

MINISTRY OF INDIA AFFAIRS
RECEIVED

Anchorage Ala
Feb. 7th 1964

Ralph Donelson
Const Supt.
Anchorage Alaska

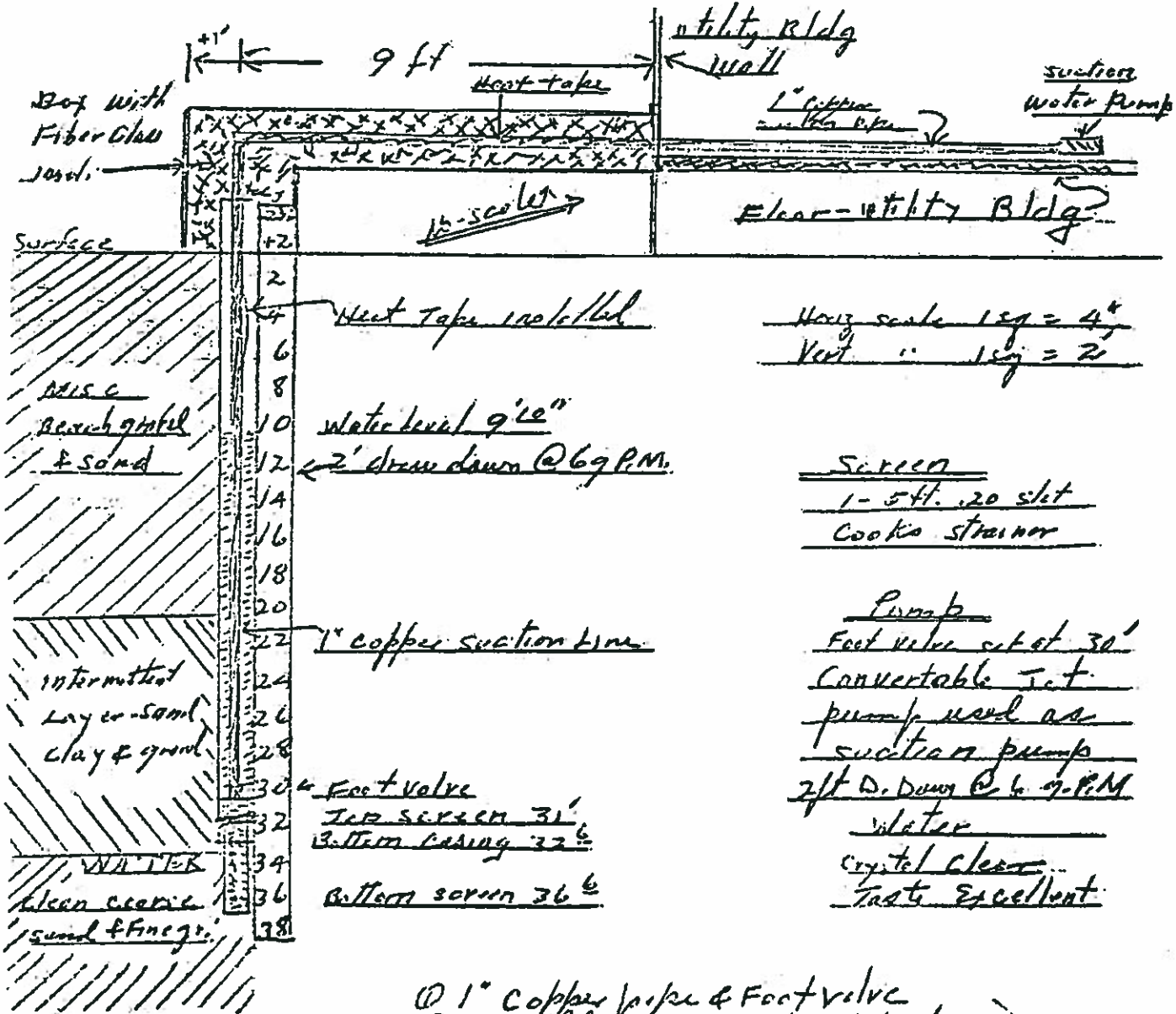
FEB 12 1964

BRANCH OF
PLANT DESIGN & CONSTRUCTION

3050

Tununak Water Well PD4C

Made 11/19/63 12/4/63 (Bor. H. to Tununak)
Drilling order 104-12/13/64



Horiz scale 1 sq = 4'
Vert " 1 sq = 2'

Screen
1-5 ft. 20 slit
Cookie strainer

Pump
Foot valve set at 30'
Convertible T.T.
pump used as
suction pump
2 ft D. Down @ 6-9 P.M.
water
crystal clear
Taste Excellent

