

MONITORING WELL ID: MW16-05



Well Type: Groundwater Monitoring Well

Project Location: Watson Lake Airport - AEC 32, YT

Drilling Contractor: Omega Environmental Drilling Ltd.

Drilling Equipment/Method: Sonic

Well Location: Downgradient Tank B, MW16-O

Project Name/No.: [REDACTED]

Client: PWGSC

Engineer/Geologist: [REDACTED]

Drill Date: November 12, 2016 **Page:** 1 of 7

Depth (ft/m)	Symbol	Soil / Sediment Description	Sample Type	% Recovery	Sample Analyzed	Sample ID	Headspace (PID)					Well Construction	Remarks
							0	500	1000	1500	2000		
ft m													
-2													
-1													
0		Ground Surface											
1		SAND Brown, fine to medium SAND with some fine gravel and trace silt. Loose, dry, staining and odours not observed.		90	N	MW16-05 (0.2)	0.2						Sand
2		Siltier, compact below 1.6m.											
3	1												
4				90	N	MW16-05 (1.2)	0.4						
5													
6	2												
7				90	N	MW16-05 (2.0)	0.5						
8		GRAVEL Cobble gravel.											
9		SAND Brown, fine to medium SAND with some to trace silt and trace fine gravel. Compact, dense, moist, staining and odours not observed.											
10	3			100	N	MW16-05 (3.0)	0.5						
11													
12													
13	4												
14				110	N	MW16-05 (4.0)	0.4						

Date of Water Level: November 14, 2016
Water Level (from TOC): 30.824

Well-Borehole Diameter: 150mm (6")
Well Casing Diameter: 50mm (2")
Well Casing Material: Schedule 40 PVC
Well Screen Slot Size: 10 Slot

Depth of Well (TOC): 34.653

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							0	500	1000	1500	2000		
15		SAND Brown, fine to medium SAND with some silt and trace to no gravel. Dense, moist, staining and odours not observed.											
16	5												
17			110	N		MW16-05 (5.0)							
18		Silty SAND Brown and grey silty SAND with trace coarse gravel. Dense, moist, low plasticity, no odours observed.											
19		Wet below 6.5m.											
20	6												
21			105	N		MW16-05 (6.0)							
22													
23													
24		SAND Grey, fine to medium SAND with trace silt and trace gravel. Very dense, dry, odours not observed.											
25		Trace orange staining at 7.6m.											
26													
27	8												
28		SAND Brown, fine to medium SAND. Compact, moist, staining and odours not observed.											
29			115	N		MW16-05 (8.0)							
30		SAND Brown and grey, fine to medium SAND with some silt and trace gravel. Dense, moist, low odours, staining not observed.											
31													
32		SAND Grey, fine to medium SAND with some silt and trace fine to medium gravel. Compact, dense, dry, odours not observed. Some mottling observed within the silts.											
	9												
			105	N		MW16-05 (9.0)							

Perched @ 6.5m

Bentonite

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							0	500	1000	1500	2000		
33		SAND Grey, fine to medium SAND with some silt and trace fine to medium gravel. Compact, dense, dry, odours not observed. Some mottling observed within the silts.											
34													
35													
36	11			105	Y	MW16-05 (10.0)		4.7					
37													
38													
39													
40	12												
41		SAND Grey, fine to medium SAND with some silt and trace fine to medium gravel. Compact, dense, dry, staining and odours not observed. Decreasing gravel below 13.0m.											
42													
43	13												
44													
45													
46	14												
47													
48													
49	15												

