ALASKA DEPARTMENT OF FISH AND GAME

DIVISION OF SPORT FISH

WATER ANALYSIS

WATER Quartz

LOCATION

DATE	STATION	TIME	SNOW COVER	ICE COVER	SAMPLE DEPTH	TEMPERATURE WATER	TEMPERATURE AIR	DO	CO_2	pH	TOTAL ALKALI	REMARKS	BY
3-5-68			0"	29"	8'			5.0					
3-6-69			6	31	5'			5.5					
					10'			4.0					
					20'			3.0					
					35'			0.40					
2-6-71			8"	3"	6'			6.0					
12-12-71			10"	36"	1'			11.0					
2-10-72			20"	81"	1.5'			5.2					
4-03-72			25"	105"	1.5'			3.8					

DEFINE LOCATION OF STATIONS ON REVERSE

2/69
FG-208

17500. 710430. 1000. BIRCH 0.0 6 9CAN= 1104 OF 1104 ~~BIRCH LAKE NEARSHORE SOUTH~~

17501. 710430. 900. QUARTZ 0.0 6 9CAN= 1104 OF 1104 QUARTZ LAKE NEARSHORE SOUTH

April 30th

9.	PH	0.7200E 01	UNIT	
9.	TURB HEL	0.2000E 01	PPM	
17.	CHLORIDE	0.6600E 01	MG/L	
17.	AMMONIA	0.1500E 00	MG/L	
1.	D POTASM	0.1400E 02	MG/L	
1.	D SODIUM	0.3340E 01	MG/L	
17.	NITRATE	0.0	MG/L	X
17.	NITRITE	0.5000E-02	MG/L	
17.	TOTALPO4	0.1000E-01	MG/L	A
17.	ORTHOPO4	0.9000E-02	MG/L	
1.	D MAGNES	0.2880E 02	MG/L	
1.	D MANGAN	0.5000E-01	MG/L	K
9.	D BARIUM	0.3660E 03	MG/L	
9.	SULFATE	0.2000E 01	MG/L	
1.	T ORG C	0.8070E 02	MG/L	

80.7 mg/L.

