

re: Sentinel Well Groundwater Monitoring Program
Kanata North Urban Expansion
Proposed Residential Development
March Road - Ottawa

to: Novatech Engineering Consultants - **Mr. John Riddell** - J.Riddell@novatech-eng.com

date: October 31, 2019

file: PG3975-MEMO.01 Revision 2

Further to your request, Paterson Group (Paterson) conducted a sentinel well groundwater monitoring program at the Kanata North Urban Expansion Area (KNUEA) along March Road at the aforementioned site. A summary of the field program and results have been provided below.

Background Information

Paterson completed a Hydrogeological Existing Conditions Report (PH2223-3R4 dated May 18, 2016) for the KNUEA, as per the scope set out by the KNUEA Environmental Management Plan (EMP) Terms of Reference. Based on Paterson's findings, it was recommended in the Existing Conditions Report, and subsequently, the EMP, that a sentinel well groundwater monitoring program be completed prior to development in order to establish baseline conditions as a basis for evaluating potential impacts once construction commenced.

The field program consisted of the installation of ten monitoring wells at five locations on December 15 to 21, 2016. Each location consisted of a pair of monitoring wells extending to a depth of 6 and 12 m below ground surface (bgs). The wells were distributed in a manner to provide general coverage of the proposed development taking into consideration site features and access.

Field Survey

The locations of all monitoring wells, as well as geodetic elevations of the ground surface elevation at all monitoring well locations, were provided by Novatech Engineering Consultants. The survey was performed using high accuracy (0.02 m) GPS survey equipment. The locations are presented on Drawing PG3975-1 Test Hole Location Plan attached to the current report.

Subsurface Profile

The subsurface profile at the monitoring well locations generally consisted of overburden thickness ranging from 0.7 to 3.0 m followed by poor to excellent quality limestone with some shale partings. Reference should be made to the Soil Profile and Test Data sheets attached to this report for specific details of the overburden and bedrock profile encountered at the monitoring well locations.

Monitoring Well Installation

Typical monitoring well construction details are described below:

- 1.5 m of slotted 51 mm diameter PVC screen at the base of the aforementioned boreholes.
- 51 mm diameter PVC riser pipe from the top of the screen to ground surface.
- No.3 silica sand backfill within annular space around screen.
- Bentonite hole plug placed directly above PVC slotted screen extending to the existing ground surface.
- The 51 mm diameter PVC riser extending above the ground surface was covered with a protective steel monitoring well casing.

Specific details of the installation of each monitoring well are further included in the Soil Profile and Test Data Sheets attached to the current report.

Sentinel Well Groundwater Monitoring

On December 22, 2016, each monitoring well at the subject site was equipped with a Van Essen Instrument Mini-Diver Water Level Logger to accurately monitor fluctuations in the groundwater levels. In addition, a Van Essen Instruments Baro-Diver was installed in BH2-DW to monitor the changes in atmospheric pressure. The Mini-Divers were programmed to continuously measure and record groundwater levels throughout the subject site at a fixed rate of 1 reading every 30 minutes for a period of 29 months. The installation depths and Mini-Diver ID for each respective monitoring well is summarized in Table 1 below.

On October 23, 2019, a raw water sample was taken at each sentinel well location within the subject site for the purpose of obtaining baseline water quality information prior to the commencement of construction activities and in accordance with Paterson Report PH2223-MEMO.01 dated June 24, 2016. The samples were submitted for analytical testing (subdivision package and E.Coli/Total Coliforms) at an accredited laboratory (Eurofins Environmental Testing). The data loggers were re-deployed at the monitoring well locations on October 23, 2019 to provide further monitoring with a similar rate of data recording and depth of monitoring.

The results of the groundwater fluctuations and correlated precipitation events for each monitoring well location between December 22, 2016 and May 16, 2019 have been summarized in Figure 1 through Figure 5 attached to the current memo. The laboratory analyses reports for the water samples obtained from the sentinel wells at the subject site have been attached to the current memo.

Table 1 - Water Level Logger Summary - Kanata North		
Monitoring Well	Mini-Diver ID	Depth (m BGS)
BH1-DW	W0117	9.05
BH1-SW	W0155	5.84
BH2-DW	T2446	9.16
BH2-SW	T2452	5.86
BH3-DW	T2438	10.00
BH3-SW	V3833	5.71
BH4-DW	V3856	9.08
BH4-SW	V3662	5.75
BH5-DW	V3894	9.17
BH5-SW	V3816	5.70

Discussion

The data presented in Figure 1 through Figure 5 show the difference in seasonal groundwater elevation within the shallow wells at each well location vary from 1.1 to 2.3 m bgs, while the deep wells varied from 1.4 to 2.8 m bgs. The seasonal low and high groundwater elevations at each well location have been summarized in Table 2 below. Water sample results were not compared to provincial water quality guidelines or aesthetic objectives, but rather to establish baseline water quality information prior to the commencement of construction and in accordance with Paterson Report PH2223-MEMO.01.

Table 2 - Seasonal Groundwater Elevations - Kanata North				
Monitoring Well	Ground Surface Elevation	Low Groundwater Elevation	High Groundwater Elevation	Difference in Groundwater Depth
BH1-SW	73.08	71.8 m	72.9 m	1.1 m
BH1-DW	73.08	71.9 m	73.3 m	1.4 m
BH2-SW	82.95	81.0 m	83.3 m	2.3 m
BH2-DW	82.95	80.7 m	83.0 m	2.3 m
BH3-SW	88.84	85.4 m	87.7 m	2.3 m
BH3-DW	88.84	83.6 m	86.4 m	2.8 m
BH4-SW	89.34	87.3 m	89.6 m	2.3 m
BH4-DW	89.34	88.2 m	90.5 m	2.3 m
BH5-SW	84.22	82.0 m	84.0 m	2.0 m
BH5-DW	84.22	82.4 m	85.1 m	2.7 m

Conclusions

Based on the results from the sentinel well monitoring program, groundwater levels were measured in both the elevation of the overburden layers and shallow bedrock, illustrating similar fluctuation patterns across the site. This suggests the shallow and deeper bedrock units are considered hydraulically connected. At the majority of the locations, groundwater elevations were within the elevation of the overburden layers, or above ground surface. This suggests that the upper bedrock layer is fully saturated, and that overburden soils are acting as a confining layer. Based on our results from the sentinel well monitoring program and previous investigations, it is our understanding that the long-term groundwater table at the site boundaries are within the overburden and/or shallow bedrock.

Additional Monitoring - Water Wells

Subsequent to the sentinel well groundwater monitoring program at the subject site, a baseline well survey program was implemented for the proposed development area of the KNUEA as recommended in Paterson Report PH2223-3R4 and noted in the Kanata North Community Design Plan dated June 28, 2016.

The overall monitoring area will consist of a 500 m buffer around the KNUEA and will include the majority of lots within adjacent country estate lot subdivisions. The well monitoring program will be comprised of sampling residential wells, for a standard 'subdivision package' suite of parameters and a verbal interview regarding the details of the existing well supply and on-site sewage system.

Mr. John Riddell
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We trust that this information satisfies your requirements.

Best Regards,

Paterson Group Inc.



Nicholas Zulinski, P.Geo.