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Depth (ft/m)	Symbol	Soil / Sediment Description	Sample Type	% Recovery	Sample Analyzed	Sample ID	Headspace (PID)					Well Construction	Remarks
							0	500	1000	1500	2000		
50		SAND Grey, fine to medium SAND with some silt and trace fine to medium gravel. Compact, dense, dry, staining and odours not observed.					0.4						
51		Decreasing gravel below 13.0m.											
52	16	SAND Brown with orange staining, fine to medium SAND with trace silt and gravel. Compact, moist, low plasticity, odours not observed.					0.2						
53													
54													
55													
56	17	SAND Brown, fine to medium SAND with some to trace silt and trace fine to coarse gravel. Compact, dense, moist, low to no plasticity, odours not observed.					0.7						
57													
58													
59	18	SAND Brown, fine to medium SAND with some to trace silt and trace fine to coarse gravel. Compact, dense, moist, low to no plasticity, odours not observed.					0.7						
60													
61		SAND and GRAVEL Brown, fine to coarse SAND with fine gravel. Loose, dry, staining and odours not observed.					0.2						
62													
63	19	Silty SAND Brown, fine to medium silty SAND to SAND with some silt and trace fine to medium gravel. Dense, moist, staining and odours not observed.					0.5						
64													
65		SAND Brown, fine to medium SAND with trace silt and trace fine gravel. Loose, moist, staining and odours not observed.					0.2						
66	20	SAND Brown, fine to coarse SAND with some silt and fine to medium gravel. Slightly dense, moist, staining and odours not observed.					0.4						
67													

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							0	500	1000	1500	2000		
68		SAND Brown, fine to coarse SAND with some silt and fine to medium gravel. Slightly dense, moist, staining and odours not observed.											
69	21			120	N	MW16-05 (21.0)	0.6						
70		SAND Brown, fine to medium SAND with trace silt and some gravel. Loose, dry, staining and odours not observed.											
72	22			120	N	MW16-05 (22.0)	0.3						
74		SAND and GRAVEL Brown, fine to coarse SAND and fine to coarse GRAVEL. Loose, moist, staining and odours not observed.											
76	23			90	N	MW16-05 (23.0)	0.5						
78		SAND Brown medium SAND. Loose, dry, staining and odours not observed.											
79	24			90	N	MW16-05 (24.0)	0.2						
80		SILT Brown, medium SAND. Soft, loose, dry, staining and odours not observed.											
82	25			90	N	MW16-05 (25.0)	0.1						
83													
84													

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							0	500	1000	1500	2000		
85	26	SILT Brown, medium SAND. Soft, loose, dry, staining and odours not observed.					0.1						
86			90	N		MW16-05 (26.0)							
87													
88													
89	27	SILT Brown SILT with trace fine sand. Very stiff, moist, low plasticity, no odours observed.											
90													
91													
92	28		95	N		MW16-05 (28.0)	0.2						
93													
94													
95	29	COAL SEAM Black COAL (charcoal) SEAM with trace silt. Dense, dry, staining and odours not observed.					0.3						
96			95	N		MW16-05 (29.0)							
97													
98													
99	30	SILT Grey SILT with trace fine sand and trace coal. Stiff, dry, staining and odours not observed.					0.4						
100							0.2						
101		No COAL below 30.0m. Wet below 30.0m.	100	Y		MW16-05 (30.0)							
102	31						0.2						
			100	N		MW16-05 (31.0)							

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							0	500	1000	1500	2000		
103	32	SILT Grey SILT with trace fine sand. Stiff, dense, staining and odours not observed. Dense below 31.7m.										Sand and Well Screen	
105				100	N	MW16-05 (32.0)	0.1						
107													
109				Moist below 32.8m.									
111													
113	33	Moist below 32.8m.										Bentonite	
115				100	N	MW16-05 (33.0)	0.9						
117													
119	34	Very dense below 34.0m. Dry below 34.3m.											
121				100	N	MW16-05 (34.0)	1.0						
123													
125	35	SAND Brown fine to medium SAND, trace to no silt. Compact, dry, staining and odours not observed.											
127				100	N	DUP G							
129	36												
131				100	N	MW16-05 (34.5)	0.2						
133	37												
135				100	N	MW16-05 (36.0)	0.2						

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