

A RECONNAISSANCE SURVEY OF
COFFIN LAKE

WATERSHED: BULKLEY RIVER
DATE OF SURVEY: JUNE 24, 1985
FIELD CREW LEADER: SIG HATLEVIK
FIELD ASSISTANT: RON TETREAU

REPORT PREPARED BY: SIG HATLEVIK

REPORT EDITED BY:

(Senior Inventory Technician)

ACCEPTED FOR RELEASE BY: _____

(i/c Inventory Operations)

SC 592

FISHERIES BRANCH
MINISTRY OF ENVIRONMENT

LAKE: COFFIN

SYSTEM NAME: _____

A.S.A.P. REFERENCE NO.: _____

SYSTEM NO.: _____

DATA ON FILE FOR THIS SURVEY

Location _____
 Physical Data _____
 Bench Mark _____
 Terrain Features _____
 Access _____
 Resorts & Campsites _____
 Other Developments _____
 Obstructions and Pollutions _____
 Special Restrictions _____
 Aquatic Plants _____
 Wildlife Observations _____
 Miscellaneous Comments _____
 Lake Drainage _____
 Inlets/Outlets _____
 Water Chemistry _____

Dissolved Oxygen Profile _____
 Temperature Profile _____
 Netting Record _____
 Lake Catch Summary _____
 Fisheries Comments _____
 Individual Fish Data _____
 Fish Preserved _____
 Stomach Analysis _____
 Scale Reading _____
 History of Previous Surveys _____
 Location of Inventory Sites _____
 Photograph Directory _____
 Appendices _____
 Bathymetric Reduction _____
 Contour Map _____

LOCATION ABOUT 14 KM SSE OF TELKWA

Elevation. 2050 ft (625 m) ■ ±

Latitude/ Longitude..... 54° 35' : 126° 56' ■

U.T.M..... ■

Management Unit..... 6-9 -

N.T.S. Map No..... 93 L/10

Drainage OUTLET STREAM → BULKLEY RIVER

PHYSICAL DATA

Lake Drainage Area _____ sq. km
 Water Surface Area _____ sq. ■
 Volume _____ cu. ■
 Area above 6 ■ contour _____ sq. ■
 Flushing Rate _____
 Shoreline Perimeter _____ ■
 Perimeter of _____ Islands _____ ■
 Maximum Depth 5 ft. ■
 Mean Depth _____ ■
 Filtrable Residue (T.D.S.) 74 mg/L
 Secchi Disc 5 ft. ■