Michael S. Killam, P.Eng.

Attachments

- Soil Profile and Test Data Sheets
- Figure 1 to Figure 5 - Groundwater Monitoring Levels
- Eurofins Certificate of Analysis
- Drawing PG3975-1 - Test Hole Location Plan

DATUM Ground surface elevations provided by Novatech Consulting Engineering Ltd.

REMARKS Northing 5025679.5; Easting 348531.2

BORINGS BY CME 55 Power Auger

DATE November 15, 2017

FILE NO. PG3975

HOLE NO. BH 1A-16

SOIL DESCRIPTION	STRATA PLOT	SAMPLE				DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				Monitoring Well Construction	
		TYPE	NUMBER	RECOVERY %	N VALUE or RQD			20	40	60	80		
GROUND SURFACE						0	73.08						
OVERBURDEN						1	72.08						
	2.21					2	71.08						
BEDROCK: Good to poor quality, grey limestone, some shale partings		RC	1	100	85	3	70.08						
		RC	2	100	40	4	69.08						
		RC	3	100	45	5	68.08						
	6.12					6	67.08						
End of Borehole (GWL @ 0.85m-Dec. 20, 2016)													

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

DATUM Ground surface elevations provided by Novatech Consulting Engineering Ltd.

REMARKS Northing 5025679.5; Easting 348531.2

BORINGS BY CME 55 Power Auger

DATE November 15, 2017

FILE NO. PG3975

HOLE NO. BH 1B-16

SOIL DESCRIPTION	STRATA PLOT	SAMPLE				DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				Monitoring Well Construction	
		TYPE	NUMBER	RECOVERY %	N VALUE or RQD			20	40	60	80		
GROUND SURFACE						0	73.08						
OVERBURDEN						1	72.08						
						2	71.08						
	2.36	RC	1	100	75	3	70.08						
		RC	2	100	40	4	69.08						
		RC	3	100	60	5	68.08						
		RC	4	100	95	6	67.08						
BEDROCK: Fair to excellent quality, grey limestone, some shale partings		RC	5	100	66	7	66.08						
		RC	6	100	86	8	65.08						
		RC	7	100	100	9	64.08						
						10	63.08						
						11	62.08						
	12.02					12	61.08						
End of Borehole (GWL @ 0.70m-Dec. 20, 2016)													

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

DATUM Ground surface elevations provided by Novatech Consulting Engineering Ltd.

REMARKS Northing 5025146.3; Easting 348117.8

BORINGS BY CME 55 Power Auger

DATE November 16, 2017

FILE NO. PG3975

HOLE NO. BH 2B-16

SOIL DESCRIPTION	STRATA PLOT	SAMPLE				DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				Monitoring Well Construction	
		TYPE	NUMBER	RECOVERY %	N VALUE or RQD			20	40	60	80		
GROUND SURFACE						0	82.95						
OVERBURDEN						1	81.95						
						2	80.95						
						3	79.95						
			RC	1	100		4	78.95					
			RC	2	100	67	5	77.95					
			RC	3	100	66	6	76.95					
			RC	4	100	61	7	75.95					
BEDROCK: Fair to excellent quality, grey limestone, some shale partings						8	74.95						
						9	73.95						
						10	72.95						
						11	71.95						
			RC	6	100	95	12	70.95					
End of Borehole						12	70.95						
(GWL @ 1.12m-Dec. 20, 2016)													

3.02

12.17

20 40 60 80 100

Shear Strength (kPa)

▲ Undisturbed △ Remoulded

DATUM Ground surface elevations provided by Novatech Consulting Engineering Ltd.

FILE NO.
PG3975

REMARKS Northing 5025257.5; Easting 347719.2

HOLE NO.
BH 3A-16

BORINGS BY CME 55 Power Auger

DATE November 18, 2017

SOIL DESCRIPTION	STRATA PLOT	SAMPLE				DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				Monitoring Well Construction	
		TYPE	NUMBER	RECOVERY %	N VALUE or RQD			20	40	60	80		
GROUND SURFACE						0	88.84						
OVERBURDEN						1	87.84						
	1.73					2	86.84						
		RC	1	100	67	3	85.84						
		RC	2	100	86	4	84.84						
BEDROCK: Fair to good quality, grey limestone, some shale partings		RC	3	100	68	5	83.84						
	6.02					6	82.84						
End of Borehole (GWL @ 3.27m-Dec. 20, 2016)													

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

DATUM Ground surface elevations provided by Novatech Consulting Engineering Ltd.

REMARKS Northing 5025257.5; Easting 347719.2

BORINGS BY CME 55 Power Auger

DATE November 18, 2017

FILE NO.
PG3975

HOLE NO.
BH 3B-16

SOIL DESCRIPTION	STRATA PLOT	SAMPLE				DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				Monitoring Well Construction	
		TYPE	NUMBER	RECOVERY %	N VALUE or RQD			20	40	60	80		
GROUND SURFACE						0	88.84						
OVERBURDEN						1	87.84						
	1.73					2	86.84						
		RC	1	100	81	3	85.84						
		RC	2	95	41	4	84.84						
BEDROCK: Good to fair quality, grey limestone, some shale partings		RC	3	100	58	5	83.84						
		RC	4	100	58	6	82.84						
		RC	5	100	100	7	81.84						
- excellent to good quality by 7.5m depth		RC	6	100	93	8	80.84						
		RC	7	100	81	9	79.84						
						10	78.84						
						11	77.84						
End of Borehole	12.02					12	76.84						
(GWL @ 4.01m-Dec. 20, 2016)													

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

DATUM Ground surface elevations provided by Novatech Consulting Engineering Ltd.

REMARKS Northing 5024849.7; Easting 347680.5

BORINGS BY CME 55 Power Auger

DATE November 16, 2017

FILE NO. PG3975

HOLE NO. BH 4B-16

SOIL DESCRIPTION	STRATA PLOT	SAMPLE				DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				Monitoring Well Construction	
		TYPE	NUMBER	RECOVERY %	N VALUE or RQD			○ Water Content %					
								20	40	60	80		
GROUND SURFACE						0	89.34						
OVERBURDEN						1	88.34						
						2	87.34						
	2.26	RC	1	100	91	3	86.34						
		RC	2	100	97	4	85.34						
		RC	3	100	98	5	84.34						
		RC	4	100	100	6	83.34						
BEDROCK: Excellent quality, grey limestone, some shale partings		RC	5	100	81	7	82.34						
		RC	6	100	88	8	81.34						
		RC	7	100	93	9	80.34						
						10	79.34						
						11	78.34						
	12.19					12	77.34						
End of Borehole (MW blocked at 0.35m depth - Dec. 20, 2016)													

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

DATUM Ground surface elevations provided by Novatech Consulting Engineering Ltd.

FILE NO.
PG3975

REMARKS Northing 5024538.9; Easting 348324.3

HOLE NO.
BH 5A-16

BORINGS BY CME 55 Power Auger

DATE November 21, 2017

SOIL DESCRIPTION	STRATA PLOT	SAMPLE				DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				Monitoring Well Construction	
		TYPE	NUMBER	RECOVERY %	N VALUE or RQD			20	40	60	80		
GROUND SURFACE						0	84.22						
OVERBURDEN	0.76					1	83.22						
		RC	1	100	75	2	82.22						
		RC	2	100	85	3	81.22						
BEDROCK: Good to excellent quality, grey limestone, some shale partings		RC	3	100	81	4	80.22						
		RC	4	97	95	5	79.22						
End of Borehole (GWL @ 0.54m-Dec. 20, 2016)	6.10					6	78.22						

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

DATUM Ground surface elevations provided by Novatech Consulting Engineering Ltd.

