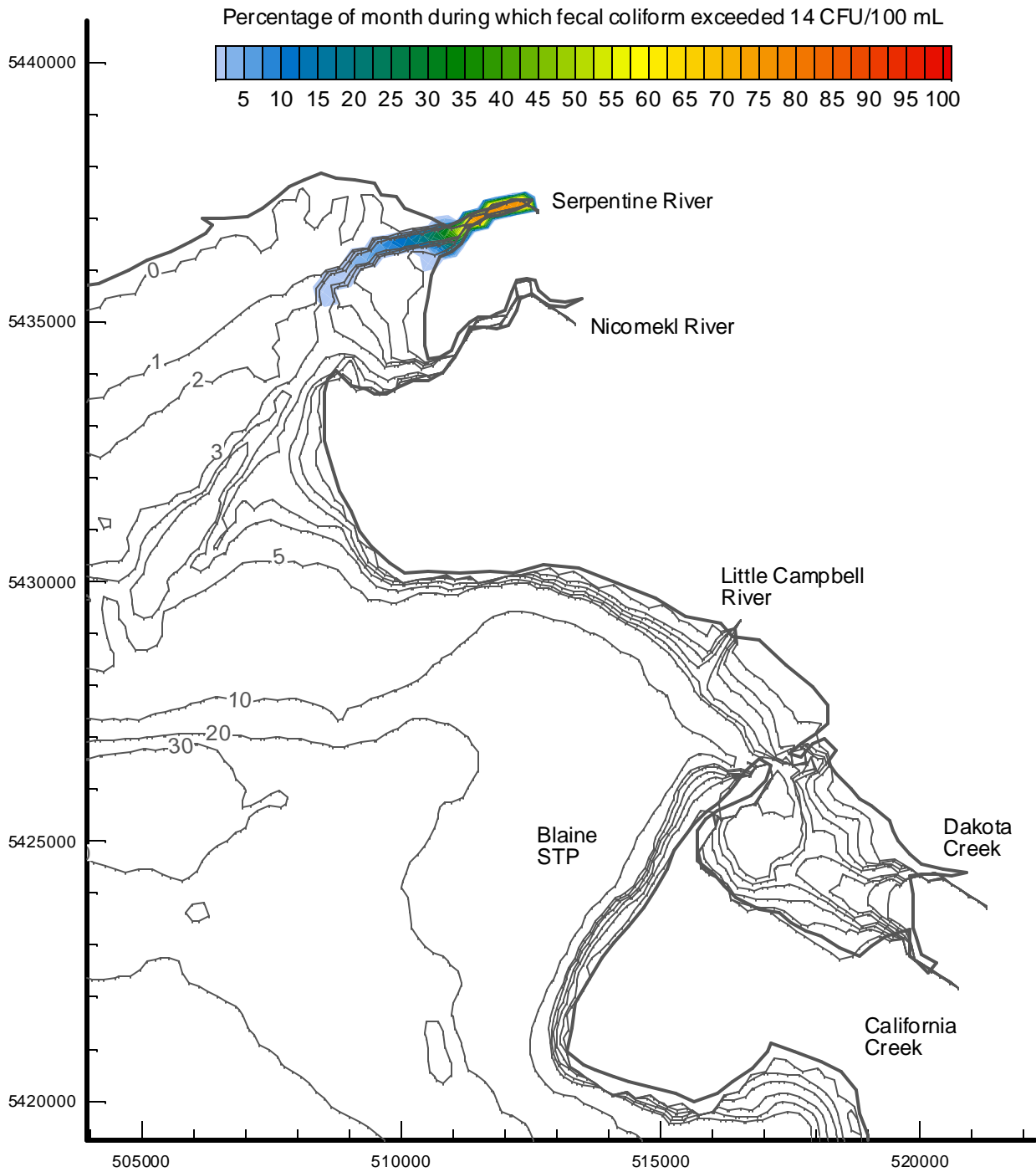
 HAY & COMPANY CONSULTANTS INC.

ENVIRONMENT CANADA
**SEMAIHMUO BAY
CIRCULATION STUDY**

**EXPOSURE TO FECAL COLIFORM
FROM LITTLE CAMPBELL RIVER**

**FIG.
4.12**

DECEMBER 2001



HAY & COMPANY CONSULTANTS INC.

