YWNR: 101160007

Yukon Government

Environment Yukon
Water Resources Branch
203-1191 Front St
Whitehorse, YT, Y1A 0K5
(867) 667-3104

MONITORING WELL DEVELOPMENT, PURGING & SAMPLING RECORDS

Well ID: CAFN MW-01
Project Name:
Project Number:
Date: March 30, 2017
Prepared By: Midnight Sun Drilling Inc
Sample ID: Duplicate ID:
Sample Depth:
Activity Performed at Well:
☒ Development ☐ Purging ☐ Sampling

Well Diameter: 2"
Total Depth of Well: 61 ft
Initial Depth to Water: Time:
1 Casing Volume: 40L
3 Casing Volume: 120L
Depth to Water After Purging: Time:
Method of Purging: Grundfos Rediflow (2")
Method of Sampling:
Method of Development: GRUNDFOS 2" REDIFLO

time	intake depth (feet / metres)	pumping rate (gpm / Lpm)	cumulative volume (litres / gallons)	temp. (F / C)	pH (units)	specific conductance (µmhos/cm))	comments (odour, colour, sediment load, well condition, presence of product)
12:22	56	2.22	20	4.4	8.39	404.5	grey in colour, turbid (choc. milk), no odour
12:42	56	1.82	60	3.9	7.6	347	grey, less turbid, can't see bottom of bucket
13:31	56	3.33	220	3.7	7.4	241	light grey, turbid
14:01	56	5.0	320	3.7	7.1	224	light brown/grey, almost clear enough to see bottom of bucket
14:27	56	4.0	420	3.7	7.1	220	
14:40	56	3.33	460	3.6	7.0	216	
14:52	56	3.33	500	3.6	7.0	209	
15:03	56	4.0	540	3.6	7.0	209	
15:16	56	3.33	580	3.6	7.0	207	NTU ~ 19
15:35	56	2.90	640	3.5	7.0	204	NTU ~ 14

container size and composition	preservative	number of containers	analyses	time	laboratory

pH calibration		(choose two)			zero check setting
time	buffer solution	pH 4.0	pH 7.0	pH 10.0	
start of day:	temp. (C)				
	instrument reading				
	should read/calibrated to				
end of day:	temp. (C)				
	instrument reading				

specific conductance calibration				zero & redline check
time	KCl solution (µmhos/cm @ 25 C)	1413		
start of day:	temp. (C)			
	instrument reading			
	should read			
end of day:	temp. (C)			
	instrument reading			
	should read			

notes
USED 85 GAL DURING DRILLING - PURGED THIS WATER (320L)

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WELL CONSTRUCTION • PAGE 1

Well ID CAFN MW-01
Project Name Champagne
Project Number

Site Location Champagne
Field Personnel John Miller, K. Pfeifer,
Recorded By Katie Pfeifer

Permit Number
Installation Date(s) March 28/29, 2017
Drilling Method Hollow stem auger
Drilling Contractor Midnight Sun Drilling Inc
Driller Willy Palahicky
Drilling Fluid water
Fluid Loss During Drilling 85 Litres (Gallons)

Materials Used

Riser Pipe: Length _____ metres/feet
Diameter _____ cm/inches
Construction ☑ PVC schedule 40
☐ Stainless Steel
☐ Galvanized Steel

Slotted Area: Length 20 metres/feet
Diameter 2 cm/inches
Construction ☑ PVC schedule 40
☐ Stainless Steel
☐ Galvanized Steel
3 BOTTOM 10' PRE-SCREEN STAINLESS
Silt Trap Used ☐ YES ☒ NO
Filter Sock Used ☐ YES ☒ NO

Bottom End Cap: ☐ Male ☐ Female
☒ PVC schedule _____
☐ Stainless Steel
☐ Galvanized Steel

Top Cap: ☐ Male ☐ Female ☐ Slip ☒ J Plug
☐ PVC schedule _____
☐ Stainless Steel
☐ Galvanized Steel