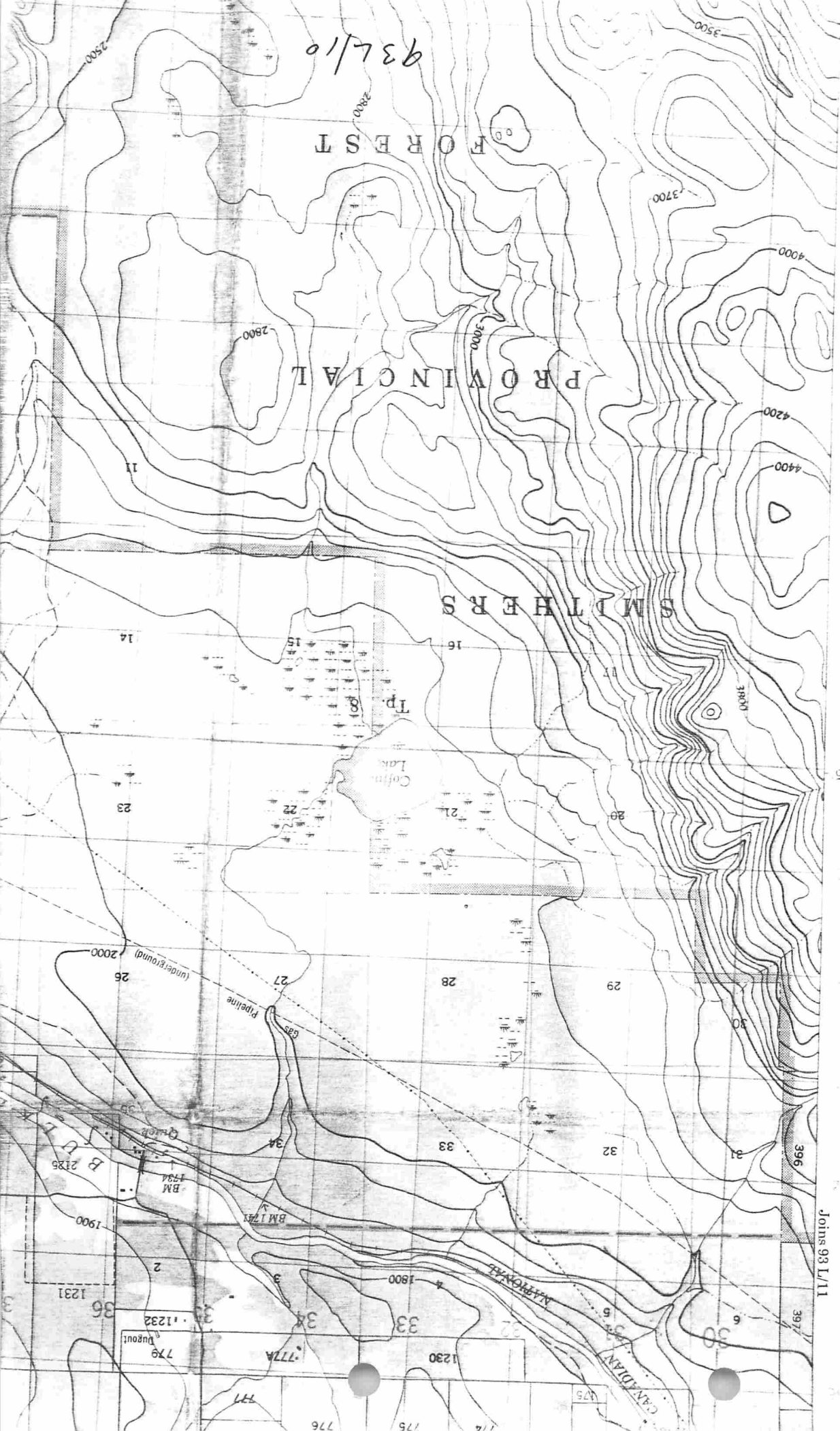
Sounding Device: NOT DONE

Elevation Source: TOPOG. MAP

BENCH MARK (Iron spike, center of red circle) Located _____ ■ above water level at time of survey in a _____ cm diameter _____ tree.

NOT DONE

High water mark: _____ ■ above water level at time of survey.



93L/110

PROVINCIAL FOREST

SMITHERS

SMITHERS

Tp

Colin Lake

Pipeline

(underground)

Gas

CANADIAN NATIONAL

Joins 93 L/11

1231

1232

1233

779

777

776

775

1230

1800

1900

396

397

398

399

400

401

402

403

404

405

406

1900

1794

1793

1792

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LAKE: COPPIN

TERRAIN FEATURES

Immediate Shoreline:

- Bog (floating grass) completely around perimeter
- some logging out south and west ends of lake
- spruce, aspen, birch around edge
- no beaches
- lake access from south end, out of a logging landing
- willows + alders abundant around shoreline

Surrounding Country:

- small mountain ridge to south, remainder of lake flat to rolling terrain.

LAKE: COFFIN

ACCESS Turn south off Hwy 16 at the Quich road.

Directions: Proceed 7.5 km across the Bulkeley River bridge then turn left onto the Walcott road. Drive 5 km, and turn right onto Branch 170 logging road. Proceed for 2 km then

Road Type and Conditions: turn right. Go down the hill for another 2 km then turn right and proceed 1 km to a log - landing and Coffin Lake.

Restrictions:

Good 2 WD logging road, except for landing which may be quite soft in the spring.

RESORTS & CAMPSITES

none

OTHER DEVELOPMENTS

none (active logging area)

OBSTRUCTIONS AND POLLUTIONS

beaver dams on inlet & outlet streams

SPECIAL RESTRICTIONS

shallowness of lake (max. depth 2 meters) could result in fish winter/summer kill

LAKE: COFFIN

AQUATIC PLANTS *F. looting pondweed and clapping leaf pondweed common throughout the lake. Calla near perimeter.*

WILDLIFE OBSERVATIONS

- cow and calf moose seen at north end of lake
- bonaparte gulls
- nesting area for waterfowl, grebes, loons

MISCELLANEOUS COMMENTS

Invertebrates - abundant large gammarus
- green (~~edge~~) sedge
- dragonflies + damselflies
- large leeches
- mayflies

LAKE: COFFIN

LAKE DRAINAGE

General:

- drains north through large swamp to the Bulley River, near Quich bridge
- low gradient
- many debris jams and beaver dams

Major Systems:

Major inlet stream flows north and enters Coffin lake at SW portion.

Minor Systems:

- several inlet streams, all flowing quite full for this time of year, although it did rain for the previous 2 days.