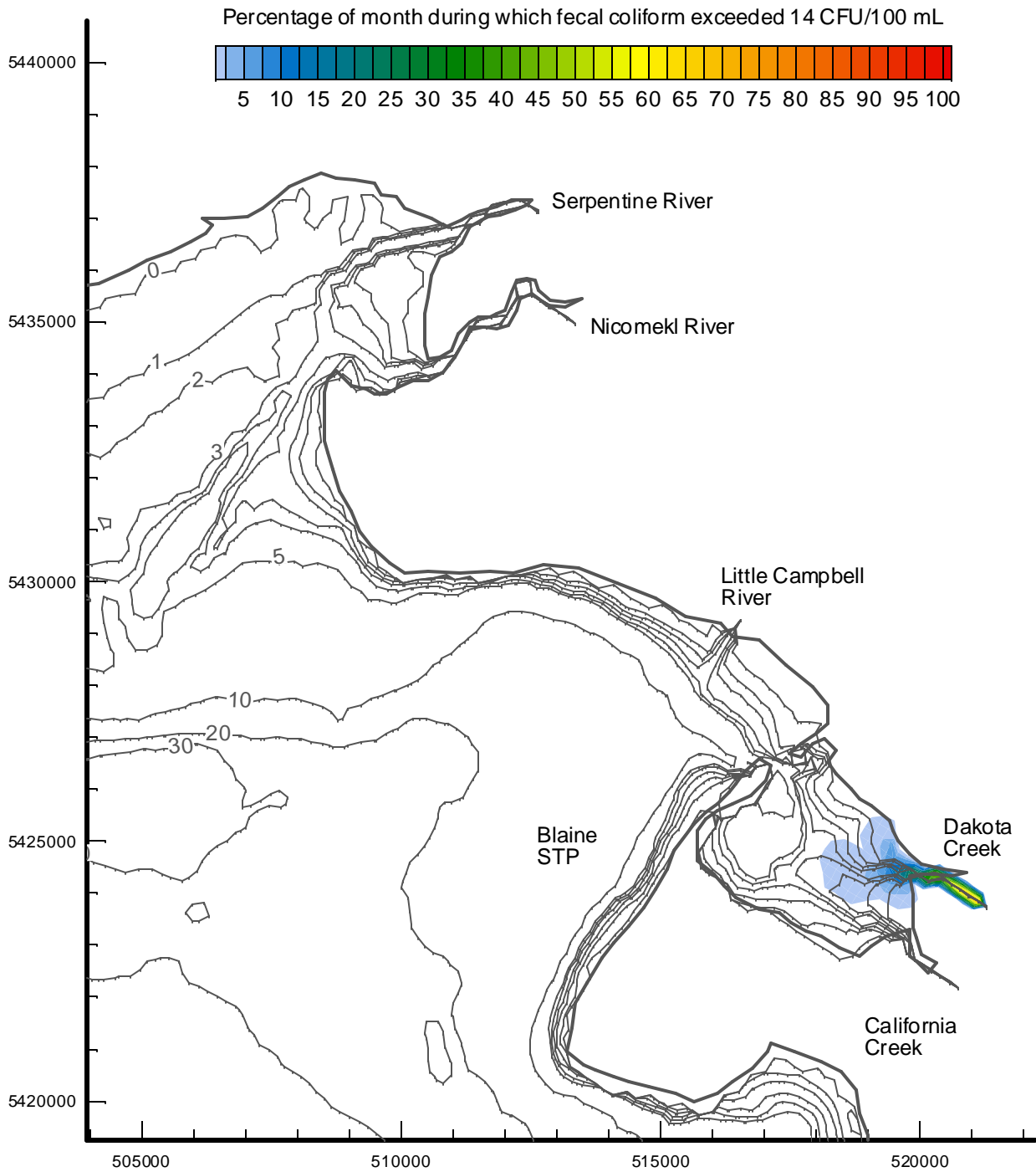
ENVIRONMENT CANADA

**SEMAHMOO BAY
CIRCULATION STUDY**

**EXPOSURE TO FECAL COLIFORM
FROM SERPENTINE RIVER**