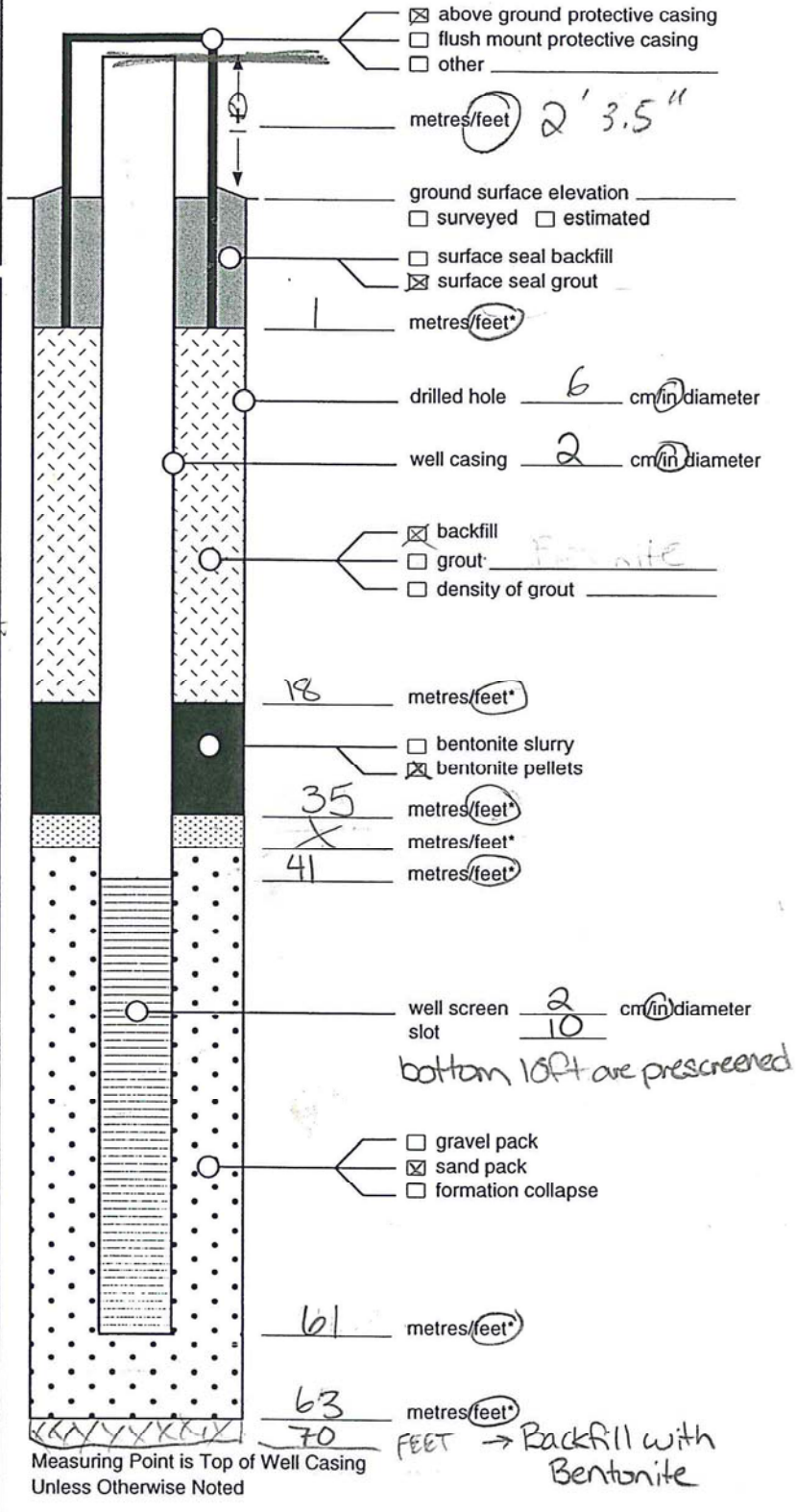
Protective Casing: Length _____ metres/feet
Diameter _____ cm/inches
Construction ☐ Cast Aluminum
☐ Cast Steel
☐ Steel

Casing Installation: ☐ YES (see page 2)
☐ NO

Sandpack:
Coarse Sand: ____ bags of 50 kg/lb per bag Sand Gradation 10-20
Fine Sand: ____ bags of ____ kg/lb per bag Sand Gradation ____

Seal:
Bentonite Pellets: ____ bags of 50 kg/lb per bag Type 3/8" Holeplug
Bentonite Slurry: ____ bags of ____ kg/lb per bag Type ____

Grout:
Cement: 1 bags of ____ kg/lb per bag Type ____
Bentonite: ____ bags of ____ kg/lb per bag Type ____



Measuring Point is Top of Well Casing Unless Otherwise Noted

*Depth Below Ground Surface

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SAMPLE/CORE LOG OF BORING

Borehole ID CAFN MW01 | Project Name | Page 1 of 2
Date March 28, 2017 | Project Number
Recorded By Katie Heiter

Sample/Core Depth (m/ft. below ground surface) From	To	Core Recovery m/ft.	Time/Hydraulic Pressure or Blows/24 cm/in.	Sample/Core Description	Unified Soils Class.	Sample Number
0	5			silty, clay clumps, grey-brown		1
5	7'	1.5'	56	grey, iron oxid. staining, silty,		2
			(11,11,12,14)	platey texture, fine sand		
10	12	1.8	37	platey, more moisture, silty, very fine sand		3
				↳iron staining at 10 ft for 2 inches		
14				moist silt in cuttings		
15	17	15'	38	→16.5 - 15 very moist silt, iron staining at interface btwn moist & dry at 16.5.		4
				→ confining layer, more dense at 16.5		
				→17 - 16.5' fine sand, homogen., light grey, dry		
	19			moist silt in cuttings		
20	22	13"	20	→ ~~20~~ - wet silty sand,		5
				around 21 ft it is more silty		
				21-22 it is wetter and sandier		
25	27	24"	20	moist sand, homogeneous, grey		6
				25-26 ft is wetter (saturated)		
30	32	17"	33	wet homog. sand, light grey, med coarse		7
35	37	10"	14	wet coarse sand, heterogen., sub rounded to		8
				rounded gravels (coarse & fine)		
40	42	16"	35	coarse sand (40-41') pea gravel (41-42)		9
45	47	1.5 ft	29	homog. coarse sand, light grey, unoxidized		10
50	52	1 ft	28	at 51' an inch of silt/fine sand (lense)		11
				51-52 is med sand, at 52' coarse sand (2")		
				wet, light grey		

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SAMPLE/CORE LOG OF BORING

Borehole ID CAFN MW-01
Date March 29, 2017
Recorded By Katie Pfeifer
Project Name
Project Number

Sample/Core Depth (m/ft) below ground surface) From	To	Core Recovery m/ft	Time/Hydraulic Pressure or Blows/24 cm/in	Sample/Core Description	Unified Soils Class.	Sample Number
55				added 80 gal of water (20+20+15+20) +15		
60	62	8"	28	61.5' contact btwn sand & matrix		
				fine grained matrix w. large gravel/cobbles, grey in colour, granite & schist		12
70	72	21"	129	REFUSAL, grey, fines w. cobbles, glacial till (70.5-72)		13
				70-70.3 coarse sand		
				70.3-70.5 med. sand		