① 1" Copper pipe & Foot Valve
② Insulating Box with Fiberglass
③ Heat Tapes
were installed by school janitor,

RECEIVED
 JAN 20 1967
 AGENCY OF

WELL DRILLING DESIGNED & CONSTRUCTION

PROJECT NO: ⁰¹⁰⁻⁰¹⁻³⁰ 63-30 TITLE: Tununak, Alaska

LOCATION: Tununak

CONTRACTOR: Compton & Prince - Drillers TYPE OF RIG: Cable Tool

DATE	START DEPTH - FEET	STOP DEPTH - FEET	DEPTH TO WATER	SAMPLE CLASSIFICATION
11/19/66	15	17		Moving Rig from Bethel & setting up at Tununak
12/4	0	20'	-	Reach gravel (assumed since drillers did not log)
12/5	20	36'	9'	layers of clay & gravel - Hit water at 33'
12/6				Pumped 6 gal. per min. - 5 hrs. - 2 1/2 ft draw down
12/7				Pumped 6 gal per min for 16 hrs.
12/8				Sunday - storm blew Rig over.
12/9				straightened up Rig after storm
12/10				set screen & started to develop well -
12/11	12, 13			sustained production test at 6 gal per min -

MATERIAL LEFT IN WELL

SECTION	OPENING	DIAM.	LENGTH - FEET	MATERIAL
DRIVE SHAFT	20	4"	5 ft.	Brass Drill
PIPE COLLARS		4"	26'	

TEST OF WELL

DATE	YIELD - GPM	DEPTH - FT.	REMARKS
12/13	6	11 ft	2 ft Draw down

12031

BUREAU OF INDIAN AFFAIRS

RECEIVED

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER ANALYSIS

MAR 18 1964

2GW

BRANCH OF
PLANT DESIGN & CONSTRUCTION

Location Bureau of Indian Affairs @ Tununak, Alaska County _____
 Source _____ Depth (ft) _____ Diam (in.) _____
 Cased to (ft) _____ Date drilled _____ Point of coll. _____
 Owner _____
 Treatment _____ Use _____
 WBF _____ WL _____ Yield _____
 Temp (°F) _____ Appear. when coll. _____
 Collected December 13, 1963 By Sam Gotten
 Remarks _____

	ppm	epm		ppm	epm
Silica (SiO ₂)	9.8		Bicarbonate (HCO ₃)	70	1.14
Aluminum (Al)			Carbonate (CO ₃)		
Iron (Fe) (dis)	0.05				
Manganese (Mn)	0.05		Sulfate (SO ₄)	5.0	0.10
			Chloride (Cl)	15	0.42
			Fluoride (F)	0.2	0.01
Calcium (Ca)	9.2	0.46			
Magnesium (Mg)	4.6	0.38	Nitrate (NO ₃)	0.3	0.01
Sodium (Na)	17	0.73			
Potassium (K)	2.1	0.05			
Total		1.62	Total		1.68

	ppm		
		Specific conductance (micromhos at 25° C)	169
Dissolved solids:		pH	6.8
Calculated	97	Color	-
Residue on evaporation at 180° C			
Hardness as CaCO ₃	42		
Noncarbonate	-		
Alkalinity as CaCO ₃	57		

No. Col 7921

Field No.

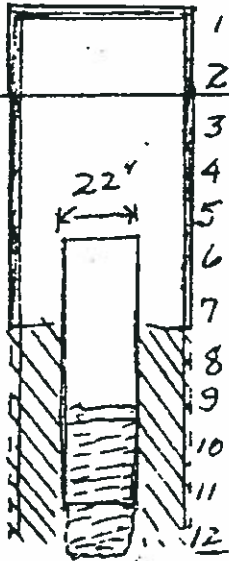
Project

M. M. Custard
Const. Supt.
Fairbanks Alaska

Bethel Alaska
2/23/63

J.H.D.

TUNUNAK - WATER WELL



1
2 surface

3

4

5

6

7

8

9

10

11

12

Static level 8' 9"
At 400 g.p.h.
pumping level 9' 11 1/2"
Tests were made
with Temp. Pump
set-up.

Permanent Pump test
were made at 800 g.p.h.
This was too fast

The cut-in should
be checked to 500 g.p.h.
or less.

a weekly check
should be made
on static water level
and records kept

The 1/2 H.P. Jet pump
was set up on a 2 pipe set.
This was abandoned due
Lack of proper seals for
pipe on head.

The pump was converted
to straight suction, using
only one pipe with foot valve
in well.

The Pump motor was
changed from 110v to 220v
Heat cables were checked
out O.K.