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WATER Quartz Lake

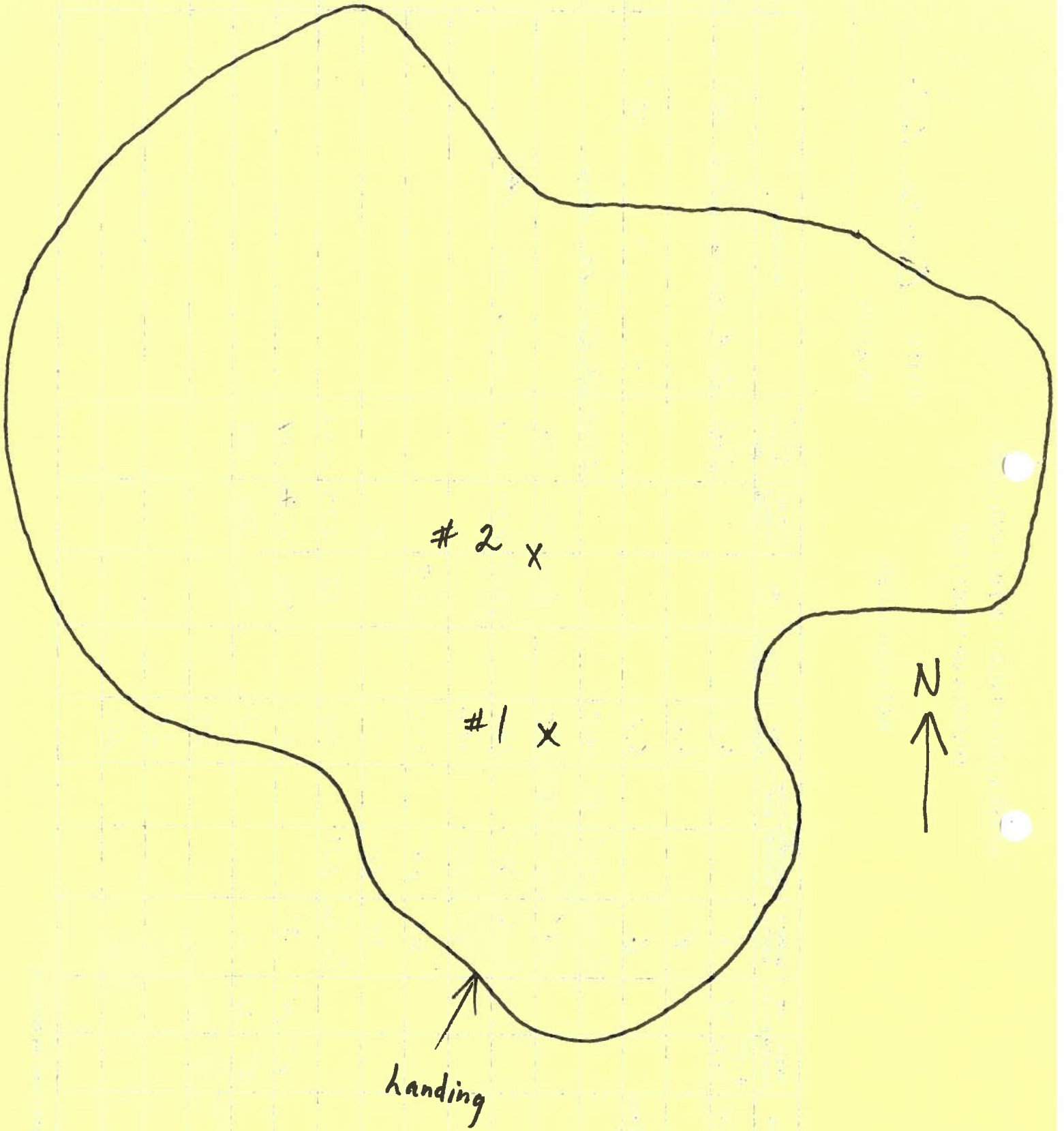
WATER ANALYSIS

LOCATION

DATE	STATION	TIME	SNOW COVER	ICE COVER	SAMPLE DEPTH	TEMPERATURE F° WATER	TEMPERATURE F° AIR	DO ppm	CO_2 ppm	pH	TOTAL ALKALI ppm	Total Hdness ppm	REMARKS	BY
2/6/71	1 *	3 PM	6-8" 100%	31"	8'			6.0				Water	depth approximately 14'	DDP
"	"				4'			6.0						"
"	2	3:15 PM			6'			6.0				"	" " " 10'	"
6/8/71					Surface	57°	80°	14.0				Light	phytoplankton bloom	"
6/18/71					28'	(Surface 61°)	58°	11.0		9.0	255	238		"
7/6/71					Surface	71°		13.0		8.7	255	221	sechii disc = 14'	"
"					10'	68°		13.0						"
"					25'	64°		13.0		8.7				"
"					34'	60°		9.0						"
8/31/71					Surface	62°		11.0		8.8	225	222		"
12/13/71			4"	14"	3'			11.0		9.0	274	291		"
2/10/72			8"	32"	5'			5.2		8.0	325	308		
4/3/72	250 YDS OF LANDING DEPTH - 25'	2:30 - 5PM	100% 10"	41"	0'			2.8						
	"		"	"	5'			2.4						
	"		"	"	20'			2.0						

* DEFINE LOCATION OF STATIONS ON REVERSE

2/69
FG-208


#2
#1
N
landing

ALASKA DEPARTMENT OF FISH AND GAME

DIVISION OF SPORT FISH

WATER Quartz Lk.

WATER ANALYSIS

LOCATION _____

DATE	STATION	TIME	SNOW COVER	ICE COVER	SAMPLE DEPTH	TEMPERATURE WATER	TEMPERATURE AIR	DO	CO_2	pH	TOTAL ALKALI	T.H.	REMARKS	BY
4/3/72	1 (CABIN @ 150 yds)		100% 10"	41"	0'			3.8			224.9			
	"		"	"	5'			4.2						
	"		"	"	20'			0.8						
	3 BK #3		"	"	5'			1.6						
	4 BK #3		"	"	5'			1.4						
	5 1/2 WAY BETWEEN LANDING & CABIN ON E. SHORE		"	"	5' IN 25'			3.8						
6/12/72					SURFACE	64°	78°	10.0		9.0	256.5	222.3	SECCHI DISC: 10' 5"	
					20'	57°		9.0		8.5				
8/15/72					SURFACE	64°		8.0		9.0	239.4	205.2	13.5' SECCHI DISC	
					20'	64°		6.0		8.7	136.8	205.2		
9/19/72					SURFACE	47°		9.0		9.0	222.3	256.5		
2/27/73			10"	34"	~~Depth~~ 5'			6.0		8.5				
					10'			4.8						
					15'			3.4						
3/28/73		(crystallized)	(100%) 4-6"	44"	Surface			3.8					100 yds east	
				Clear										

