



STATE OF ALASKA 44854
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER
Alaska Hydrologic Survey

WATER WELL LOG Revised 08/18/2016

Drilling Started: / / Completed: 11 / 20 / 2015 Pump Install: / /

City/Borough	Subdivision	Block	Lot	Property Owner Name & Address
Wasilla	TERRACES AT THE RANCH		NA	REX TURNER , AK

Well location: Latitude 61.55943 Longitude -149.28345
Meridian Township Range Section 1/4 of 1/4 of 1/4 of 1/4

BOREHOLE DATA: (from ground surface)

Suggest T.M. Hanna's hydrogeologic classification system*
https://my.ngwa.org/NC_Product?id=a185000000BYub3AAD

	Depth	
	From	To
OVERBURDEN	0.0	1.0
SAND GRAVEL	1.0	21.0
SILT SAND	21.0	109.0
SILT SAND WITH CLAY	109.0	162.0
SAND GRAVEL WITH CLAY	162.0	168.0
SAND GRAVEL WATER	168.0	183.0
CLAY	183.0	184.0
SAND GRAVEL	184.0	192.0
SILT SAND CLAY	192.0	217.0
SANDY GRAVEL WATER	217.0	249.0
SAND CLAY SMALL GRAVEL WET	249.0	375.0
CLAY WITH GRAVEL	375.0	392.0
SAND GRAVEL WATER	392.0	405.0
SILTY SAND GRAVEL WATER	405.0	412.0
TIGHT SAND GRAVEL WATER	412.0	419.0
SMALL SAND AND GRAVEL WATER	419.0	423.0
SAND GRAVEL WATER	423.0	429.0

Include description or sketch of well location (include road names, buildings, etc.):

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,
☐ Heating, ☐ Geothermal Exploration, ☐ Other

Fluids used:

Depth of hole: 447 ft Casing stickup: 3 ft
Casing type: STEEL Casing thickness: 0.25 inches
Casing diameter: 8 inches Casing depth: 418 ft
Liner type: Depth: ft Diameter: inches

Note:

Well intake opening type: ☐ Open end, ☐ Open hole, ☐ Other
Screen type: SLOT, Screen mesh size:
Screen start: 419 ft, Screen stop: 444 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: 284.6 feet after hours at 200 gpm
Method of testing: AIR
Development method: Duration:
Recovery rate: gpm

Grout type: BENTONITE Volume 100 LBS
Depth: From ft, To 40 ft

Final pump intake depth: ft Model:
Pump size: hp Brand name:

Was well disinfected upon completion? ☒ Yes ☐ No
Method of disinfection: CHLORINE 50PPM
Was water quality tested? ☐ Yes ☐ No
Water quality parameters tested:

Well driller name:
Company name: SULLIVAN WATER WELLS
Mailing address: P.O. BOX 670269
City: CHUGIAK State: AK Zip: 99567
Phone number: (907) 688 - 2759

Driller's signature:
Date: / /

Anchorage Municipal Code 15.55.060(I) and North Pole Ordinance 13.32.030(D) require that a copy of this well log be submitted to the Development Services Department/City within 30 days of well completion.

City Permit Number:
Date of Issue: / /
Parcel Identification Number: - -

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 Resources within 45 days of well completion. Well logs may be submitted using the online well log reporting system available at:

