

STATE OF ALASKA 24962 DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINING, LAND & WATER Alaska Hydrologic Survey

WATER WELL LOG Revised 08/18/2016

Drilling Start	ed:/		eted: 8 / 18 / 1999 Pump Install://
City/Borough	Subdivision	Block	Lot Property Owner Name & Address
Lower Kuskokwim REAA			CITY OF BETHEL ,
Well location: Latitude 60.		•	Longitude -161.7825999999997
Meridian S Towns	ship <u>008N</u> Range <u>071\</u>	V Section	n <u>08</u> , <u>SE</u> <u>1/4 of <u>NE</u> <u>1/4 of <u>SE</u> <u>1/4 of <u>SW</u> <u>1/4</u></u></u></u>
BOREHOLE DATA: (from g Suggest T.M. Hanna's hydrog https://my.ngwa.org/NC Produ	eologic classification s uct?id=a185000000BYul C	epth	Drilling method: ☐Air rotary, ☐Cable tool, ☐Other ☐Well use: ☐Public supply, ☐Domestic, ☐Reinjection, ☐Hydrofracking ☐Commercial, ☐Observation/Monitoring, ☐Test/Exploratory, ☐Cooling, ☐Irrigation/Agriculture, ☐Grounding, ☐Recharge/Aquifer Storage,
	<u>From</u>	<u>To</u>	1 <u> </u>
			☐ Heating, ☐ Geothermal Exploration, ☐ Other
			Fluids used:ft Casing stickup:ft
			Casing type: inches
			Casing diameter: inches Casing depth: 451 ft Liner type: Depth: ft Diameter:inches
		+	Note: CASE TO 451 FT, SCREEN TO 496 FT. FROZEN TO 412 FT
			Well intake opening type: Open end, Open hole, Other screened
			Screen type:, Screen mesh size:
			Screen start:ft, Screen stop:ft, Perforated Yes No
			Perforation description: Perf from: ft, Perf
			to:ft, Perf from: ft, Perf to:ft
			Gravel packed ☐Yes ■ No Gravel start: ft , Gravel stop: ft
			Note:
			Static water (from top of casing): 10 ft on/ Artesian well
		_	Pumping level & yield: feet after hours at 410 _ gpm
			Method of testing:
			Recovery rate: gpm
			Grout type: Volume
			Depth: Fromft, Toft
Include description or sketch of buildings, etc.):	well location (include ro	ad names,	Final pump intake depth: ft Model:
bullulings, etc.).			Pump size: hp Brand name:
			Was well disinfected upon completion? ☐ Yes ■ No
			Method of disinfection:
			Was water quality tested? Yes No
			Water quality parameters tested:
			Well driller name: .WAYNE, WES!BERG
			Company name: M-W DRILLING
		•	Mailing address: PO BOX 110378
		North	City: <u>ANCHORAGE</u> State: <u>AK</u> Zip: <u>99511</u> Phone number: (<u>907</u>) <u>945</u> - <u>3287</u>
AS 41.08.020(b)(4) and AAC 1 copy of the well log be submitted.			Driller's signature:
Resources within 45 days of v	vell completion. Well lo	gs may	Date:/
be submitted using the online variable at:	well log reporting system		Anchorage Municipal Code 15.55.060(I) and North Pole Ordinance 13.32.030(D) require
https://dnr.alaska.gov/we	elts/		that a copy of this well log be submitted to the Development Services Department/City within 30 days of well completion.
OR email electronic well logs to			City Permit Number: Date of Issue:/
dnr.water.reports@alask	a.gov		Parcel Identification Number:

M-W DRILLING, Inc.
P.O. Box 110378 ● 10330 Old Seward Highway
(907) 349-8535
ANCHORAGE, ALASKA 99511

DRILLING LOG

Well Owner BETHE	L, CITY OF	Use of WellPUBLIC 7
Location (address	of: Township, Range, Section, if known; or distance m	nain road
CITY SURDI	IVISION WATER TREATMENT FACILITY, WELL	NO. 1
— BETHEL, A		
Size of casing 10"	Depth of Hole 500 feet Cased te 50.69	_feet
Static water level 10	ft. x(above) (below) land surface. Finish of well (check one) open end ();
Screen (X);	Perforated ().	
Describe screen on	(perforation 0" TELESCOPING, 304SS: 0.010" SLOT, 4	196.21'TO 457.22',8" BLANK
	gallons per (hour) (minute) for 441.19 hours	withft.
of drawdown from	AS BUILT NOTES: 1) 43° OF 14° 2) 14" HOLE D	'SURFACE CASING. DRILLED TO 385' ROUTED WITH BENTONITE CHIPS
	WELL LOG	
Depth in feet from ground surface	Give details of formations penetrated, size of materi	al, color and hardness
0_то_2	CASTING STICK UP	
2TO26	SAND: PROWN, STLITY, FROZEN	
_26TO_43	A/A: GREY	
43 TO 177	SHET: GREY, SANDY - FINE, SOME WOOD PIECE	ES
177 TO 190	HROWN ORGANICS: SANDY, FROZEN, ICE LENSES	3
190 TO 287	CREW SANDY STUT: ICE LENSES	
<u>287 TO 297</u>	SIETA GREY, BROWN STREAMS	
_297TO_377	GREY STEIN SAND	
377 TO 387	ICE LENSES	
_387TO_412	GREY SILTY SAND, FROZEN	
4/2 TO 426	A/A: SOFTER, UNFROZEN 1?	
426 TO 440	GREY SAND: VERY FIRE, SLIGHT W STUTY, SM	
440 TO 495	WATER SAND: GREY, SLIGHTLY SILITY	-
495 TO 500	CLAY	
TTO.		