REMARKS Northing 5024538.9; Easting 348324.3

BORINGS BY CME 55 Power Auger

DATE November 21, 2017

FILE NO. PG3975

HOLE NO. BH 5B-16

SOIL DESCRIPTION	STRATA PLOT	SAMPLE				DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				Monitoring Well Construction	
		TYPE	NUMBER	RECOVERY %	N VALUE or RQD			20	40	60	80		
GROUND SURFACE						0	84.22						
OVERBURDEN	0.66												
BEDROCK: Fair to excellent quality, grey limestone, some shale partings		RC	1	100	71	1	83.22						
		RC	2	100	95	2	82.22						
		RC	3	100	100	3	81.22						
		RC	4	100	97	4	80.22						
		RC	5	100	100	5	79.22						
		RC	6	100	95	6	78.22						
		RC	7	100	97	7	77.22						
		RC	8	100	98	8	76.22						
End of Borehole (MW blocked at 0.60m depth - Dec. 20, 2016)	12.02					12	72.22						

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

Figure 1: BH1 - Groundwater Monitoring Levels vs Precipitation Data

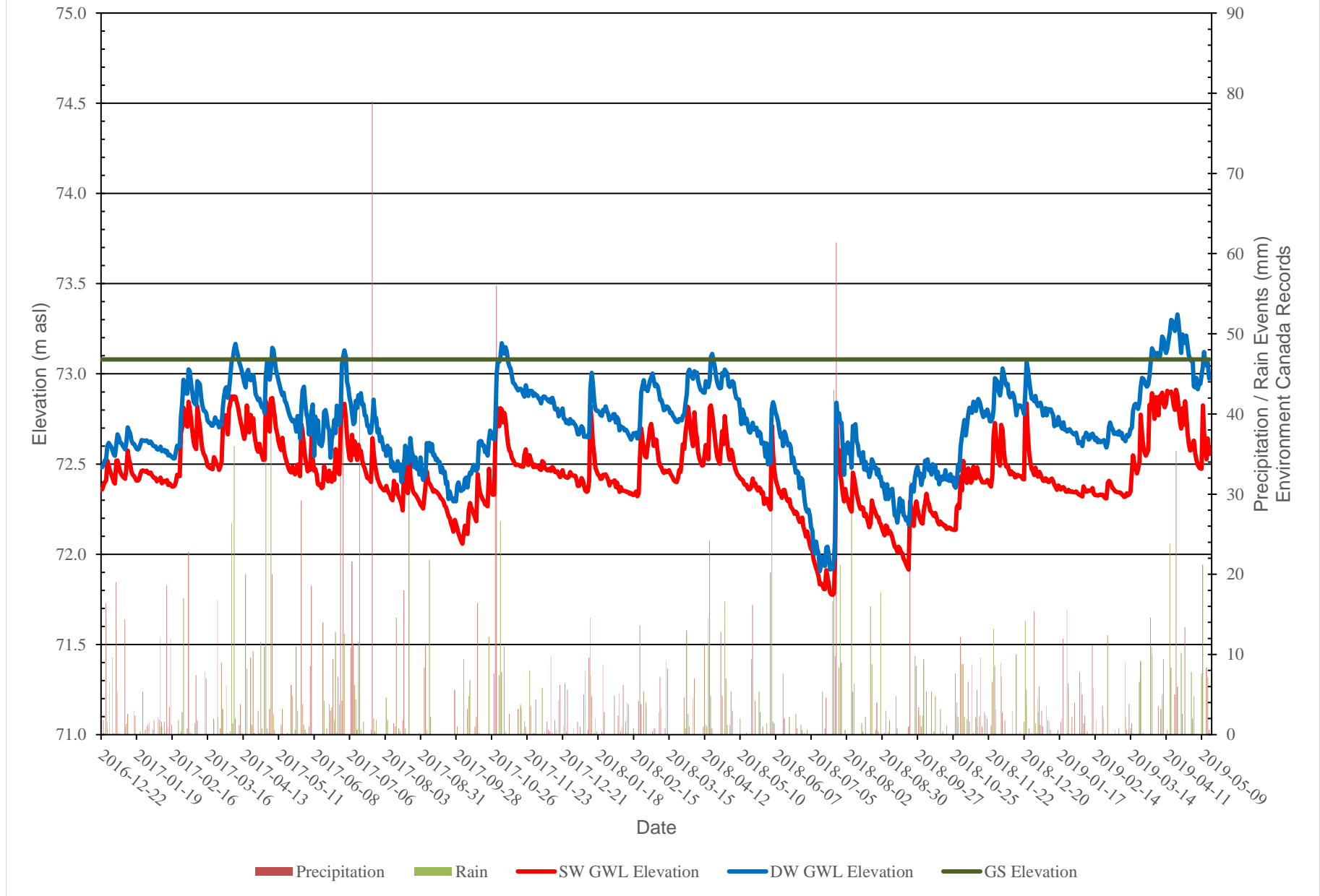


Figure 2: BH2 - Groundwater Monitoring Levels vs Precipitation Data

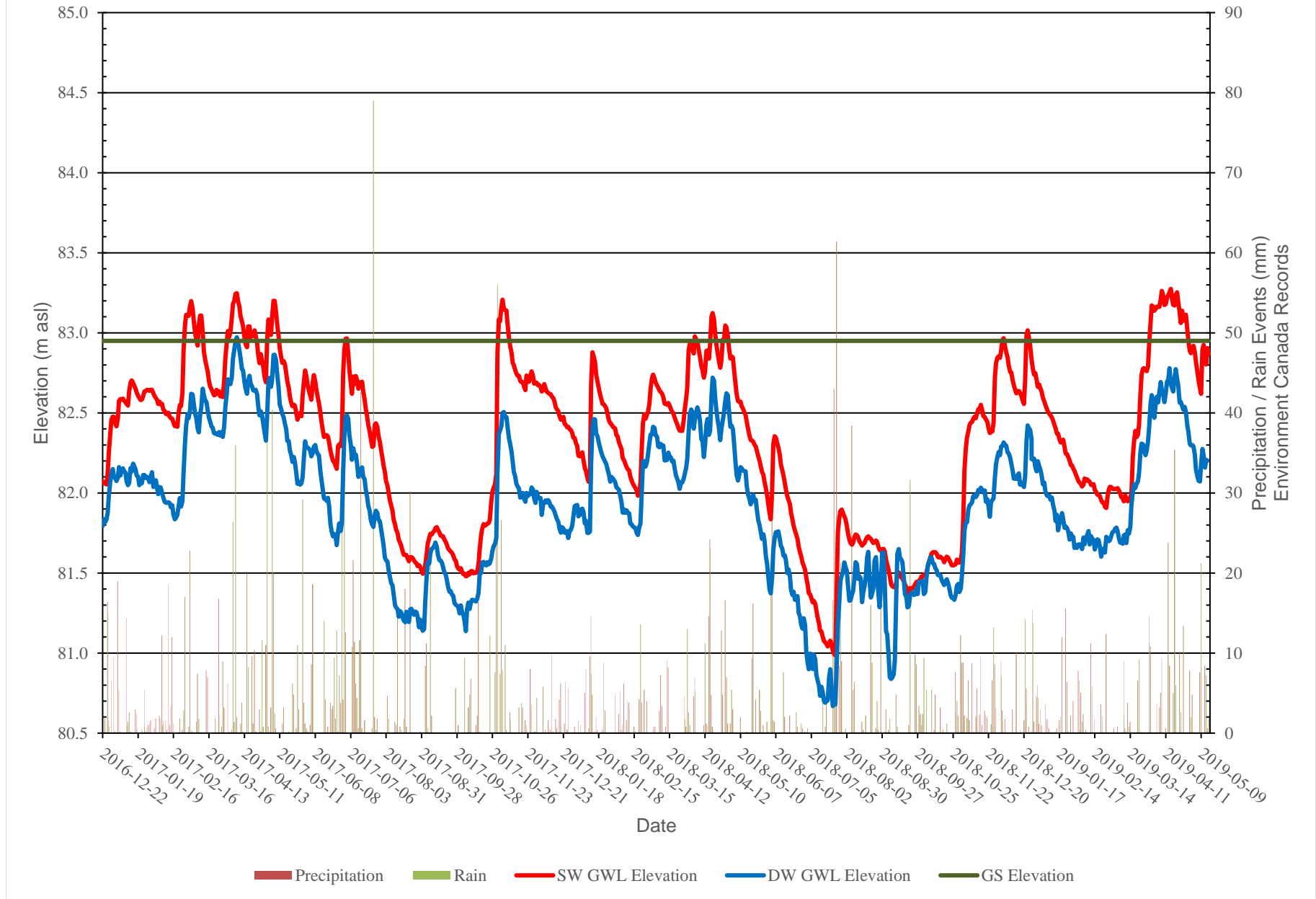


