

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

WATER WELL LOG Revised 08/18/2016

Drilling Start	ed:/	Comple	eted:2_/_	17 / 2013 Pump Install:/				
City/Borough			Lot	Property Owner Name & Address				
Copper River REAA	Tazlina Acres			Copper River Native Association AK,				
Well location: Latitude 62.				e -145.428294				
Meridian C Towns	ship <u>003N</u> Range <u>0</u>	001W Section	n <u>04 , SE</u> 1/4 of <u>SE</u> 1/4 of <u>NW</u> 1/4 of <u>SW</u> 1/4					
BOREHOLE DATA: (from ground surface) Suggest T.M. Hanna's hydrogeologic classification system*			Drilling method: Air rotary, Cable tool, Other Well use: Public supply, Domestic, Reinjection, Hydrofracking					
https://my.ngwa.org/NCProdu	uct?id=a185000000B	SYub3AAD	Commercial, Observation/Monitoring, Test/Exploratory, Cooling,					
		Depth om To	☐ Irrigation/Agriculture, ☐ Grounding, ☐ Recharge/Aquifer Storage,					
	<u> </u>	om <u>To</u>	Heating, Geothermal Exploration, Other					
			-					
			Fluids used	ble: 140ft Casing stickup: 3ft				
				e: A53B Casing thickness: .25 inches				
				meter: 6 inches Casing depth: 111.5 ft				
				Depth: ft Diameter:inches				
		Note:						
		Well intake opening type: ☐ Open end, ☐ Open hole, ☐ Other screened						
		Screen type:, Screen mesh size: _6						
			Screen start: 107.1 ft, Screen stop: 116.6 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): 26.4 ft on 2 / 17 / 2013 Artesian well					
			Pumping level & yield: 12 feet after 7 hours at 60 gpm					
			Method of testing: Submersible pump Development method: air surge Duration:					
				ate: gpm				
				Bentonite Volume 5 sacks				
				mft, To <u>20</u> ft				
Include description or sketch of	well location (include	e road names,	Final pump intake depth: ft Model:					
buildings, 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:					
			Company name: M-W DRILLING					
			Mailing address: PO Box 110389					
		North	City: Anchorage State: AK Zip: 99511					
AO 44 00 000(I) V(I)			Phone num	nber: (<u>07)</u>) <u>345</u> - <u>4000</u>				
AS 41.08.020(b)(4) and AAC 11 AAC 93.140(a) require that a copy of the well log be submitted to the Department of Natural			Driller's sig	nature:				
Resources within 45 days of v			Date:	//				
be submitted using the online variable at:	well log reporting sys	tem	Anchorage N	Municipal Code 15.55.060(I) and North Pole Ordinance 13.32.030(D) require				
https://dnr.alaska.gov/we	elts/		within 30 day	of this well log be submitted to the Development Services Department/City ys of well completion.				
OR email electronic well logs to	0		City Permit Number: Date of Issue://					
dnr.water.reports@alask			Parcel Identi	fication Number:				

M-W Drilling, Inc.