**FIG.
4.13**

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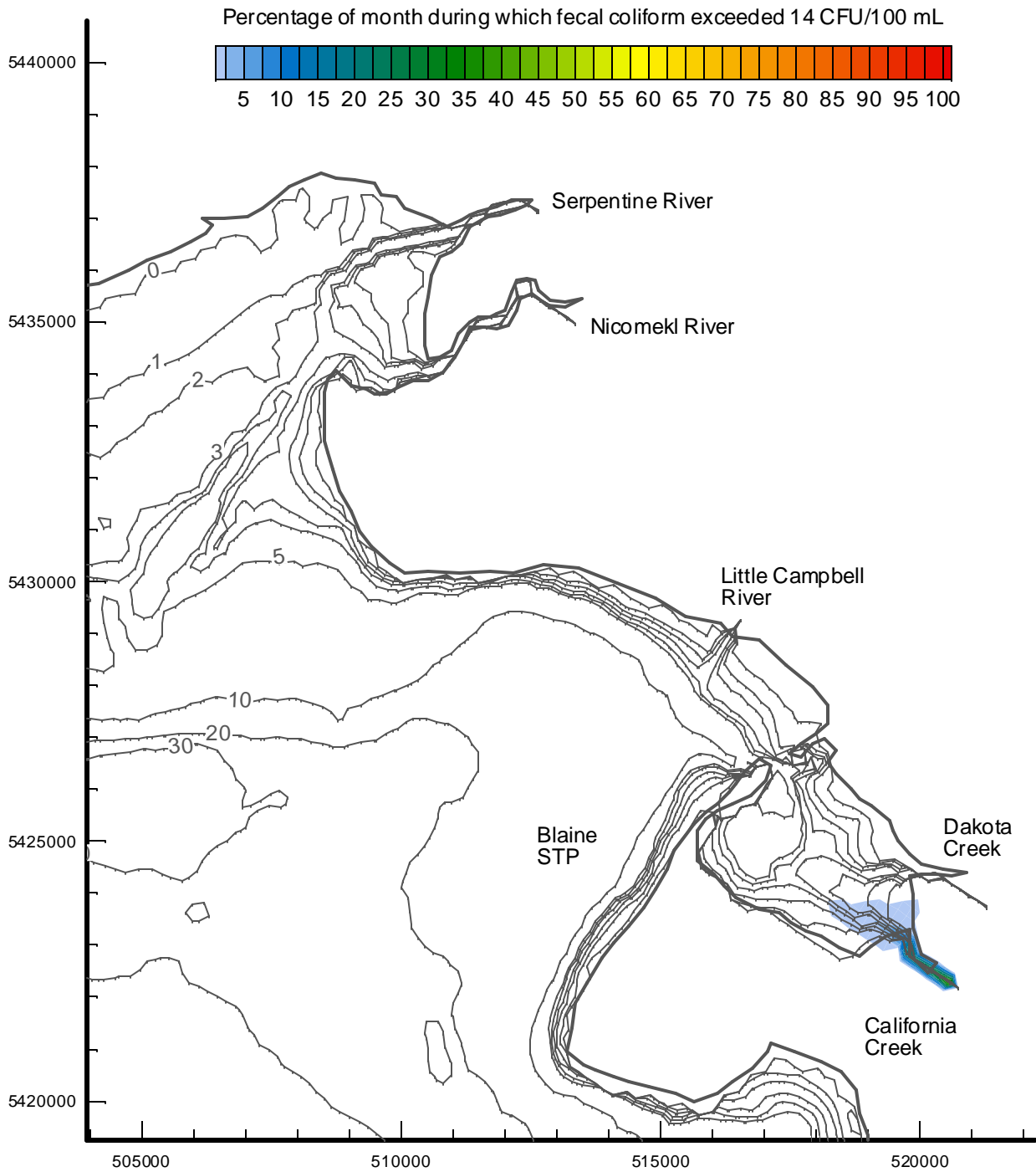
ENVIRONMENT CANADA

