

MONITORING WELL ID: MW16-13



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: Tank Farm C, MW16-E

Project Name/No.: [REDACTED]
 Client: PWGSC
 Engineer/Geologist: [REDACTED]
 Drill Date: November 26, 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 and GRAVEL Brown, fine to coarse SAND and fine GRAVEL. Loose, dry, low odours, staining not observed.	G	85	Y	MW16-13 (0.5)							Concrete
2							79.1						
3		SAND Brown, very fine to medium SAND with some silt and trace fine gravel. Dense, dry, low odours, staining not observed.	G	85	N	MW16-13 (1.0)							Bentonite
4							61.4						
5													
6													
7		SAND and GRAVEL Brown, fine to coarse SAND and fine GRAVEL. Loose, dry, low to no odours, staining not observed.	G	85	N	MW16-13 (2.0)							
8							2.1						
9													
10													
11			G	100	Y	MW16-13 (3.0)							Cuttings and Slough
12							1.5						
13													
14			G	100	N	MW16-13 (4.0)							
15							1.3						

Date of Water Level: November 30, 2016
 Water Level (from TOC): 34.342

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): 37.672

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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		
16	5		G	105	N	MW16-13 (5.0)	1.1						
17													
18	6	SAND Brown, fine to medium SAND with some coarse sand and fine to medium gravel, trace silt. Loose, dry, staining and odours not observed.	G	100	N	MW16-13 (6.0)	3.6						
19													
20	7		G	120	N	MW16-13 (7.0)	1.1						
21													
22	8		G	120	N	MW16-13 (8.0)	1.2						Cuttings and Slough
23													
24	9	SAND Brown, fine to medium SAND with some fine gravel and trace silt. Loose, dry, staining and odours not observed.	G	105	N	MW16-13 (9.0)	2.1						
25													
26	10		G	105	N	MW16-13 (10.0)	2.6						
27													
28													
29													
30													
31													
32													
33													
34													

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							0	500	1000	1500	2000		
35		SAND Brown, fine to medium SAND with some fine gravel and trace silt. Loose, dry, staining and odours not observed.											
36	11	Silty SAND Brown, silty fine to medium SAND, laminated. Dense, dry, staining and odours not observed.	G	105	N	MW16-13 (11.1)	1.1						
37		SAND Brown, fine to medium SAND with some fine gravel. Loose, dry, staining and odours not observed.											
38		SAND Brown, fine to medium SAND with some fine gravel. Loose, dry, staining and odours not observed.											
39	12	SAND Brown, fine to medium SAND with trace coarse sand and fine gravel. Loose, dry, staining and odours not observed.	G	95	N	MW16-13 (12.0)	1.4						
40		SAND Brown, fine to medium SAND with trace coarse sand and fine gravel. Loose, dry, staining and odours not observed.											
41		SAND Brown, fine to medium SAND with trace coarse sand and fine gravel. Loose, dry, staining and odours not observed.											
42		SAND Brown, fine to medium SAND with trace coarse sand and fine gravel. Loose, dry, staining and odours not observed.											
43	13	SAND Brown, fine to medium SAND with trace coarse sand and fine gravel. Loose, dry, staining and odours not observed.	G	95	N	MW16-13 (13.0)	1.6						
44		SAND Brown, fine to medium SAND with trace coarse sand and fine gravel. Loose, dry, staining and odours not observed.											
45		SAND Brown, fine to medium SAND with trace coarse sand and fine gravel. Loose, dry, staining and odours not observed.											
46	14	SAND Brown, fine to medium SAND with trace coarse sand and fine gravel. Loose, dry, staining and odours not observed.	G	95	N	MW16-13 (14.0)	1.2						
47		SAND Brown, fine to medium SAND with trace coarse sand and fine gravel. Loose, dry, staining and odours not observed.											
48		SAND Brown, fine to medium SAND with trace coarse sand and fine gravel. Loose, dry, staining and odours not observed.											
49	15	SAND Brown, fine to medium SAND with trace silt and trace fine gravel. Loose, dense, staining and odours not observed.	G	80	N	MW16-13 (15.0)	1.3						
50		SAND Brown, fine to medium SAND with trace silt and trace fine gravel. Loose, dense, staining and odours not observed.											
51		SAND Brown, fine to medium SAND with trace silt and trace fine gravel. Loose, dense, staining and odours not observed.											
52	16	SAND Brown, fine to medium SAND with trace silt and trace fine gravel. Loose, dense, staining and odours not observed.											

