

ARCTIC DRILLING, INC.

P.O. BOX 58317

FAIRBANKS, ALASKA 99711

Phone: (907) 451-8706 Fax: (907) 452-4465

DEPARTMENT OF NATURAL RESOURCES**DIVISION OF MINING, LAND & WATER****WATER WELL RECORD**Drilling Started: 4 / 12 / 17, Completed: 4 / 12 / 17

Legal Description:		BLOCK	LOT	Property Owner Name & Address: Kevin Helwig Well on Lester Road, Healy	
City/Borough:	Subdivision:				
Healy					
Meridian _____ Township _____ Range _____ Section _____, _____ 1/4 of _____ 1/4 of _____ 1/4 of _____ 1/4					
BOREHOLE DATA: (from ground surface)		Depth		Drilling method: ☒ Air rotary, ☐ Cable tool ☐ Other _____ Well use: ☒ Public supply, ☐ Domestic, ☐ Other _____	
Material: Type, Color & wetness		From	To		
Dirt/topsoil		0	2	Depth of hole: <u>160</u> ft, Casing stickup: <u>2</u> ft	
Boulders		2	20	Casing type: <u>STEEL</u> Thickness <u>.250</u> inches	
Gravel, hard		20	80	Casing diameter: <u>6</u> inches Casing depth <u>160</u> ft	
Gravel		80	120	Liner type: _____ Diameter: _____ inches Depth: _____ ft	
Wet silty gravel		120	140	Static water (from top of casing): <u>105</u> ft on <u>4</u> / <u>12</u> / <u>17</u>	
Wet gravel/boulders/water		140	160	Pumping level & yield: <u>160</u> feet after <u>1/2</u> hours at <u>100</u> gpm	
				Recovery rate: <u>100</u> gpm, Method of testing: <u>AIR LIFT</u>	
				Development method: <u>AIR SURGE</u> Duration: <u>5 HOURS</u>	
				Well intake opening type: ☒ Open end ☐ Open hole	
				☐ Screened; Start: <u>N/A</u> ft, Stopped _____ ft	
				Screen type: _____ Slot/mesh size _____	
				☐ Perforated; Start: _____ ft, Stopped _____ ft	
				Start: _____ ft, Stopped _____ ft	
				Note: _____	
				Grout type: <u>Bentonite</u> Volume <u>4</u> cf	
				Depth; from <u>10</u> ft, to <u>20</u> ft	
				Pump intake depth: <u>126</u> ft	
				Pump size <u>18GS20</u> hp Brand name <u>Goulds</u>	
				Was well disinfected upon completion? ☒ Yes ☐ No	
				Method of disinfection: <u>Chlorine liquid</u>	
				Driller comments/ disclaimers: _____	

				Well driller name: <u>Dan Brotherton</u>	
				Company name: <u>ARCTIC DRILLING, INC.</u>	
				Mailing address: <u>P.O. BOX 58317</u>	
				City: <u>FAIRBANKS</u> State: <u>AK</u> Zip <u>99711</u>	
				Phone number : (<u>907</u>) <u>451</u> - <u>8706</u>	
				Drillers signature: _____	
				Date: <u>4</u> / <u>12</u> / <u>17</u>	

State law requires that a copy of this well log be submitted to the state of Alaska within 45 days. **CITY OF ANCHORAGE ONLY**

(Alaska statutes: 38.05.020, 38.05.035, 41.08.020, 46.15.020 and regulations 11 AAC 93.140.)

DNR/DIVISION OF MINING, LAND & WATER
550 West 7th Ave., Suite 900A
ANCHORAGE AK 99501-3577

Phone (907)269-8503, Fax (907) 269-8947

The City of Anchorage requires that a copy of this log be sent to the city within 60 days and a copy of this log be sent to the owner of the property on which the well is located within 30 days.

REQUIRED BY THE CITY OF ANCHORAGE ONLY:

Permit Number: _____

Date of Issue: _____ / _____ / _____

Parcel Identification Number: _____ - _____ - _____

Is well located at approved permit location? ☐ Yes ☐ No

Arctic Drilling Inc.

Fairbanks AK
451-8706

4/17/17

Kevin Helwig well report:

Location; Lester Road, Healy at Tri valley Cabins

Drilled 4/12/17

Method: Air rotary, casing driver

Fluids used: Potable water

Casing: 6" steel .250 wall casing to 160 feet, with 10" temporary surface casing to 20 ft bgs

Grout: Bentonite 3/8 hole plug placed in 10" temporary casing annulus to 20 feet, pulled 10" casing while grouting back from 20 feet to 10 feet bgs, 6 bags holeplug used, hydrated as placed and after placement, upper 10 feet backfilled with sand and gravel

Static water level: 104 feet

Well yield:

Well produced est 100 gpm airlifting with rig air,

Installed Goulds 18GS20 pump at 126 feet, produced 30 gpm, ran test for 2 hours

Drawdown to 105.2 feet at 5 minutes, and stabilized at 105.2 feet throughout test

Water was sand free after 15 min pumping.

Pump is left sitting on well seal for now