DEFINE LOCATION OF STATIONS ON REVERSE

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FG-208

ALASKA DEPARTMENT OF FISH AND GAME

DIVISION OF SPORT FISH

WATER Quartz

WATER ANALYSIS

LOCATION

DATE	STATION	TIME	SNOW COVER	ICE COVER	SAMPLE DEPTH	TEMPERATURE WATER	TEMPERATURE AIR	DO	CO_2	pH	TOTAL ALKALI (ppm)	T. Hdness	REMARKS	BY
6/11/73					Surface	54°F	64°F	9.0		9.0	238	238		
6/19/73					Surface	17.5°C		10.0					secchi disc = 15'	
					5'	17.5								
					10'	17.5								
					15'	16.5								
					20'	15°								
					25'	14°C								
					30' (in 32')	14°C		9.0		8.7				
7/18/73					Surface	66°F		10.0		9.0	221	221	secchi disc = 11'	
					5	66								
					10	66								
					15	66								
					20	63		10.0						
					30 (in 32)	58		7.0						

DEFINE LOCATION OF STATIONS ON REVERSE

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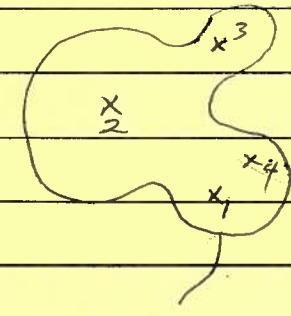
WATER Quartz

WATER ANALYSIS

LOCATION

-ppm-

DATE	STATION	TIME	SNOW COVER	ICE COVER	SAMPLE DEPTH	TEMPERATURE WATER	TEMPERATURE AIR	DO	CO_2	pH	TOTAL ALKALI	T. Hdness.	REMARKS	BY
8/8/73					Surface	64°F		9.0		9.0	222	222		
					5'	63								
					10'	63								
					15'	63								
					20	63								
					25/in 28	60								
					30/in 37	58		3.0						
4/3/75	1				2M			2.6		8.0	340	323		
	2				1.M			3.C	40±					
	3				1.M			3.6						
	4				2M			3.8						



DEFINE LOCATION OF STATIONS ON REVERSE

8.5 239

2/69
FG-208

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CENTRAL LABORATORY, SALT LAKE CITY, UTAH

PROVISIONAL RECORDS SUBJECT TO REVISION

WATER QUALITY ANALYSIS
LAB ID # 157045 RECORD # 19301

SAMPLE LOCATION: QUARTZ LK NR DELTA JCT
STATION ID: 641250145491000 LAT.LONG.SEQ.: 641250 1454910 00
DATE OF COLLECTION: BEGIN--750529 END-- TIME--1215
COUNTY CODE: 090 PROJECT IDENTIFICATION: 78
DATA TYPE: 2 SOURCE: LAKE OR RESERVOIR GEOLOGIC UNIT:
COMMENTS:
BOTTLES F 5 FIELD VALUE USED FOR PH BICARB AND COND

ALK,TOT (AS CACO3)	MG/L		218	NITROGEN TOT ORG N	MG/L		2.8
ALUMINUM TOTAL	UG/L	<	10	NITROGEN TOTKJD AS N	MG/L		2.8
BICARBONATE	MG/L		266	NO2 + NO3 AS N TOT	MG/L		0.02
B ON TOTAL	UG/L		40	NO2+NO3 AS N DISS	MG/L		0.02
CALCIUM DISS	MG/L		27	OXYGEN DISSOLVED	MG/L		10
CARBON TOT ORGANIC	MG/L		26	PH			8..
CARBONATE	MG/L		0	PH LAB			8.2
CHLORIDE DISS	MG/L		6.1	PHOS ORTHO DIS AS P	MG/L		0.00
COBALT TOTAL	UG/L	<	50	PHOSPHATE DIS ORTHO	MG/L		0.00
COLOR			5	PHOSPHORUS TOT AS P	MG/L		0.01
CONDUCTIVITY			400	POTASSIUM DISS	MG/L		16
CONDUCTIVITY LAB			410	RESIDUE DIS CALC SUM	MG/L		227
COPPER TOTAL	UG/L		10	RESIDUE DIS TON/AFT			0.36
DEPTH(FT.FR.SURFACE)			6.0	RESIDUE DIS TON/DAY			.7210
FLUORIDE DISS	MG/L		0.6	RESIDUE DIS 180C	MG/L		267
HARDNESS NONCARB	MG/L		0	SAR			.0.3
HARDNESS TOTAL	MG/L		200	SILICA DISSOLVED	MG/L		.0.8
IRON DISSOLVED	UG/L		60	SODIUM DISS	MG/L		11
MAGNESIUM DISS	MG/L		32	SODIUM PERCENT			10
N GANESE DISSOLVED	UG/L		10	STREAMFLOW(CFS)-INST			9999
MOLYBDENUM TOTAL	UG/L		0	SULFATE DISS	MG/L		2.
NITROGEN NH4 ASN TOT	MG/L		0.04	VANADIUM TOTAL		DETR.	DELET...
NITROGEN TOT AS N	MG/L		2.8	WATER TEMP (DEG C)			9.5
NITROGEN TOT AS NO3	MG/L		12	ZINC TOTAL	UG/L		0