SEMIAHMOO BAY
CIRCULATION STUDY

EXPOSURE TO FECAL COLIFORM
FROM DAKOTA CREEK

FIG.
4.14

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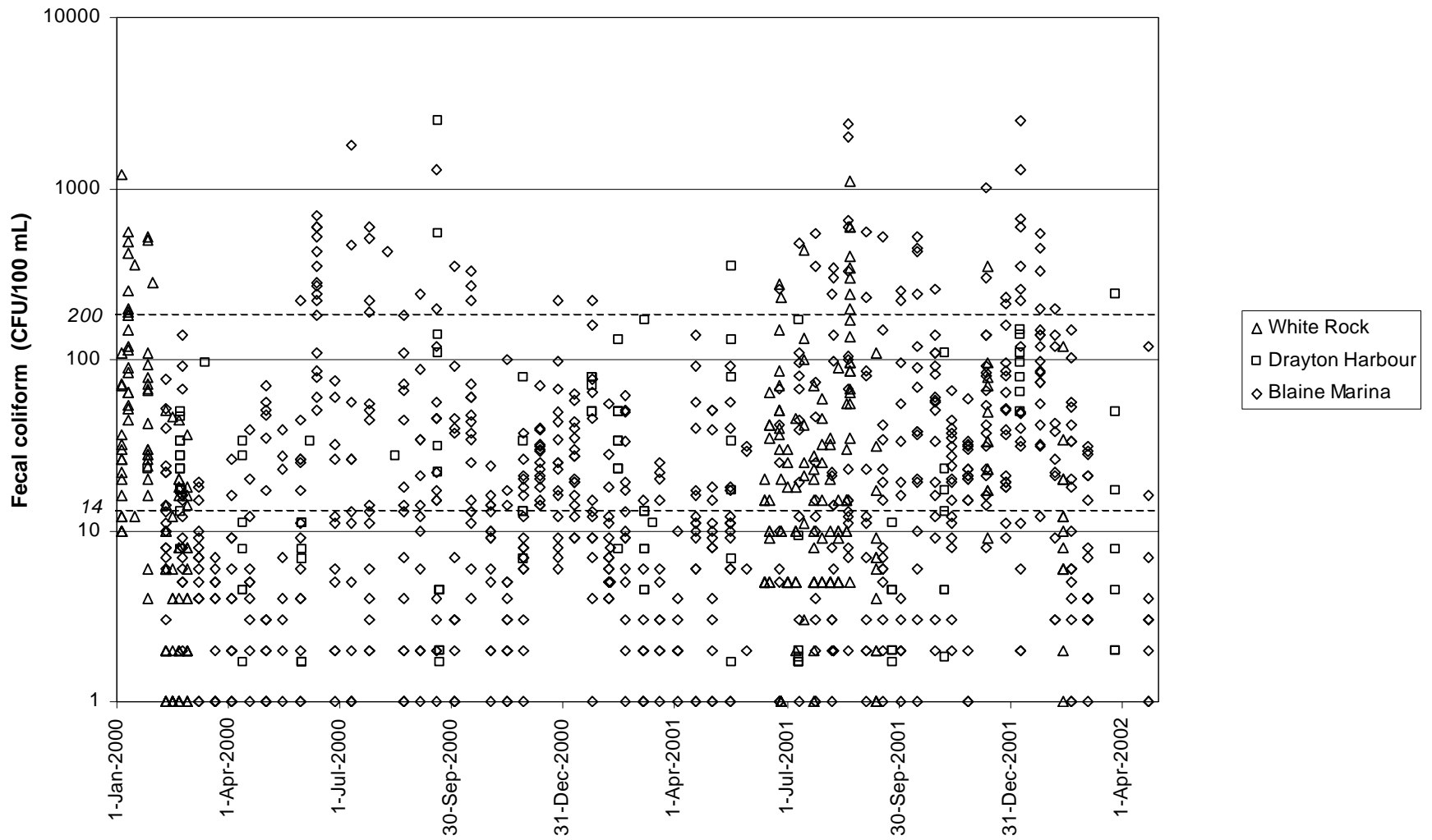
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ENVIRONMENT CANADA