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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		
53	17	SAND Brown, fine to medium SAND with trace silt and trace fine gravel. Loose, dense, staining and odours not observed.	G	80	N	MW16-13 (16.0)	1.9					Cuttings and Slough	
54													
55	18	Silty SAND and GRAVEL Brown, silty very fine to medium SAND and fine to medium GRAVEL. Compact, dense, moist, staining and odours not observed.	G	80	N	MW16-13 (17.0)	1.0					Cuttings and Slough	
56													
57	19	Silty SAND and GRAVEL Brown, silty SAND and GRAVEL. Dense, moist, staining and odours not observed.	G	75	N	MW16-13 (18.0)	1.3					Bentonite	
58													
59	20	SAND and GRAVEL Brown, very fine to medium SAND and fine to coarse GRAVEL. Slightly dense to loose, dry, staining and odours not observed.	G	75	N	MW16-13 (19.0)	1.8					Cuttings and Slough	
60													
61	21	Cobbles at 20.0m.	G	75	N	MW16-13 (20.0)	1.5					Cuttings and Slough	
62													
63	21	Silty SAND Brown, silty fine to medium SAND with some fine to coarse GRAVEL. Slightly dense, moist, staining and odours not observed.	G	80	N	MW16-13 (21.0)	1.9					Cuttings and Slough	
64													
65													
66													
67													
68													
69													
70													
71													

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							0	500	1000	1500	2000		
72	[Symbol]	SAND and GRAVEL Brown, fine to medium SAND and fine GRAVEL. Loose, dry, staining and odours not observed.	G	80	N	MW16-13 (22.0)	1.1					[Construction]	Cuttings and Slough
73													
74	[Symbol]		G	80	N	MW16-13 (23.0)	1.3				[Construction]	Cuttings and Slough	
75													
76	[Symbol]	Silty SAND and GRAVEL Brown, silty fine to coarse SAND and fine GRAVEL to SAND and GRAVEL with some silt (washed). Loose, wet to moist, staining and odours not observed.	G	65	N	MW16-13 (24.0)	1.6				[Construction]	Cuttings and Slough	
77													
78	[Symbol]	SAND and GRAVEL Brown, fine to medium SAND and fine to medium GRAVEL with trace silt. Loose, dry, staining and odours not observed.	G	65	N	MW16-13 (25.0)	1.1				[Construction]	Perched @ 25.8m	
79													
80	[Symbol]	Sand and Gravel Brown, medium to very coarse SAND and fine to medium GRAVEL (washed) with some silt. Loose, wet, staining and odours not observed.	G	65	Y	MW16-13 (26.0)	7.0				[Construction]	Bentonite	
81													
82	[Symbol]		G	85	N	MW16-13 (27.0)	0.6				[Construction]	Cuttings and Slough	
83													

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							0	500	1000	1500	2000						
90	28	SAND and GRAVEL Brown, fine to very coarse SAND and fine gravel with some silt. Loose to slightly compact, moist, staining and odours not observed. Coal seam (charcoal) (<10cm) at 28.0m.	G	85	N	MW16-13 (28.0)	2.6					[Cross-hatched pattern]	Cuttings and Slough				
91							92	93	94	95	96			97	98	99	00
93	29	SAND and GRAVEL Brown, fine to coarse SAND and fine GRAVEL with trace silt. Loose, dry, low odours, staining not observed.	G	85	N	MW16-13 (29.0)	8.8					[Cross-hatched pattern]	Cuttings and Slough				
94							95	96	97	98	99			00	01	02	03
97	30	Sandy SILT Brown, very fine to fine sandy SILT, laminated. Dense, moist, staining and odours not observed.	G	90	N	MW16-13 (30.2)	0.4					[Cross-hatched pattern]	Bentonite				
98							99	00	01	02	03			04	05	06	07
102	31	SAND Brown, fine SAND with trace silt. Loose, moist, staining and odours not observed.	G	90	N	MW16-13 (31.5)	0.4					[Cross-hatched pattern]	Bentonite				
103							104	105	106	107	108						
104	32	Sandy SILT Brown, very fine to fine sandy SILT with trace orange staining. Stiff, wet, odours not observed.	G	90	Y	MW16-13 (32.3)	0.3					[Cross-hatched pattern]	Silica Sand and Well Screen				
105							106	107	108								

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							0	500	1000	1500	2000		
09	[Symbol]	Sandy SILT Brown, very fine to fine sandy SILT with trace orange staining. Stiff, wet, odours not observed.	G	85	N	MW16-13 (33.0)	4.3					[Well Construction Diagram]	Silica Sand and Well Screen
10													
11	[Symbol]	SILT Brown SILT with trace fine to medium sand. Hard, moist, staining and odours not observed.	G	85	N	MW16-13 (34.0)	2.5						
12													
13	[Symbol]	Sandy SILT Brown, very fine sandy SILT with gravel (till). Dense, compact, dry to moist, staining and odours not observed.	G	85	Y	MW16-13 (35.0)	28.9						
14													
15	[Symbol]	Sandy SILT Brown, very fine sandy SILT and fine GRAVEL (till). Very dense, dry to moist, low plasticity, odours not observed.	G	120	N	MW16-13 (36.0)	2.2						
16													
17	[Symbol]	Sandy SILT Brown, very fine sandy SILT and fine GRAVEL (till). Very dense, dry to moist, low plasticity, odours not observed.	G	120	Y	MW16-13 (37.0)	1.6					[Well Construction Diagram]	Slough
18													
19													
20													
21													
22													
23													
24													
25													
26													

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