LAKE: COFFIN

LAKE DRAINAGE CONT'D

System Name:

Inlet/Outlet

at bridge crossing

System No.

Site Location:

Channel Width _____ m

Wetted Width 3 m

Max. Depth _____ cm

Avg. Depth 20 cm

Turbidity _____ m/cm

Water temp. 11 °C (3:30)

Stage (flow) MODERATE

Velocity 0.9 m/sec

Slope 1.5 %

Colour SLIGHT TANNALC

Flood Signs (ht/type):

Bed Material:

- finer - 10 %
- gravels - 60 %
- larges - 30 %
- bedrock - — %

Compaction:

~~Banks (form, height, stability):~~ REARING HABITAT

- weir pool at bridge site
- no undercut banks
- no pools
- fast flow, mostly riffles

Comments:

SPAWNING HABITAT

- none in vicinity of lake
- fair ~~at~~ to pool at bridge site
- sharp rocks

LAKE: COFFIN

Limnology Station No. 1061

WATER CHEMISTRY

Date JUNE 24/85 Time 1:30 Air Temperature _____ °C

Wind Velocity _____ km/hr Wind Direction _____ field pH Sfce 7.7
Cloud Cover 1/10 O.C. Surface Condition RIPPLES
Secchi Disc <2 m Water Colour _____ H₂S _____ mg/L

Method(s) Used for field tests: Water Temperature _____
Dissolved Oxygen _____
Air Temperature _____
Field pH _____ H₂S _____

Depth of Bottom 5 ft m Depth of Water Samples _____ m/ _____ m

~~NOT DONE~~

BOTTOM

DEPTH	O ₂ (mg/l)	TEMP (°C)
Surface	7.8	15
0.5		15
1.0	7.8	15 13
1.5	8.0	13
2.0		
2.5		
3.0		
3.5		
4.0		
4.5		
5.0		
5.5		
6.0		
6.5		
7.0		
7.5		

DEPTH (m)	O ₂ (mg/l)	TEMP (°C)
8.0		
8.5		
9.0		
9.5		
10.0		
11.0		
12.0		
13.0		
14.0		
15.0		
16.0		
17.0		
18.0		
19.0		
20.0		
21.0		

DEPTH	O ₂ (mg/l)	TEMP (°C)
22.0		
23.0		
24.0		
25.0		
26.0		
27.0		
28.0		
29.0		
30.0		
31.0		
32.0		
33.0		
34.0		
35.0		

LAKE: COFFIN

WATER CHEMISTRY CONT'D

Limnology Station No: ONE

Equis No: _____

Residue Filtrable 105°C (T.D.S.)
Surface 74 mg/L
_____ mg/L

Specific Conductance
Surface _____ umhos/cm
_____ umhos/cm

Lab pH
Surface 7.6

Method /Agency Used:

Comments: _____

*Graph 102
in file 30 May 1971*

LAKE: COFFIN

NETTING RECORD

Mesh sizes are hung in an experimental order: 25, 76, 51, 89, 38, 64 mm.

NETTING SITE #1 Type _____ Date Set JUNE 24 Time 1.00
Date Lifted 11 25 Time ~~12:30~~ 1.00
Net Dimensions: Length 100 m Depth _____ m
Shallow End Mesh Size _____ mm, Depth _____ m, Substrate _____
Deep End Mesh Size _____ mm, Depth _____ m, Substrate _____

Comments: _____

NETTING SITE #2 Type _____ Date Set _____ Time _____
Date Lifted _____ Time _____
Net Dimensions: Length _____ m Depth _____ m
Shallow End Mesh Size _____ mm, Depth _____ m, Substrate _____
Deep End Mesh Size _____ mm, Depth _____ m, Substrate _____

Comments: _____

NETTING SITE #3 Type _____ Date Set _____ Time _____
Date Lifted _____ Time _____
Net Dimensions: Length _____ m Depth _____ m
Shallow End Mesh Size _____ mm, Depth _____ m, Substrate _____
Deep End Mesh Size _____ mm, Depth _____ m, Substrate _____

Comments: _____

NETTING SITE #4 Type _____ Date Set _____ Time _____
Date Lifted _____ Time _____
Net Dimensions: Length _____ m Depth _____ m
Shallow End Mesh Size _____ mm, Depth _____ m, Substrate _____
Deep End Mesh Size _____ mm, Depth _____ m, Substrate _____