**SEMAHMOO BAY
CIRCULATION STUDY**

**EXPOSURE TO FECAL COLIFORM
FROM CALIFORNIA CREEK**

**FIG.
4.15**



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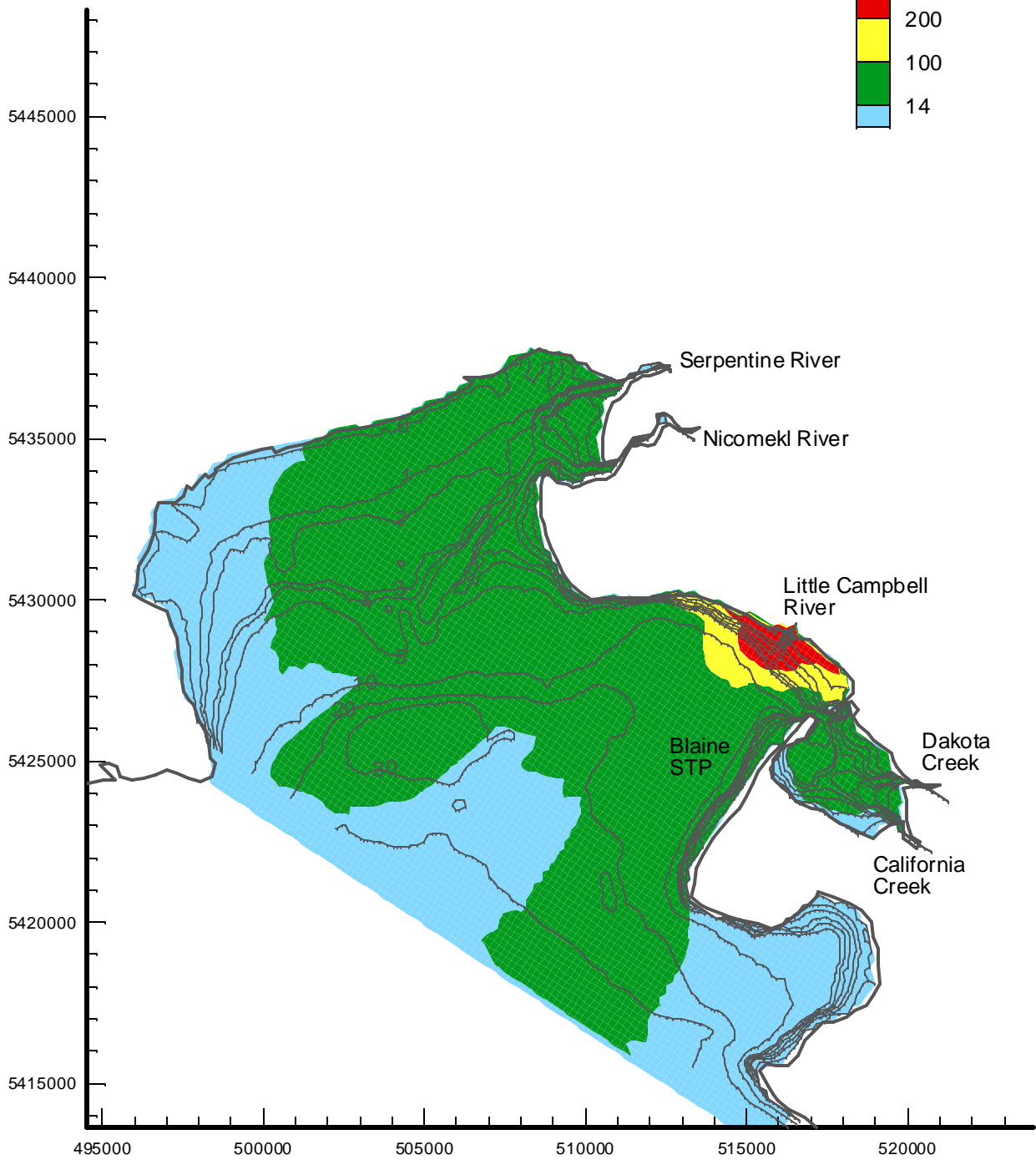
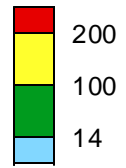
ENVIRONMENT CANADA
**SEMAHMOO BAY
 CIRCULATION STUDY**

**FECAL COLIFORM SAMPLING PROGRAM
 MARINE SITES 2000 - 2002**

FIG.
 4.16

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Fecal coliform concentration (CFU / 100 mL)