Figure 3: BH3 - Groundwater Monitoring Levels vs Precipitation Data

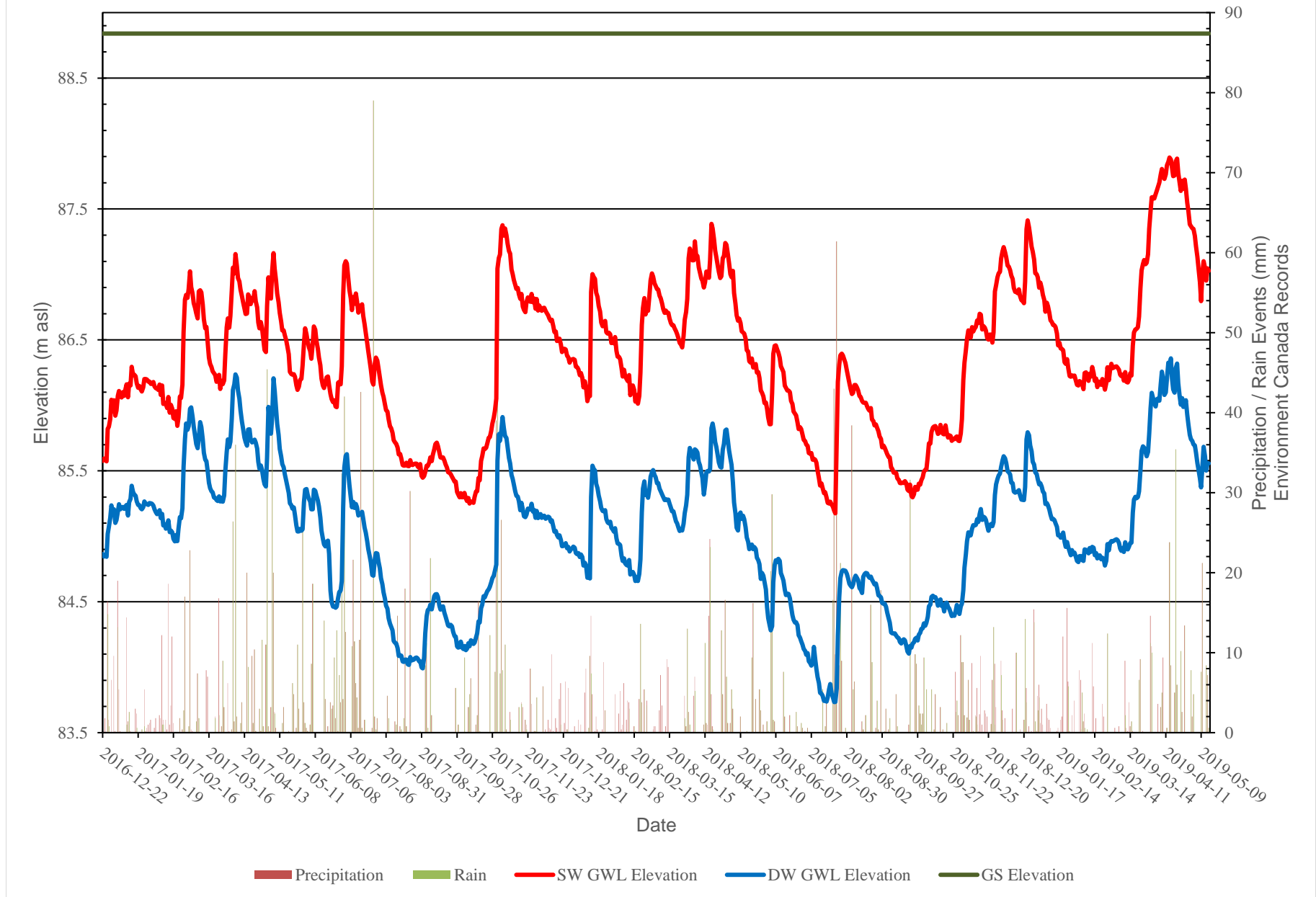


Figure 4: BH4 - Groundwater Monitoring Levels vs Precipitation Data

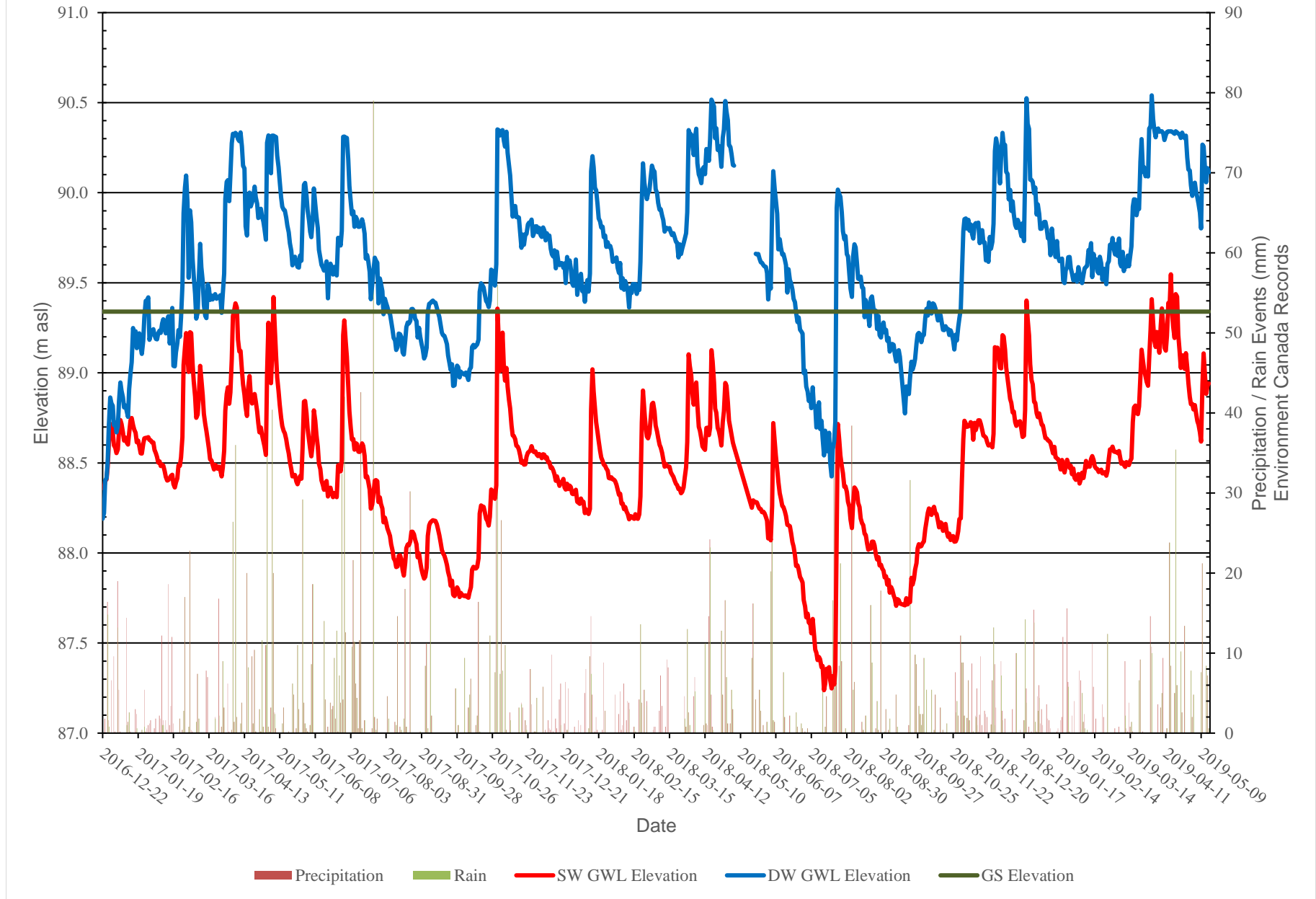
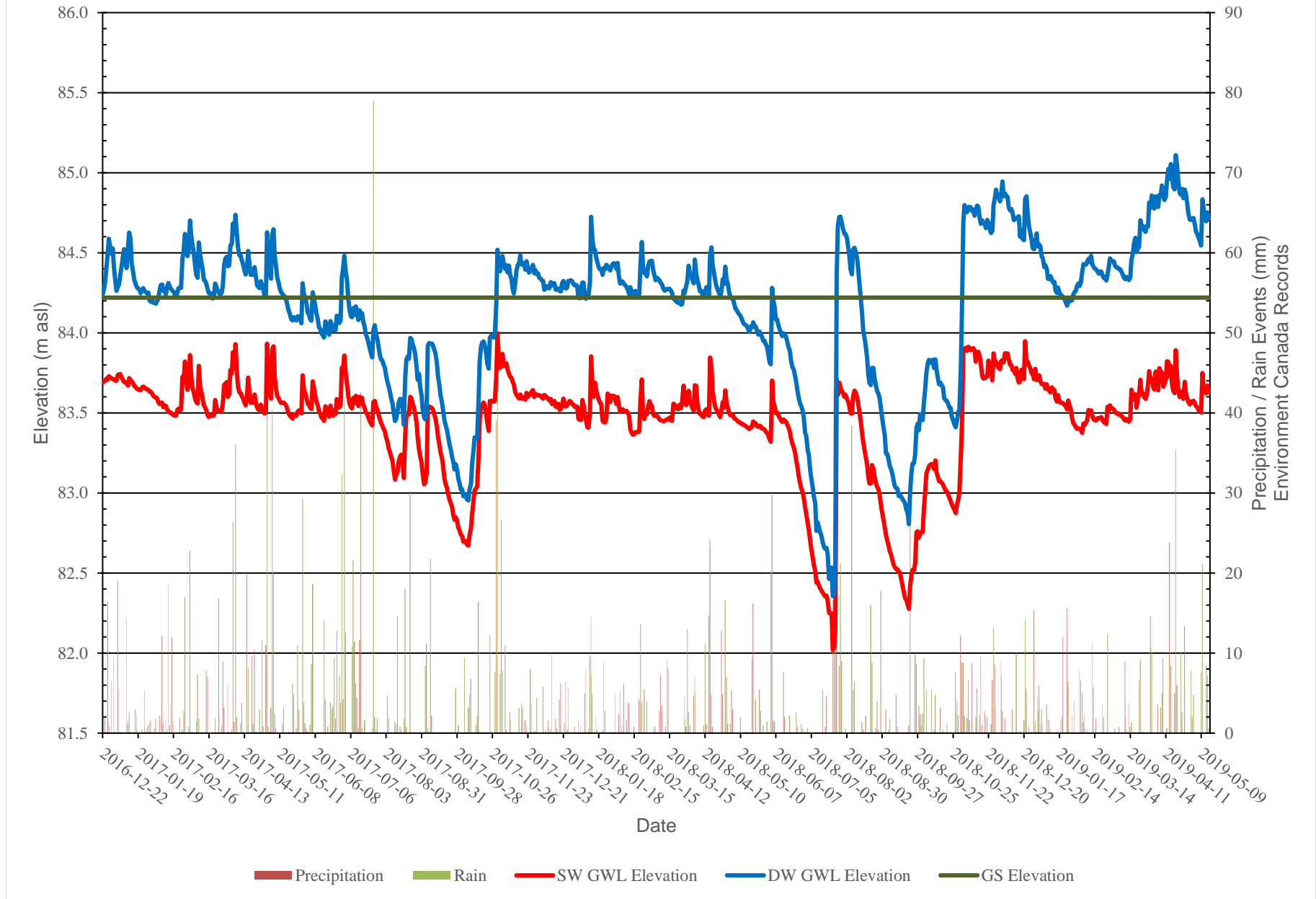


Figure 5: BH5 - Groundwater Monitoring Levels vs Precipitation Data



Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919640
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D.
 Sample Matrix
 Sample Type
 Sampling Date
 Sample I.D.