Comments: _____

LAKE: COFFIN

LAKE CATCH SUMMARY

SPECIES	NETTING SITE NO.				ANGLED	OTHER	TOTAL	NUMBER SAMPLED	SCALE SAMPLES NUMBER PRESERVED	SIZE RANGE (cm)
	1	2	3	4						
(COARSE SCALE + LONGHORN) SUCKERS	✓						251			7-40 cm
RED SIDE SHINERS							14			6-10 cm
DOLLY VARDEN							1			132 mm
RAINBOW TROUT							4	4		19-24 cm
CUTTHROAT TMT.							5	5		17-25 cm

Minnow Traps:

Bait _____

#	HOURS	DEPTH(m)	SUBSTRATE	SPECIES

FISHERIES COMMENTS

- appears to be a productive lake
- shallowness could result in winter/summer fish kills
- inlet stream might be observed in winter to see if it is flowing (reportedly, it does); this may prevent winter - kill.

LAKE: _____

FISHERIES COMMENTS **CONT'D**

Outlet Stream - minnow trapping at road crossing.

- 2 GEE traps baited with roe, overnight catch =
 - 9 rainbow trout 63 to 130 ~~mm~~ mm
 - 3 cutthroat trout 103, 104, 109 mm
 - 3 dace 120, 92, 96 mm
 - 1 coho 79 mm

Inlet Stream (major one) bridge crossing

- 2 roe baited minnow traps set overnight
- catch
 - 2 Dolly Varden 100, 180 mm

Minor inlet stream (West of major inlet)

- culvert crossing
- no fish captured
- one shrew though

LAKE: _____

HISTORY OF PREVIOUS SURVEYS

Survey Date



Photo 1 View of Coffin Lake from the approaching crossing road.



Photo 2 Coffin Lake, showing shoreline and aquatic vegetation.



Photo 3 Inlet to Coffin Lake



Photo 4 Breaching beaver dam on inlet stream.



Photo 5 Major inlet to Coffin Lake



Photo 6 Minor inlet to Coffin Lake. It enters the lake west of the major inlet stream

Skeena - Fish Program

ATTN: HATLEVIK, SIG

Site: NOSITE COFFIN LAKE

From :85/06/24:0000

To :85/06/24:0000

Depth Range 0.0 0.0

Tide

Sample State Fresh Water

Sample 85011772

Parameter Description	Analytical Technique	Result	Units
pH	pH Meter	?	pH units
Result 7.6, analyzed outside of optimal time frame.			
Residue Filterable	Gravimetric 105C	74	mg/L
Conductance Specific	Cond. Meter Siebold	74	uS/cm

07-Nov-85

MINISTRY OF ENVIRONMENT
ENVIRONMENTAL LABORATORY
Report for form 00016890

Page- 1

Skeena - Fish Program

ATTN: HATLEVIK, SIG

Site: NOSITE COFFIN LAKE

Submitted by (00000)

Phone No. -
Address (00)

MINISTRY OF ENVIRONMENT
Bag 5000,
Smithers, BC V0J 2N0

Audit Sample ()
Client study reference code ()
Sampling agency code (41)

SEAM comments

TDS FOR LAKE
PRODUCTIVITY

Site (NOSITE) COFFIN LAKE

Sample Adjective ()
Sample State (FW) Fresh Water
Sample Descriptor (GE) Undefined

This form was processed to the computer on 29-OCT-1985 as REGULAR
The cost for analyzing samples for this form is

Routine analysis:	\$	22.80
Special analysis:	\$	0.00

Total	\$	22.80

07-Nov-85

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ENVIRONMENTAL LABORATORY
Report for form 00016890

Page- 2

Skeena - Fish Program

ATTN: HATLEVIK, SIG

Site: NOSITE COFFIN LAKE

From : 85/06/24:0000

To : 85/06/24:0000

Depth Range 0.0 0.0

Tide

Sample State Fresh Water

Sample 85011772

Parameter Description	Analytical Technique	Result	Units
pH Result 7.6, analyzed outside of optimal time frame.	pH Meter	?	pH units
Residue Filterable	Gravimetric 105C	74	mg/L
Conductance Specific	Cond. Meter Siebold	74	uS/cm

07-Nov-85

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ENVIRONMENTAL LABORATORY
Report for form 00016890

Page- 3

Skeena - Fish Program

ATTN: HATLEVIK, SIG

Site: NOSITE COFFIN LAKE

Parameter Description	Sparcode	Media, Field Prep Rec'd by Lab
Conductance Specific	00111160	02 Bottle - poly (1 L) 01 Unfiltered- no preserv'n
Residue Filterable	00071030	02 Bottle - poly (1 L) 01 Unfiltered- no preserv'n
pH	00041220	02 Bottle - poly (1 L) 01 Unfiltered- no preserv'n