

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

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

Job No.:24-111

Well Owner:	United States Corps of Engineers	Use of Well:	Public
Site Description:	CRREL Permafrost Facility, Fox, Alaska		
Legal Description:			
Well Coordinates:	Lat: 64.9513 Long: -147.6211		

Drill Method:	Air rotary	Hole Size:	6"		Well Depth:	300'
Casing Material:	A53B steel	Casing Size:	6"	Wall:	.250	Cased to: 186.42'
Liner:	Sch-40 PVC	Liner Size:	4 ½ "	Wall:	.248	Range: 180' to 300'
Well Completion:	Open end:	Screen:	Liner:	X	Perforated:	Method:
Liner/Perforation Description:		PVC well casing from 180' to 300', PVC well casing perforated x3 rows from 220' to 300'				
Grout Notes:		12" surface casing installed to 21' from ground surface, annulus between 12" surface casing and 6" well casing grouted with 3/8" bentonite chips from 21' to 9', 12" surface casing removed from well				
Well Development:	Air surge; submersible pump					
Well Disinfected:	yes	Method:	Chlorine bleach			
Yield Test at	3.5	GPM for	8	hour(s) with	141.4'	of drawdown (DD) from static level (SWL).
Method:	Submersible pump				Static Water Level (SWL):	15.2'
Start Date:	4/9/25		Completion Date: 4/17/25			
Test Pump Date:	4/16/25		Final Pump Install Date:			
		Pump Installation Notes:				

Depth in feet from top of casing.	Details of formations penetrated, size of material, color and miscellaneous details.
0 TO 3	Casing Stick up
3 TO 23	Gravel: medium, sandy
23 TO 41	Silt: hard packed, some gravel, brown
41 TO 45	Sand: some gravel, brown
45 TO 300	Bedrock: birch creek schist, water fractures from 238' to 246' and from 272' to 286'
	<i>Kris G. Westberg</i> President, M-W Drilling, Inc. Alaska Gen Contr Lic #1000

**M-W Drilling, Inc.
TEST PUMP REPORT**

SUBMITTAL SN 24-111-09

Sheet 1 of 2
Date: 4/16/25

Conducted by: M-W Drilling, Inc. – Kris, Nick						M-W Job #: 24-111	
Owner: US Corp of Engineers							
Address: CRREL Permafrost Tunnel OPS Facility, Fox, Alaska							
Well Location:							
Well Info:	Total Depth: 300'		Depth of Casing: 186'		Casing Size: 6"		
	Liner Slot: ¼"		Liner: From 180' to 300'		Liner Diameter: 4 ½ "		
Remarks: 4 ½" PVC well casing installed in well from 180' to 300'							
Pump Info:	Make: Franklin		Model: 7FR3P4		HP: 1	Volts: 230	Pump Diam: 4"
Test Info:	Intake Depth: 295'		Water level meas.: Water Level Indicator				
	Pump on: Time: 9:45		Date: 4/16/25				
	Pump off: Time: 17:45		Date: 4/16/25				
	Static water level: 15.2'		Max. drawdown from SWL: 141.4'		Avg. discharge: 3.5 GPM		
Remarks:							

Time		Water Level	Flow GPM	Remarks	Time		Water Level	Flow GPM	Remarks
Clock	Mins. Elpsd				Clock	Mins. Elpsd			
9:45	0	15.2	2.8	Turn pump on	13:00	195	143.5	3.5	Run Rossam Sand
9:46	1	16.9	2.8		13:30	225	146.6	3.5	Test, non-detectable
9:47	2	20.0	2.8		14:00	255	147.9	3.5	
9:48	3	21.7	2.8		14:30	285	150.1	3.5	
9:49	4	24.25	2.8		15:00	315	151.5	3.5	
9:50	5	26.3	2.8	Run Rossam Sand	15:30	345	153.1	3.5	
9:51	6	28.2	2.8	Test, non-detectable	16:00	375	154.0	3.5	
9:52	7	30.5	2.8		16:30	405	155.4	3.5	
9:53	8	32.6	2.8		17:00	435	156.2	3.5	
9:54	9	24.7	2.8		17:30	465	156.5	3.5	Run Rossam Sand
9:55	10	36.2	2.8		17:45	480	156.6	3.5	Test, non-detectable
10:00	15	46.0	2.8						Shut pump off
10:05	20	54.1	2.7		17:46	1	155.7		Begin Recovery
10:10	25	61.5	2.7		17:47	2	153.6		Readings
10:15	30	68.0	2.7		17:48	3	152.5		
10:20	35	74.2	2.7		17:49	4	151.1		
10:25	40	80.0	2.7		17:50	5	149.2		
10:30	45	85.25	2.7		17:51	6	147.5		
10:40	55	94.7	2.7		17:52	7	145.7		
10:50	65	103.5	2.7		17:53	8	143.6		
11:00	75	109.0	2.7		17:54	9	140.3		
11:30	105	123.5	2.5		17:55	10	139.4		
12:00	135	132.8	2.5		18:00	15	130.8		
12:30	165	139.9	2.5		18:05	20	118.6		

Continuation Sheet

Date: 4/16/25

[illegible]