1462298
 GW
 2019-10-23
 BH1A

Group	Analyte	MRL	Units	Guideline	
Anions	Cl	1	mg/L		101
	F	0.10	mg/L		0.60
	N-NO2	0.10	mg/L		<0.10
	N-NO3	0.10	mg/L		<0.10
	SO4	1	mg/L		40
General Chemistry	Alkalinity as CaCO3	5	mg/L		278
	Colour	2	TCU		<2
	Conductivity	5	uS/cm		906
	pH	1.00			7.85
	S2-	0.05	mg/L		<0.05
	TDS	10	mg/L		540
	Turbidity	0.1	NTU		66.7
Hardness	Hardness as CaCO3	1	mg/L		376
Indices/Calc	Ion Balance	0.01			0.97
Metals	Ca	1	mg/L		83
	Fe	0.03	mg/L		1.71
	K	1	mg/L		8
	Mg	1	mg/L		41
	Mn	0.01	mg/L		0.12
	Na	2	mg/L		30
Microbiology	Escherichia Coli	0	ct/100mL		0
	Total Coliforms	0	ct/100mL		0
Others	DOC	0.5	mg/L		1.1
Subcontract-Inorg	N-NH3	0.01	mg/L		0.16
	Phenols	0.001	mg/L		<0.001

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
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 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D. 1462298
 Sample Matrix GW
 Sample Type
 Sampling Date 2019-10-23
 Sample I.D. BH1A

Group	Analyte	MRL	Units	Guideline
Subcontract-Inorg	Tannin & Lignin	0.1	mg/L	0.2
	Total Kjeldahl Nitrogen	0.1	mg/L	0.1

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

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Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919641
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D. 1462299
 Sample Matrix GW
 Sample Type
 Sampling Date 2019-10-23
 Sample I.D. BH1B

Group	Analyte	MRL	Units	Guideline	
Anions	Cl	1	mg/L		58
	F	0.10	mg/L		0.98
	N-NO2	0.10	mg/L		<0.10
	N-NO3	0.10	mg/L		<0.10
	SO4	1	mg/L		37
General Chemistry	Alkalinity as CaCO3	5	mg/L		289
	Colour	2	TCU		<2
	Conductivity	5	uS/cm		772
	pH	1.00			8.09
	S2-	0.01	mg/L		<0.01
	TDS	10	mg/L		420
	Turbidity	0.1	NTU		57.9
Hardness	Hardness as CaCO3	1	mg/L		287
Indices/Calc	Ion Balance	0.01			1.00
Metals	Ca	1	mg/L		67
	Fe	0.03	mg/L		0.78
	K	1	mg/L		6
	Mg	1	mg/L		29
	Mn	0.01	mg/L		0.14
	Na	2	mg/L		53
Microbiology	Escherichia Coli	0	ct/100mL		0
	Total Coliforms	0	ct/100mL		1
Others	DOC	0.5	mg/L		2.1
Subcontract-Inorg	N-NH3	0.01	mg/L		0.14
	Phenols	0.001	mg/L		<0.001

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
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 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919641
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D.	1462299
Sample Matrix	GW
Sample Type	
Sampling Date	2019-10-23
Sample I.D.	BH1B

Group	Analyte	MRL	Units	Guideline	
Subcontract-Inorg	Tannin & Lignin	0.1	mg/L		0.2
	Total Kjeldahl Nitrogen	0.1	mg/L		0.1

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919642
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D.
 Sample Matrix
 Sample Type
 Sampling Date
 Sample I.D.

1462300
 GW
 2019-10-23
 BH2A

Group	Analyte	MRL	Units	Guideline	
Anions	Cl	1	mg/L		16
	F	0.10	mg/L		0.74
	N-NO2	0.10	mg/L		<0.10
	N-NO3	0.10	mg/L		<0.10
	SO4	1	mg/L		48
General Chemistry	Alkalinity as CaCO3	5	mg/L		298
	Colour	2	TCU		<2
	Conductivity	5	uS/cm		656
	pH	1.00			7.82
	S2-	0.1	mg/L		<0.1
	TDS	10	mg/L		380
	Turbidity	0.1	NTU		>100
Hardness	Hardness as CaCO3	1	mg/L		340
Indices/Calc	Ion Balance	0.01			0.99
Metals	Ca	1	mg/L		85
	Fe	0.03	mg/L		2.49
	K	1	mg/L		4
	Mg	1	mg/L		31
	Mn	0.01	mg/L		0.25
	Na	2	mg/L		11
Microbiology	Escherichia Coli	0	ct/100mL		0
	Total Coliforms	0	ct/100mL		11
Others	DOC	0.5	mg/L		1.4
Subcontract-Inorg	N-NH3	0.01	mg/L		0.10
	Phenols	0.001	mg/L		<0.001

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919642
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D. 1462300
 Sample Matrix GW
 Sample Type
 Sampling Date 2019-10-23
 Sample I.D. BH2A

Group	Analyte	MRL	Units	Guideline
Subcontract-Inorg	Tannin & Lignin	0.1	mg/L	0.4
	Total Kjeldahl Nitrogen	0.1	mg/L	0.1

Guideline =

*** = Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919644
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Group	Analyte	MRL	Units	Guideline	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.
Anions	Cl	1	mg/L		1462301 GW
	F	0.10	mg/L		2019-10-23 BH2B
	N-NO2	0.10	mg/L		
	N-NO3	0.10	mg/L		
	SO4	1	mg/L		
General Chemistry	Alkalinity as CaCO3	5	mg/L		66
	Colour	2	TCU		0.66
	Conductivity	5	uS/cm		<0.10
	pH	1.00			<0.10
	S2-	0.01	mg/L		44
	TDS	10	mg/L		279
	Turbidity	0.1	NTU		<2
Hardness	Hardness as CaCO3	1	mg/L		794
Indices/Calc	Ion Balance	0.01			7.76
Metals	Ca	1	mg/L		<0.01
	Fe	0.03	mg/L		480
	K	1	mg/L		16.0
	Mg	1	mg/L		368
	Mn	0.01	mg/L		1.00
	Na	2	mg/L		98
Microbiology	Escherichia Coli	0	ct/100mL		0.57
	Total Coliforms	0	ct/100mL		4
Others	DOC	0.5	mg/L		30
Subcontract-Inorg	N-NH3	0.01	mg/L		0.05
	Phenols	0.001	mg/L		0.05

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919644
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D. 1462301
 Sample Matrix GW
 Sample Type
 Sampling Date 2019-10-23
 Sample I.D. BH2B

Group	Analyte	MRL	Units	Guideline
Subcontract-Inorg	Tannin & Lignin	0.1	mg/L	<0.1
	Total Kjeldahl Nitrogen	0.1	mg/L	<0.1

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919645
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Group	Analyte	MRL	Units	Guideline	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.
Anions	Cl	1	mg/L		1462302 GW
	F	0.10	mg/L		2019-10-23 BH3A
	N-NO2	0.10	mg/L		
	N-NO3	0.10	mg/L		
	SO4	1	mg/L		
General Chemistry	Alkalinity as CaCO3	5	mg/L		7
	Colour	2	TCU		0.22
	Conductivity	5	uS/cm		<0.10
	pH	1.00			0.19
	S2-	0.01	mg/L		67
	TDS	10	mg/L		319
	Turbidity	0.1	NTU		<2
Hardness	Hardness as CaCO3	1	mg/L		693
Indices/Calc	Ion Balance	0.01			7.80
Metals	Ca	1	mg/L		<0.01
	Fe	0.03	mg/L		400
	K	1	mg/L		24.7
	Mg	1	mg/L		
	Mn	0.01	mg/L		
	Na	2	mg/L		
Microbiology	Escherichia Coli	0	ct/100mL		383
	Total Coliforms	0	ct/100mL		1.00
Others	DOC	0.5	mg/L		
Subcontract-Inorg	N-NH3	0.01	mg/L		
	Phenols	0.001	mg/L		

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919645
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D. 1462302
 Sample Matrix GW
 Sample Type
 Sampling Date 2019-10-23
 Sample I.D. BH3A

Group	Analyte	MRL	Units	Guideline
Subcontract-Inorg	Tannin & Lignin	0.1	mg/L	<0.1
	Total Kjeldahl Nitrogen	0.1	mg/L	<0.1

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919646
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D.
 Sample Matrix
 Sample Type
 Sampling Date
 Sample I.D.