CATIONS

	(MG/L)	(MEQ/L)
CALCIUM DISS	27	1.348
MAGNESIUM DISS	32	2.633
POTASSIUM DISS	16	0.410
SODIUM DISS	11	0.479
TOTAL		4.867

ANIONS

	(MG/L)	(MEQ/L
BICARBONATE	266	4.36
CARBONATE	0	0.00
CHLORIDE DISS	6.1	0.17
FLUORIDE DISS	0.6	0.03
SULFATE DISS	2.5	0.05
NO2+NO3 AS N D	0.02	0.00
TOTAL		4.61

PERCENT DIFFERENCE = 2.64

Mean depth = 10.8
Conductivity = 277

MEI = 34.9

Quartz

1-15-80

D.O. near shore 8 ppm
mid L. 9 " @ 2M
7 " @ 5M

in 9M depth

Snow drifts 4-15"
ice = 26"

7-19-80

W.T. = 21°C @ Sur.
A.T. = 27°C
pH = 9.0
T. Alk. - 291 ppm
T. Hdness - 257 "
D.O. @ Sur. = 10 ppm
@ 8M = 8.0 "

Quartz Lake

1-20-82 Snow 100% 2" to 2' drifted

Ice Clean

(75 yds out and 150 yds west of ramp)

D.O. @ 1M in 3M 6 ppm

pH = 9.0

T. Alk. = 410 ppm (done twice)

T. Hdness = 325

Cond. = 290 micro mho @ Sur.

D.O. @ 5M in 6M = 4.0 ppm (250 yds out)

" 1M in 6M = 6.0 ppm

3-10-82 Snow 100% 6-12"

Ice clean 44" ±

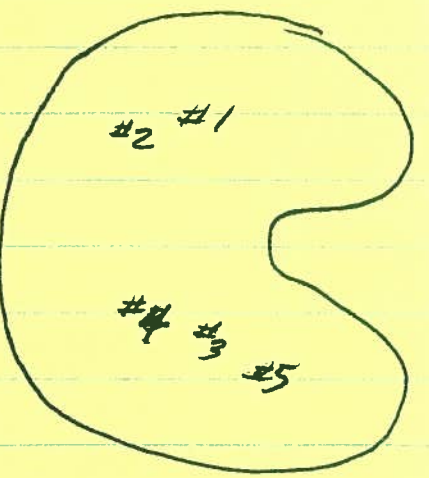
#1 D.O. @ Sur. = 2.0 ppm in 4.7M

@ 3M = 1.6 "

#2 " " 1M = 2.2 "

#3 " " Sur = 6.0 "

" " 4M = 2.8 "



3-17-82 #4 " " 1.5 = 3.2 in 8'

#5 " " 1.5 = 4.0 in 30'

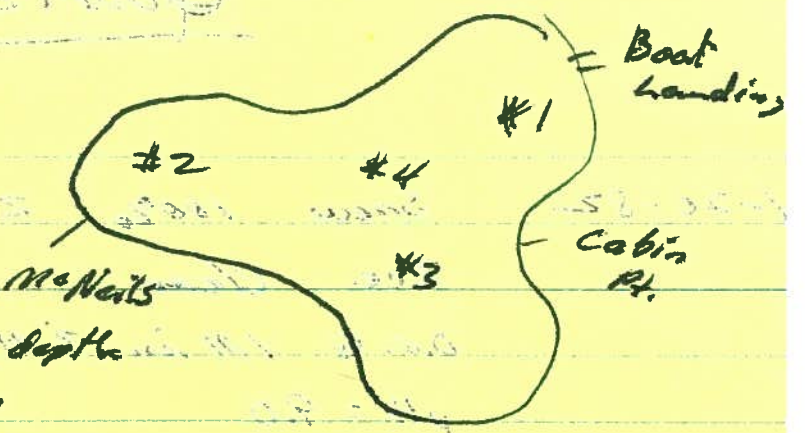
4-20-82 Air temp. = 30°F, 2" fresh snow

Snow 2"-18" 100%, Ice = 44" Clean

W.T. = 0 °C

(OVER)

4-20-82 (cont.)



#1 D.O. @ 1½ M = 2.0 in 7 M depth
#2 " " = 1.2 " 6 M
#3 " " = 3.2 " 2½ M
#4 " " = 3.8 " 10½ M