LAS 24337

plate

M-W DRILLING, INC.	Date: 09 Dec 1999
Well History Profile/Equipment Inventory	Job No.: 99-143
Client: Alaska Mechanical, Inc.	Loc'n: City Sub Wtr Trtmt Fac
GENERAL	Sec: Tnshp: Rng:
Owner: Bethel Water Utility Engineer: CRW City:	
Well Used for: Class A Public	Well No.: <u>One</u>
Date Drilled: Oct/Nov 99 Date in Service: CONSTRUCTION	All depths below top of casing
Drill Method: Cabletool Aquifer Type: Sand TD: 500 feet Type Screen: "V" Wire Gravel Pack (Y/N): N Other: Natural Drill Fluid Type: Water Developed by: Surgeblock Chemicals Used: None	-2' GS
Surface Csg OD: 14" Depth: 45 Matl: A53 st1Seal: Rentonite Pump Csg OD: Depth: Matl: Seal: Prod Csg OD: 10 3/4" Depth: 450.69 Matl: A53 Seal: Bentonite Screen OD: 9.5" Slot: 0.010" Matl: Stainles@ravel Pack Size: N/a Packers/Plues: Fig K @ 441! ORIGINAL TEST DATA Static Level: 25.4' Pumping Level: 71.4' Drawdown: 46' GPM: 410 Duration: 24 hrs Recovery: 1 hr Specific Capacity: 8.9 GPM/Ft Sand Content: 0	-43 'Surface Csg
Turbidity:Other:	
Type: PSI (dis):	K Pkr
Pump Mfg: Model No.: Serial No.: Bowl OD: Stgs: HD/Stg: Pump Eff: Column OD: Tube: Shaft: Wire Size: Motor Mfg: HP: RPM: Volt: Amps: (Lock) (Full Load) SF: PF: Eff:	-450.69 Shoe -451.22 Top Screen
Recent repair history/treatment/test data: Date last serviced: Reason:	14" Borehole Diam
Date last serviced:	
DD: Specific Capacity: Duration: Last treated: How: Results:	-491.27' Bottom Screen -496.21'
Form WAP 0192 rev. 10/98	TD borehole 500 ft.

J.W. 5

M-W DRILLIN INC - TEST PUMP RE)RT Sheet 1 of 2

Sheet 1 of 2

Date: 30 Nov 99

Job No. 99-143

Conducted by: M-1	W Drilling, Inc.	- Bill Sommerville &	Dick Phillips	
		Address: Bethel,		
Vell Location:b	uilding at City S	Subdivision Water Tre	atment Facility - Wel	1 No. 1
			Screen from	
·	Casing size	_ Screen Diam	Screen slot	· · · · · · · · · · · · · · · · · · ·
	RemarksSee	Well log & Profile f	or above info; flown	eter used .
oump Information:	Intake depth 89	Pump size 30 HP S	Sub Air line depth	Clectric
•	Static water level	25.4' Av. discharge	410 GPM, max. d	rawdown 48
on:			np off Time <u>16</u>	

TIME	WATER LEVEL	PIEZO- TUBE	FLOW GPM	REMARKS	TIME	WATER LEVEL	PIEZO- TUBE	FLOW GPM	REMARKS
1545	25.7		425	Startup	1820	71.35		410	
46	67.5				50	71.3			
47	72.1				1920	71.4			
48	72.8				50	71.4			
49	73.6		400		2050	71.85			
50	71.5				.2150	71.95			
· 55	72.1				2250	71.8		415	
600	72.55				2350	73.5			
05	71.4				2450	73.7			
10	71.45		:		0150	73.7			
15	71.45				0250	. 11			
20	71.5			•	0350	11			
30	71.75				0450	71.25		410	Adjusted dow
40	"				0550	71.2			
50	11				0650	71.00		405	
1700	11				0750	70.95		410	
10_	71.9		410		0850	. 17			
20	72.05				0 950	70.7			
50	71.25		400		1050	п		ļ	

M-W DRILLING INC

INC - TEST PUMP REF RT

Sheet _2 of 2 Date: _30 Nov 99

Job No. 99-143

conducted by: M-	W Drilling, In	10.		
)wner:Ci		Address:		
Vell Location:c	tv Subdiv WTF	_ Well No. 1		
Vell Information:	Ťtl. depth	Depth of casing	Screen from _	То
	Casing size	Screen Diam	Screen slot	
	Remarks	See sheet no. 1		
ump Information:	Intake depth_	Pump size	Air line depth	
•				x. drawdown
ump on:	Time	Date	Pump off Tim	e Date

TIME	WATER LEVEL	PIEZO- TUBE	FLOW GPM	REMARKS	TIME	WATER LEVEL	PIEZO- TUBE	FLOW GPM	REMARKS
150	70.8		415		1614	28.0			
1250	70.9				15	28.			
1350	ŧI				16	27.9			
1450	70.95				17	27.8			
L550	71.3				18	11			
1600	71.3			Shutdown	19	27.7			
1601	32.6		9	Recovery	20	27.6			
02	30.				21	11			
03	29.7				22	ti			
04	Ħ				23	27.5			
05	29.6				24	27.4			
06	29.4				25	91			
07	29.1				26	11			
08	29.9				27	27.3			
09	28.8				28	*11			
10	28.6				29	11			
11	28.4				30	er			
1.2	28.3				40	27.0			
13	28.1				50	26.8			

