

STATE OF ALASKA 34749 DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINING, LAND & WATER Alaska Hydrologic Survey

WATER WELL LOG Revised 08/18/2016

Drilling Start	ed:/	/	Comple	eted: <u>6</u> /	<u>23 / 2000</u> Pump Install://				
City/Borough	Subdivis	ion	Block	Lot	Property Owner Name & Address				
Matanuska-Susitna Borough					CITY OF WASILLA, BUMPUS BALLFIELDS ,				
Well location: Latitude 61					e <u>-149.496406</u>				
Meridian <u>S</u> Towns	ship <u>017N</u> Ran	ge <u>001W</u>	Section	n <u>05</u> , <u>SE</u> 1/4 of <u>NE</u> 1/4 of <u>NE</u> 1/4 of <u>SW</u> 1/4					
BOREHOLE DATA: (from					thod: Air rotary, Cable tool, Other				
Suggest T.M. Hanna's hydrog https://my.ngwa.org/NC Prod				Well use: Public supply, Domestic, Reinjection, Hydrofracking					
		De	pth	Commercial, Observation/Monitoring, Test/Exploratory, Cooling,					
		<u>From</u>	<u>To</u>	☐ Irrigation/Agriculture, ☐Grounding, ☐Recharge/Aquifer Storage,					
silt. brown overlain with forest litter a	-	-	2	Heating, Geothermal Exploration, Other					
sand gravel with some silt. occasion			10		ble: <u>178</u> ft Casing stickup: <u>3</u> ft				
sandy gravel with trace silt, numero	ous cobbles. brown	10	16		e: inches				
sandy gravel with trace-some silt. nume	erous cobbles. brown	16	55	Casing dia	meter: <u>8</u> inches Casing depth: <u>152</u> ft				
silt with trace-some sand	d. gray. hard	55	85		Depth: ft Diameter:inches				
gravelly sand with son	ne silt. gray	85	100		E TO 152 FT, SCREEN ASSEMBLY TO 164 FT				
silt. gray. hard		100	102		e opening type: Open end, Open hole, Other <u>screened</u> e:, Screen mesh size: <u>.1</u>				
gravelly sand with some silt. occasi	ional cobbles. gray	102	115		rt: <u>152.4</u> ft, Screen stop: <u>163</u> ft, Perforated Yes I No				
gravelly fine-medium sand.	gray. saturated	115	119		description: Perf from: ft, Perf				
sandy gravel with trace silt.	gray. saturated	119	125		_ft, Perf from: ft, Perf to: ft				
		130		ked ☐Yes					
gravelly sand with some silt. gray 130 135		135	Note:	r (from top of casing): <u>72.3</u> ft on/ Artesian well					
fine-medium sand with some silt. gray 135 143		143		evel & yield: feet after hours at gpm					
			162						
sand and siltstone fragn	nents. brown	162	164	Developme	testing: ent method: Duration:				
		164	170		ate: gpm _ bentonite Volume				
sandstone bedrock. grav	V	170	176		m_0ft, To 20ft				
Include description or sketch of	f well location (ind	clude road	d names,		o intake depth: ft Model:				
buildings, etc.):					hp_Brand name:				
				Was well d	isinfected upon completion? Yes INO				
					disinfection:				
					quality tested? Yes No				
				Water qual	ity parameters tested:				
				weil arlier	name: WAYNE.WESTBERG name: M-W.DRILLING				
					dress: PO BOX 110378				
			North		IORAGE State: <u>AK</u> Zip: <u>99511</u>				
				Phone num	nber: (<u>907</u>) <u>945</u> - <u>3287</u>				
AS 41.08.020(b)(4) and AAC 1 copy of the well log be submitt				Driller's sig	nature:				
Resources within 45 days of well completion . Well logs may be submitted using the online well log reporting system available at:				Date:	/// Municipal Code 15.55.060(I) and North Pole Ordinance 13.32.030(D) require				
					Municipal Code 15.55.060(I) and North Pole Ordinance 13.32.030(D) require of this well log be submitted to the Development Services Department/City				
https://dor.clocks.cov/ww	olte/				s of well completion.				
https://dnr.alaska.gov/welts/				City Permit	Number:				
OR email electronic well logs t	0			Date of Issu	Number: e://				
dnr.water.reports@alask	ka.gov			Parcel Identi	ification Number:				

*Guide for Using the Hydrogeologic Classification System for Logging Water Well Boreholes by Thomas M. Hanna NGWA Press







we want the set of the LOG OF BORING Bumpus GILFILIAN ENGINEERING S ENVIRONMENTAL TESTING, INC .---SAMPLE 5 DEPTH (feel) GRAPHIC LOG SAMPIES ل شکری شکر ا BLOWS/FT. PIO (ppm) MATERIALS DESCRIPTION ిస్త్రి గార 8" Diameter Steel Page 1 of 2 Casino w/ 3'Stickup SILT (Loess,) Brown overlain with Forest Litter and Organic Mat. Sandy GRAVEL with Some Silt, Occ. Cobbles, Brown F10 Sentonite Grout to 20° Minimum Sandy GRAVEL with Trace Sill. E15 Numerous Cobbles, Brown -20 -25 Sandy GRAVE! with Trace-Some Silt. Numerous Coobles. Brown <u>–</u>30 **E**35 40 -45 8" Steel Casing E-50 E-55 -60 E-65 SILT with Trace-Some Sand, Gray. Hard E-70 Static Water Level at 72.3 ft. [75 **E-80** -85 Gravelly SAND with Some Sill, Gray -90 LOG OF BORING Bumpus New Port DRILLING COMPANY MEW Drilling Bumbus Well #2 PROJECT Bumpus Ball Field DATE DRILLED June 22-23. 2000 LOCATION 00004:1 JOB NUMBER SURFACE ELEVATION _ 435 Ft