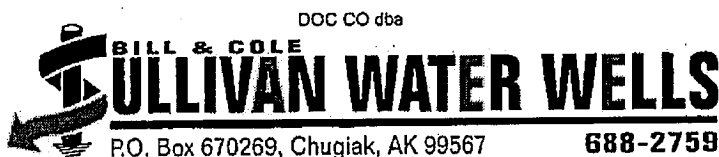
<https://dnr.alaska.gov/welts/>

OR email electronic well logs to

dnr.water.reports@alaska.gov

44854

Certified Drilling Log



DOC CO dba

P.O. Box 670269, Chugiak, AK 99567

688-2759

OWNER OF LAND: Rex Turner
 ADDRESS: rex@rexturmer.com
 LEGAL DESCRIPTION: Terraces at The Ranch
 DATE: 11-20-15
 PERMIT NUMBER: _____ DATE OF ISSUE: _____
 TAX IDENTIFICATION NUMBER: _____
 Is well located at approved permit location: ☐ Yes ☐ No
 Method of Drilling: ☒ air rotary ☐ cable tool
 Depth of Well: 447
 Casing Type: Steel Wall thickness .250 inches
 Diameter: 8 inches, depth 421 feet
 Liner type: _____
 Static Water Level: 10' feet
 Recovery Rate: 200+ ☒ gpm ☐ gph
 Method of Testing: Air
 Well Intake Opening Type: ☐ open end ☐ open hole
☒ Screened Start 424 feet Stopped 447
☐ Perforations Start _____ feet Stopped _____
 Grout Type: Bentonite Volume: 100 lbs
 Depth: from 3 feet, to 43 feet
 Well Disinfected Upon Completion: ☒ yes ☐ no
 Method of Disinfection: Chlorine 50 PPM

Comments:

Screen assembly from bottom of hole to top: 10' of 100 slot screen, 5' of 60 slot, 5' of 50 slot, 5' of 30 slot.

Total length of screen assembly including packers: 28'3"

Top of screen assembly 418' 9"

Bore Hole Data

Depth	
From	To
0	3
3	4
4	24
24	112
112	165
165	171
171	186
186	187
187	195
195	220
220	252
252	378
378	395
395	408
408	415
415	422
422	426
426	432
432	447

Casing Stickup

Overburden

Sand & Gravel

Silt & Sand

Silt & Sand w/ Clay

Sand & Gravel w/ Clay

Sand & Gravel w/ Water

Clay

Sand & Gravel

Silt, Sand & Clay

Sandy Gravel & Water

Sand, Clay, small Gravel wet

Clay w/ Gravel

Sand & Gravel Water

Silty Sand & Gravel Water

Tight Sand & Gravel Water

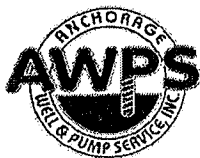
Small Sand & Gravel Water

Sand & Gravel Water

Large Sand & Gravel Water

Drillers Name: Cole Sullivan

ATTENTION: It is the responsibility of the property owner to submit a copy of the well log to the proper authority.
 Municipality of Anchorage, Department of Health & Human Services and/or Department of Environmental Conservation



WATERWELL - TEST PUMP REPORT

Conducted by Anchorage Well & Pump Service

330 E 76th Avenue, Anchorage AK 99518-2840

Ph: (907) 243-0740 Fax: (907) 243-0742

Owner Information

Owner: Turner Construction

Address:

Well Location: Wasilla - Terraces at the Ranch

Well Information

Total Depth: 447'

Screen From: 447' to 419'

Screen Diameter: 7.125 inch telescoping

Depth of Casing: 421'

Pump Information

Intake Depth: 412'

Static Water Level: 8.4'

GPM Max Drawdown: 153 GPM at 293.7 ft DD

PUMP ON Time: 8:00AM Date: 4/27/16

PUMP OF Time: 8:00AM Date: 4/28/16

Casing Size: 8"