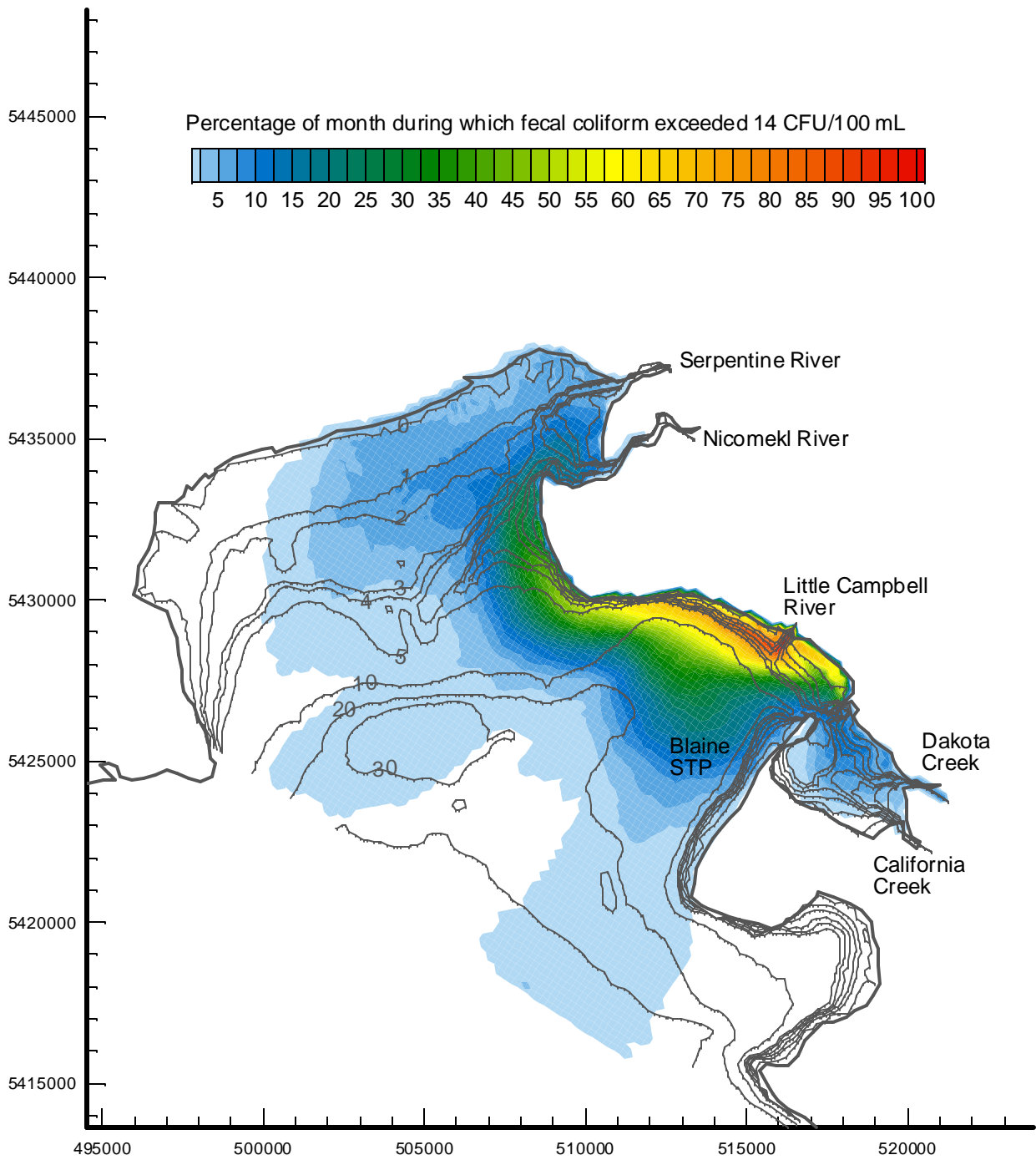
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ENVIRONMENT CANADA
**SEMIAHMOO BAY
CIRCULATION STUDY**

**MAXIMUM FECAL COLIFORM LEVEL
FROM LITTLE CAMPBELL RIVER
(ADJUSTABLE LAYER MODEL)**

**FIG.
6.1**

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ENVIRONMENT CANADA
**SEMAHMOO BAY
CIRCULATION STUDY**

**EXPOSURE TO FECAL COLIFORM
FROM LITTLE CAMPBELL RIVER
(ADJUSTABLE LAYER MODEL)**

**FIG.
6.2**