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GILFILIAN ENGINEE ENVIRONMENTAL TE			IC.		-		LOG OF BORING Bumpus
	DEPTH ((eel)	BLOWS/FT,	PID (ppm)	SAMPLE NUMBER	SAMPLES	GRAPHIC LOG	MATERIALS DESCRIPTION Page 2 of 2
				×		1 1 1 1 1 1 1 1 1 1 1 1 1 1	Gravelly SAND with Some Silt. Gray
						1	🔨 SILT, Gray. Hard
							Gravelly SAND with Some Silt. Occ. Coddles, Gray
						0.0	Gravelly Fine-Medium SAND, Gray, Saturated
	E-120		-			000	Sancy GRAVEL with Trace Silt. Gray, Saturated
≪ 8" Steel Casing		Ŧ				1501 2/01	Sancy GRAVEL with Some Site Gray
	-135					1676	Gravelly SAND with Some Silt. Gray
Packer	-140		٤				Fine-Medium SAND with Some Silt.Gray
Stank St	-150 -155 -160						Sandy GRAVEL with Trace Siit, Occ. Cobbles, Gray (Screened from 152.4' to 163')
2 Blank with Welded	-165						SAND & SILTSTONE Fragments, Brown
Coros on End Cap	470						SILTSTONE BEDROCK, Dark Brown
represent all a set represent represent represent all a set TD 176 ft.	75						SANDSTONE BEDROCK, Gray TD.178 H.
	180						

	PROJECT Bundus Hell #2	DRILLING COMPANY MGW Orilling	
	LOCATION Bundous Ball Field	DATE DRILLED June 22-23. 2000	
	JOB NUMBER	SURFACE ELEVATION 435 FL	
1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		

14

LOG OF BORING Bumpus





Pump test log by Steve Rebillard with Gliffian Engineering & Environmenati Testing, Inc.

Well Location: MSB Tax Parcel B4, Section 5, T17N, R1W. Seware Well Owner: City of Wasilla								
Start Test: July 14, Time: 1538	2000		Stop Test: July 14, 2000 Time: 1900					
Test Well Informatio	on Total Depth: Diameter: Pump Depth: Stickup: Datum: SWL	165.8 8 152 2.8 Top of Weil Casing 72.3	in. ft. ft.					

Flow Meter: Spaning A10-1C

Pump test equipment provided/operated by: M&W Drilling, Anchorage/Bill Summerville & Ted Durham

Pump is 25 HP Berkely with 4" Dia. Drop Pipe.

Top of Well Screen

Attached are well logs and all completion information (casing sizes, location of screens, performation, gravel pack, etc.)

146.7 H.

1	2	3	4	5	6	. 7	8	<u>ġ</u>	10	11	12
Avente balance and a second				Guage Discharge				÷		Available	
						Totalizer	Static	~		Drawdown	
	Elapsed Time					Discharge	Water			(ft) = (static	1
	'n	Recovery "		Qn	Totalizer	Q,	Level ft	Accumulative		level - top of	1
Time	(min)	(min)	Vľ	(gpm)	Readings	(gpm)	below TOC	Draw Down	Draw Down	well screen)	
1538	Ŏ	Q	0	0			72.30	0.00	0.00	74,40	Start test.
1539	f			375			120.00	-47.70	-47.70	26.70	
1540	2			375			124.00	-51.70	-4.00	22.70	
1542	4			375			126.10	-53.80	-2.10	20.60	
1544	6			375			127.00	-54.70	-0.90	19.70	
1546	8		1	375	and the second		127.80	-55.50	-0.80	18.90	
1548	10			375		1	128.20	-55.90	~0.40	18.50	·
1552	14			375			128.80	-56.50	-0.60	17.90	
1558	18			375			128.90	-56.60	-0.10	17.80	
1600	22		1	400		· · · · · ·	129.10	-56.80	-0.20	17.60	
1604	26	Constraint in the second s		400	26607.0	0	129.20	-56.90	-0.10	17.50	(Totalizer
1608	30			400	26620.7	343	129.30	-57.00	-0.10	17.40	reading
1613	35			400	26637.9	344	129.70	-57.40	-0.40	17.00	begins @
1618	40			400	26654.9	340	128,10	-55.80	1.60	18.60	1604)
1630	52		1	400	26696.0	342	129.00	-56.70	-0.90	17.70	
1638	60 İ			400	26723.5	344	129.30	-57.00	-0.30	17.40	
1648	70		T.	400	26757.9	344	129.30	-57.00	0.00	17.40	
1658	80		Ĩ	400	26795.5	376	129.30	-57.00	0.00 l	17.40	
1708	90			400	26826.5	310	129.60	-57.30	-0.30	17,10	
1718	100			400	26861.0	345	129.90	-57.60	-0.30	16.80	
1728	110		an a	400	26895.8	348	130.20	-57.90	-0.30	16.50	
1738	120			400	26930.5	347	130.40	-58.10	-0.20	16.30	1
1748	130	<u> </u>		400	26965.0	345	130.50	-58.20	-0.10	16.20	
1758	140			400	26999.6	346	130.60	-58.30	-0.10	16,10	End Flow
1800	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0		<u> </u>	Recovery			L	1		Recovery Rate
1815		15		0 [Recoverv		77.70		1		93%
1830		30 1		0	Recoverv		76.90				94%
1900		60 1		0	Recoverv		75.60				96%