Screen Slot: 5' of 60 slot, 5' of 50 slot

and 5' of 30 slot

Remarks: 477 V, 74.4 Amps

Date	Time	Adj Water Level	Flow GPM	Meter	Monitoring Well - Near	Monitoring Well - Far	Comments
		8.4			13.5	26.1	BEFORE TEST
4/27/16	8:00	0	0	3549400		26.1	
	8:05	-281.7	420	3551500			
	8:10	-286.7	160	3552300	295.0		
	8:20	-280.7	190	3554200	290.8		
	8:30	-288.8	130	3555500	287.2		
	8:45	-292.4	167	3558000	284.1		
	9:00	-293.1	160	3560400	279.2		
	9:15	-295.0	153	3562700	277.2		
	9:30	-291.4	153	3565000	274.0		
	9:45	-291.7	140	3567100	272.7		
	10:00	-286.5	167	3569600	270.6	26.1	
	10:15	-281.6	147	3571800	269.8		
	10:30	-280.7	140	3573900	268.3		
	10:45	-280.2			267.6		
	11:00	-281.2	143	3578200	266.5		
	11:15	-280.8			266.0		
	11:30	-287.0	143	3582500	264.9		
	11:45	-291.1			264.3		
	12:00	-287.4	153	3587100	263.4	26.1	
	12:15	-284.6			263.1		
	12:30	-291.0	140	3591300	262.3		
	12:45	-292.0			261.9		
	13:00	-291.5	147	3595700	261.2		
	13:15	-290.8			261.0		
	13:30	-290.1	150	3600200	260.5		
	13:45	-289.7			260.3		
	14:00	-290.6	160	3605000	259.9	26.1	
	14:15	-293.8			259.6		
	14:30	-293.5	137	3609100	259.2		
	14:45	-292.1			259.1		
	15:00	-291.5	147	3613500	258.8		
	15:15	-291.1			258.7		

Date	Time	Adj Water Level	Flow GPM	Meter	Monitoring Well - Near	Monitoring Well - Far	Comments
	15:30	-291.7	147	3617900	258.5		
	15:45	-291.5			258.4		
	16:00	-291.8	150	3622400	258.2	26.1	
	16:15	-291.6			258.1		
	16:30	-291.6	147	3626800	257.9		
	16:45	-290.9			257.8		
	17:00	-291.1	147	3631200	257.6		
	17:15	-292.1			257.6		
	17:30	-291.1	153	3635800	257.4		
	17:45	-291.8			257.3		
	18:00	-291.5	143	3640100	257.2	26.1	
	18:15	-291.4			257.1		
	18:30	-291.3	153	3644700	257.0		
	18:45	-291.7			257.0		
	19:00	-291.7	143	3649000	256.9		
	19:15	-291.3			256.8		
	19:30	-292.6	147	3653400	256.7		
	19:45	-292.8			256.7		
	20:00	-292.0	147	3657800	256.6	26.1	
	20:15	-292.6			256.5		
	20:30	-292.5	153	3662400	256.4		
	20:45	-292.6			256.3		
	21:00	-293.4	140	3666600	256.2		
	21:15	-292.4			256.1		
	21:30	-292.7	147	3671000	256.1		
	21:45	-292.0			256.0		
	22:00	-292.4	150	3675500	256.0	26.0	
	22:15	-292.7			255.9		
	22:30	-293.0	147	3679900	255.8		
	22:45	-292.3			255.8		
	23:00	-292.8	147	3684300	255.7		
	23:15	-293.0			255.7		
	23:30	-292.3	147	3688700	255.6		
	23:45	-292.9			255.5		
4/28/16	0:00	-292.9	150	3693200	255.5	26.0	
	0:15	-293.2			255.5		
	0:30	-292.9	143	3697500	255.5		
	0:45	-292.6			255.4		
	1:00	-292.9	153	3702100	255.4		
	1:15	-292.7			255.3		
	1:30	-292.9	140	3706300	255.3		
	1:45	-292.8			255.2		
	2:00	-292.4	150	3710800	255.1	26.0	
	2:15	-292.5			255.1		
	2:30	-292.5	143	3715100	255.0		
	2:45	-293.2			255.0		
	3:00	-293.0	140	3719300	254.9		
	3:15	-292.3			254.9		
	3:30	-292.6	150	3723800	254.7		
	3:45	-292.5			254.7		
	4:00	-293.5	150	3728300	254.6	26.0	
	4:15	-293.3			254.5		
	4:30	-293.7	153	3732900	254.4		