The Low-water cut-off
was set to pump ± 3000 gal
when cut in.

This was changed to pump
 ± 500 gal. when cut in.

All material
Beach gravel
& Sand
Steel Cylinder
22" Diam.
6' Long -
Wood Chipping

This cut-in change results in the following.

1. ± 4000 gal storage at all times - Cost Five or Drank down
2. Frequent pumping - less change of Freezing
3. Less drain on well at any one time.

The above tests and changes were personally
made By Robt. Garbroth (Const. Supt.) in my
presence.

Water sample sent
to Palmer Alaska
Water "hard" But test good

Sam J. Cotton

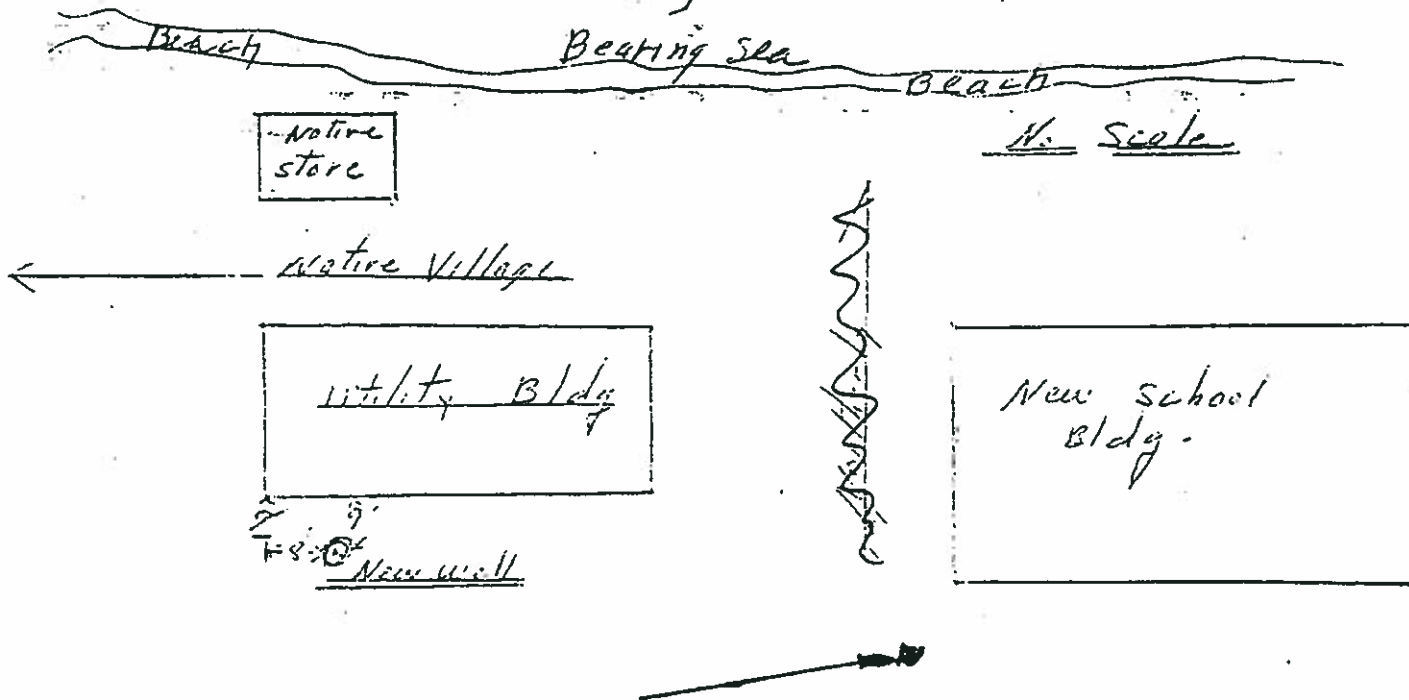
Drill - Foreman

Ralph W. Donelson
Contract Surveyor
Chugach Alaska

Anchorage, Alaska
Feb. 7th, 1964

Tonunak Water Well PDRC

Vicinity Sketch



No. Scale

Ralph W. Donelson
Contract Surveyor

UNITED STATES
 DEPARTMENT OF INTERIOR
 BUREAU OF INDIAN AFFAIRS
 PROJECT No. 801
 TUNUNAK SCHOOL 41
 TUNUNAK ALASKA
 SHEET
 OF
 SITE PLAN
 PROJECT
 ARCH. - GEORGE H. HARRIS
 CIVIL ENGINEER
 S.W. ALASKA



SCALE 1" = 50'

4+00
 BASE LINE N-22°30' E