1462303
 GW
 2019-10-23
 BH3B

Group	Analyte	MRL	Units	Guideline	
Anions	Cl	1	mg/L		9
	F	0.10	mg/L		0.49
	N-NO2	0.10	mg/L		<0.10
	N-NO3	0.10	mg/L		2.21
	SO4	1	mg/L		28
General Chemistry	Alkalinity as CaCO3	5	mg/L		271
	Colour	2	TCU		<2
	Conductivity	5	uS/cm		562
	pH	1.00			7.88
	S2-	0.01	mg/L		<0.01
	TDS	10	mg/L		310
	Turbidity	0.1	NTU		22.1
Hardness	Hardness as CaCO3	1	mg/L		286
Indices/Calc	Ion Balance	0.01			0.97
Metals	Ca	1	mg/L		70
	Fe	0.03	mg/L		0.76
	K	1	mg/L		3
	Mg	1	mg/L		27
	Mn	0.01	mg/L		0.14
	Na	2	mg/L		10
Microbiology	Escherichia Coli	0	ct/100mL		0
	Total Coliforms	0	ct/100mL		2
Others	DOC	0.5	mg/L		1.2
Subcontract-Inorg	N-NH3	0.01	mg/L		0.07
	Phenols	0.001	mg/L		<0.001

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919646
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D. 1462303
 Sample Matrix GW
 Sample Type
 Sampling Date 2019-10-23
 Sample I.D. BH3B

Group	Analyte	MRL	Units	Guideline
Subcontract-Inorg	Tannin & Lignin	0.1	mg/L	<0.1
	Total Kjeldahl Nitrogen	0.1	mg/L	<0.1

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919647
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D.
 Sample Matrix
 Sample Type
 Sampling Date
 Sample I.D.

1462304
 GW
 2019-10-23
 BH4A

Group	Analyte	MRL	Units	Guideline	
Anions	Cl	1	mg/L		149
	F	0.10	mg/L		0.52
	N-NO2	0.10	mg/L		<0.10
	N-NO3	0.10	mg/L		<0.10
	SO4	1	mg/L		45
General Chemistry	Alkalinity as CaCO3	5	mg/L		271
	Colour	2	TCU		2
	Conductivity	5	uS/cm		1070
	pH	1.00			7.81
	S2-	0.05	mg/L		<0.05
	TDS	10	mg/L		610
	Turbidity	0.1	NTU		54.0
Hardness	Hardness as CaCO3	1	mg/L		383
Indices/Calc	Ion Balance	0.01			1.01
Metals	Ca	1	mg/L		112
	Fe	0.03	mg/L		1.04
	K	1	mg/L		4
	Mg	1	mg/L		25
	Mn	0.01	mg/L		0.12
	Na	2	mg/L		68
Microbiology	Escherichia Coli	0	ct/100mL		0
	Total Coliforms	0	ct/100mL		10
Others	DOC	0.5	mg/L		1.8
Subcontract-Inorg	N-NH3	0.01	mg/L		0.12
	Phenols	0.001	mg/L		<0.001

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919647
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D. 1462304
 Sample Matrix GW
 Sample Type
 Sampling Date 2019-10-23
 Sample I.D. BH4A

Group	Analyte	MRL	Units	Guideline
Subcontract-Inorg	Tannin & Lignin	0.1	mg/L	0.1
	Total Kjeldahl Nitrogen	0.1	mg/L	0.1

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919648
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D.
 Sample Matrix
 Sample Type
 Sampling Date
 Sample I.D.

1462305
 GW
 2019-10-23
 BH4B

Group	Analyte	MRL	Units	Guideline	
Anions	Cl	1	mg/L		135
	F	0.10	mg/L		0.52
	N-NO2	0.10	mg/L		<0.10
	N-NO3	0.10	mg/L		<0.10
	SO4	1	mg/L		46
General Chemistry	Alkalinity as CaCO3	5	mg/L		271
	Colour	2	TCU		2
	Conductivity	5	uS/cm		1030
	pH	1.00			7.79
	S2-	0.01	mg/L		<0.01
	TDS	10	mg/L		580
	Turbidity	0.1	NTU		16.9
Hardness	Hardness as CaCO3	1	mg/L		364
Indices/Calc	Ion Balance	0.01			1.02
Metals	Ca	1	mg/L		106
	Fe	0.03	mg/L		1.92
	K	1	mg/L		4
	Mg	1	mg/L		24
	Mn	0.01	mg/L		0.08
	Na	2	mg/L		70
Microbiology	Escherichia Coli	0	ct/100mL		0
	Total Coliforms	0	ct/100mL		1
Others	DOC	0.5	mg/L		1.9
Subcontract-Inorg	N-NH3	0.01	mg/L		0.10
	Phenols	0.001	mg/L		<0.001

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919648
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D. 1462305
 Sample Matrix GW
 Sample Type
 Sampling Date 2019-10-23
 Sample I.D. BH4B

Group	Analyte	MRL	Units	Guideline
Subcontract-Inorg	Tannin & Lignin	0.1	mg/L	<0.1
	Total Kjeldahl Nitrogen	0.1	mg/L	<0.1

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919649
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D.
 Sample Matrix
 Sample Type
 Sampling Date
 Sample I.D.

1462306
 GW
 2019-10-23
 BH5A

Group	Analyte	MRL	Units	Guideline	
Anions	Cl	1	mg/L		59
	F	0.10	mg/L		0.23
	N-NO2	0.10	mg/L		<0.10
	N-NO3	0.10	mg/L		1.08
	SO4	1	mg/L		47
General Chemistry	Alkalinity as CaCO3	5	mg/L		293
	Colour	2	TCU		2
	Conductivity	5	uS/cm		787
	pH	1.00			7.80
	S2-	0.05	mg/L		<0.05
	TDS	10	mg/L		390
	Turbidity	0.1	NTU		50.5
Hardness	Hardness as CaCO3	1	mg/L		350
Indices/Calc	Ion Balance	0.01			1.00
Metals	Ca	1	mg/L		94
	Fe	0.03	mg/L		1.09
	K	1	mg/L		3
	Mg	1	mg/L		28
	Mn	0.01	mg/L		0.16
	Na	2	mg/L		34
Microbiology	Escherichia Coli	0	ct/100mL		0
	Total Coliforms	0	ct/100mL		7
Others	DOC	0.5	mg/L		1.8
Subcontract-Inorg	N-NH3	0.01	mg/L		0.15
	Phenols	0.001	mg/L		<0.001