◆P.O. Box 110389 ◆ Anchorage, AK 99511 ◆ ◆907-345-4000 ◆ 907-345-3287 Fax ◆

Job No. 12-137

GROUNDWATER WELL AS-BUILT & LOG

Well Owner: 0		vner: (Copper River Native Association Use of Well: Commercial					
Legal	Descrip		fract 2 & 3					
			Fazima Acres Subdivision	,(to-m.p.				
CONSTRUCTION								
Drill Me	thod:	Air Rota	ry Hole Size: 6" Hole Depth: 140"					
Casing S		> "	Cased to: 111.5 Material: A538 Wall: .250					
	mpletion		Open end Screen x Perforated Method: K-packer & riser: 107.1 to 111.5, .60 slot screen: 111.5 to 116.6, tail pipe: 116.6 to	*******				
Screen/	Perforat	tion des	cription; 120					
Grout N	otes:	(5)Sa	ock(s) of Bentonite Installed while pulling 20" of 10" surface casing					
	velopme		ır surge					
	infected							
Yield tes	·	60 mersible	GPM for 7 hour(s) with 12 of drawdown (DD) from static level(SWL). Static Water Level (SWL): 26.4					
Method: Start Da		CONTRACTOR CONTRACTOR CONTRACTOR	1-15-12 Completion Date: 2-17-13	wown				
	np Date	: 2	-17-13 Final Pump Install Date:					
			WELL LOG					
	n feet fro f casing		Details of formations penetrated, size of material, color and miscellaneous details.					
0	то	3	Casing Stick Up	·				
3	TO	17	Gravel: sandy, medium					
17	TO	24	Sand: some gravel					
24	TO	30	Sand & gravel: wet					
30	TO	44	Gravel: coarse, some sand, wet					
44	то	115	Water gravel: medium, some sand, 15-20 gpm up to 70 gpm					
115	TO	128	Water gravel: medium, some sand, more sand, 20-30 gpm					
128	ТО	140	Clay: silty, glacial till, pipe driving very hard, and pulled extremely					
1.20	. —	2	hard					
	то		1.1% (1.1%)					
	TO		· •					
	TO							
	TO		WAYNE E. WESTBERG					
			Figs dent MAN Disking 196.					
	TO		NGWA Canstieu Master Broundwater Contractor Ak Gen Contribute no 1800					
	TO		୍ର କ୍ୟାକ୍କ ପ୍ରଥମ ଓଡ଼ିଆ କଥାଚିତ୍ର କଥାଚିତ୍ର କଥାଚିତ୍ର କଥାଚିତ୍ର କଥାଚିତ୍ର କଥାଚିତ୍ର କଥାଚିତ୍ର କଥାଚିତ୍ର କଥାଚିତ୍ର କଥାଚିତ 					
	TO							
	TO		₹ 					

M-W Drilling, Inc. MONITOR REPORT

Sheet _1_ of _1_ Date: _2-17-13__

Conducted By:_M-W Drilling, Inc M-W Job No12-137 Owner:_Copper River Native Association Address:_Tract 2&3 Tazlina Acres						
Well Information:	Total Depth:_140_ Casing Size:_6"	Depth of Casing: 111.5 Screen: From _111.5 To116.6 Screen Diameter: _5"				
·	Static water level: 2	Pump Size:_5HP_ Water Level Meas.: Electric 26.4' Avg. discharge:60 GPM, max, Drawdown:11.88'				
Misc. Pump Info.:	Pump On: Date: 2	-17-13 Time: _0835_ Mtr. Reading: N/A Timed bucket -17-13 Time: _1500_ Mtr. Reading: _measurement				

Time	Water Level	Flow GPM	Remarks	Time		Water	Flow	Remarks	
				Clock	Elpsd	Level	GPM	Was 1	
0835	•	26.45	60		1502		28.44		
	d	**************************************	60	and the second control of the contro	1503		28.31		
0836	•	27.41	00		1504		28.22		
0837		27.68	· · · · · · · · · · · · · · · · · · ·	the state of the s	<u>, ja</u>	•	28.01		
0838		27.99			1505	manufacture of the second	<u> </u>		
0839		28.14		277	1510		27.77		CANADA CONTRACTOR CONT
0840	•	28.31			1515		27.56	: :	
0845		32.33			1520	i i i i i i i i i i i i i i i i i i i	27.50		
0850		34.65			1530		27.22		and the second s
0855	***************************************	36.21			1540		27.11		
	4	37.61		A CONTRACTOR OF THE PROPERTY O	1550		27.06		
0900		·			1600		26.85		
0915		38.16		\$					
0930		38.31			6				01 to 1/1/10/00/00/00/00/00/00/00/00/00/00/00/
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1000		38.49		Parties planting of the second			indian		***************************************
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1100		38.51		diameter and the second		er y hiji na njegovaje na			
1200		38.49				- January Construction		M. W. C.	
1300		38,21		opposition (constraints)					
1400		38.31	1			1110 6 1111 1710 8 11111		essa is management to the second second	and the second s
1500	38.33	:	Shut pump off &		mage movement and movement	i	•	A STATE OF THE STA	
				Recovery			····	g	and the second s
1501		29.37	and the second s						