Date	Time	Adj Water Level	Flow GPM	Meter	Monitoring Well - Near	Monitoring Well - Far	Comments
	4:45	-293.0			254.4		
	5:00	-292.9	153	3737500	254.3		
	5:15	-292.6			254.3		
	5:30	-293.8	143	3741800	254.2		
	5:45	-293.0			254.2		
	6:00	-293.3	143	3746100	254.2	26.0	
	6:15	-293.3			254.1		
	6:30	-293.2	147	3750500	254.1		
	6:45	-293.7			254.1		
	7:00	-293.2	147	3754900	254.0		
	7:15	-293.7			254.0		
	7:30	-292.9	150	3759400	253.9		
	7:45	-293.8			253.9		
	8:00	-293.6	150	3763900	254.6	26.1	Monitoring well DD during test = 56.3 Pump well DD during test = 293.6
					214500	=	GALLONS PUMPED

Ranch Terrace Water Well - Recovery

TEST WELL			MONITORING WELL			Comments
Date	Time	Adj Water	Date	Time	Water Level	
		Level			Manual	
4/28/16	8:00	-293.6				
	8:03	-183.5	4/28/16	8:04	69.1	
	8:13	-90.7		8:06	68.5	
	8:23	-65.1		8:08	67.6	
	8:33	-51.4		8:10	66.6	
	8:43	-42.5		8:12	65.6	
	8:53	-36.2		8:15	64	
	9:03	-31.5		8:20	61.8	
	9:13	-27.8		8:30	56.7	
	9:23	-24.8		8:45	51.5	
	9:33	-22.6		9:00	47.5	
	9:43	-22.5		9:15	43.8	
	9:53	-21.0		13:00	21.5	
	10:00	-19.6		18:00	16.3	
	10:13	-18.3	4/29/16	10:00	13.7	
	10:23	-17.1				
	10:33	-16.1				
	10:43	-15.2				
	10:53	-14.4				
	11:00	-13.6				
	12:00	-10.4				
	13:00	-8.3				
	14:00	-6.9				
	15:00	-5.9				
	16:00	-5.1				
	17:00	-4.6				
	18:00	-4.1				
	19:00	-3.7				
	20:00	-3.4				
	21:00	-3.1				
	22:00	-2.9				
	23:00	-2.7				
4/29/16	0:00	-2.5				
	1:00	-2.3				
	2:00	-2.2				
	3:00	-2.0				
	4:00	-1.9				
	5:00	-1.8				

TEST WELL			MONITORING WELL			Comments
Date	Time	Adj Water	Date	Time	Water Level	
		Level			Manual	
	6:00	-1.7				
	7:00	-1.6				
	8:00	-1.5				
	9:00	-1.4				
	10:00	-1.3				
	11:00	-1.2				
	12:00	-1.1				
	13:00	-1.1				
	14:00	-1.0				
	15:00	-1.0				
	16:00	-0.9				
	17:00	-0.9				
	18:00	-0.8				
	19:00	-0.8				
	20:00	-0.7				
	21:00	-0.7				
	22:00	-0.6				
	23:00	-0.6				
4/30/16	0:00	-0.6				
	1:00	-0.5				
	2:00	-0.5				
	3:00	-0.5				
	4:00	-0.5				
	5:00	-0.5				
	6:00	-0.5				
	7:00	-0.5				
	8:00	-0.5				
	9:00	-0.5				
	10:00	-0.5				
	11:00	-0.5				
	12:00	-0.5				
	13:00	-0.5				
	14:00	-0.4				
	15:00	-0.5				
	16:00	-0.4				
	17:00	-0.4				
	18:00	-0.4				
	19:00	-0.4				
	20:00	-0.4				
	21:00	-0.3				
	22:00	-0.3				

TEST WELL				MONITORING WELL			Comments
Date	Time	Adj Water		Date	Time	Water Level	
		Level				Manual	
4/31/16	23:00	-0.3					
	0:00	-0.2					
	1:00	-0.2					
	2:00	-0.2					
	3:00	-0.1					
	4:00	-0.1					
	5:00	-0.1					
	6:00	-0.1					
	6:15	-0.1					
4/31/16	6:23	0.0					WELL FULLY RECOVERD
	6:33	0.0					End Recovery