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919649
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D. 1462306
 Sample Matrix GW
 Sample Type
 Sampling Date 2019-10-23
 Sample I.D. BH5A

Group	Analyte	MRL	Units	Guideline
Subcontract-Inorg	Tannin & Lignin	0.1	mg/L	0.2
	Total Kjeldahl Nitrogen	0.1	mg/L	0.2

Guideline =

*** = Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919650
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

Lab I.D. 1462307
 Sample Matrix GW
 Sample Type
 Sampling Date 2019-10-23
 Sample I.D. BH5B

Group	Analyte	MRL	Units	Guideline	
Anions	Cl	1	mg/L		28
	F	0.10	mg/L		0.31
	N-NO2	0.10	mg/L		<0.10
	N-NO3	0.10	mg/L		<0.10
	SO4	1	mg/L		24
General Chemistry	Alkalinity as CaCO3	5	mg/L		247
	Colour	2	TCU		<2
	Conductivity	5	uS/cm		579
	pH	1.00			7.93
	S2-	0.01	mg/L		<0.01
	TDS	10	mg/L		340
	Turbidity	0.1	NTU		16.3
Hardness	Hardness as CaCO3	1	mg/L		294
Indices/Calc	Ion Balance	0.01			1.03
Metals	Ca	1	mg/L		75
	Fe	0.03	mg/L		0.67
	K	1	mg/L		2
	Mg	1	mg/L		26
	Mn	0.01	mg/L		0.04
	Na	2	mg/L		11
Microbiology	Escherichia Coli	0	ct/100mL		0
	Total Coliforms	0	ct/100mL		0
Others	DOC	0.5	mg/L		1.6
Subcontract-Inorg	N-NH3	0.01	mg/L		0.07
	Phenols	0.001	mg/L		<0.001

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Certificate of Analysis

Client: Paterson Group
 154 Colonnade Rd. South
 Nepean, ON
 K2E 7T7
 Attention: Mr. Nick Zulinski
 PO#: 27240
 Invoice to: Paterson Group

Report Number: 1919650
 Date Submitted: 2019-10-24
 Date Reported: 2019-10-30
 Project: PG3975
 COC #: 850697

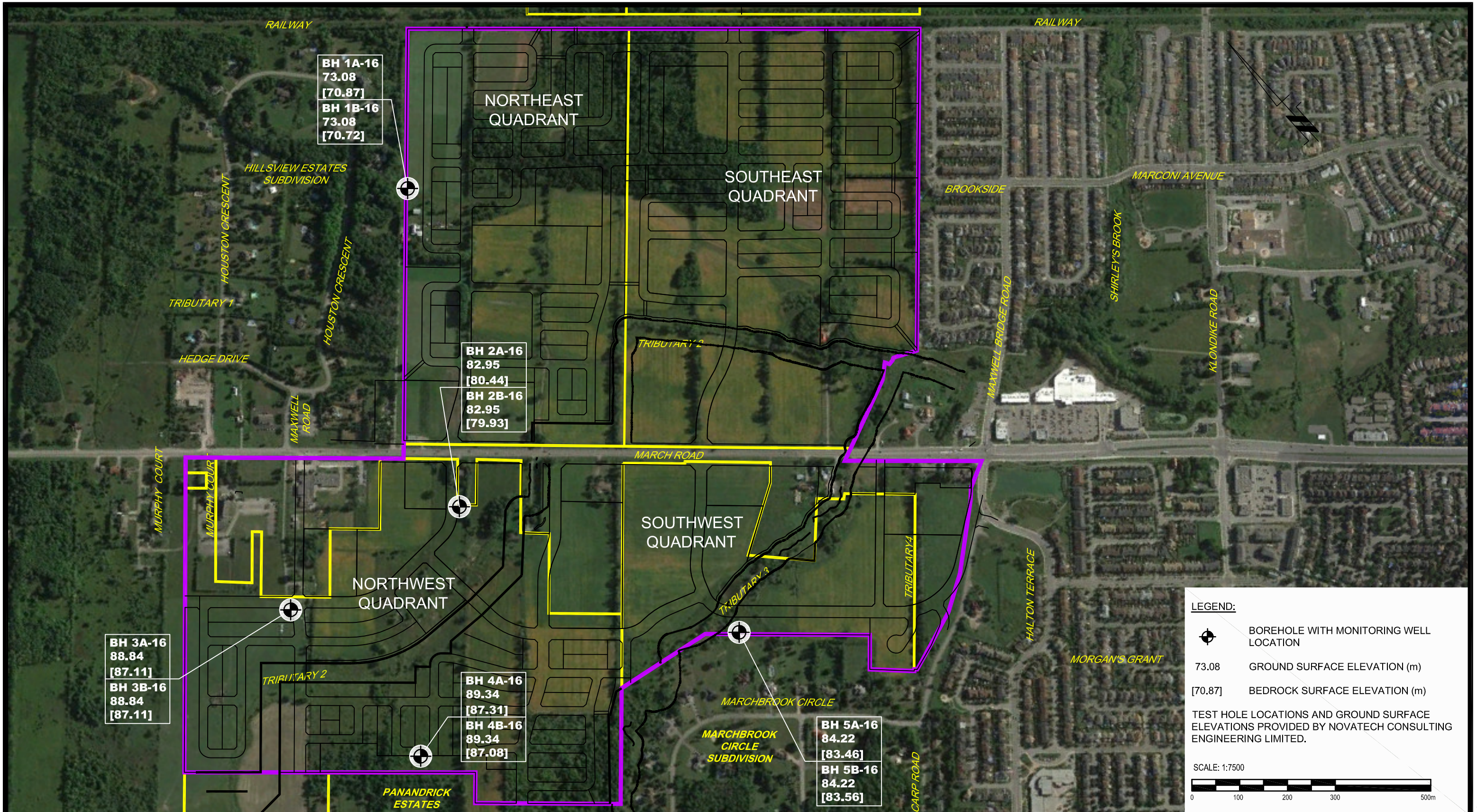
Lab I.D. 1462307
 Sample Matrix GW
 Sample Type
 Sampling Date 2019-10-23
 Sample I.D. BH5B

Group	Analyte	MRL	Units	Guideline
Subcontract-Inorg	Tannin & Lignin	0.1	mg/L	0.1
	Total Kjeldahl Nitrogen	0.1	mg/L	<0.1

Guideline = * = **Guideline Exceedence**

Results relate only to the parameters tested on the samples submitted.
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range



patersongroup
consulting engineers

154 Colonnade Road South
Ottawa, Ontario K2E 7J5
Tel: (613) 226-7381 Fax: (613) 226-6344

NO.	REVISIONS	DATE	INITIAL
0			

OTTAWA,
Title:

NOVATECH CONSULTING ENGINEERING LIMITED
SENTINEL MONITORING WELLS
KANATA NORTH COMMUNITY DESIGN PLAN

TEST HOLE LOCATION PLAN

ONTARIO

Scale: 1:7500

Drawn by: MPG

Checked by: MK

Approved by: MK

Date: 01/2017

Report No.: PG3975-1

Dwg. No.: **PG3975-1**

Revision No.: 0