NAPT Program
North American Proficiency Testing

Soil Science Society of America

2025 North American Proficiency Testing Program
Quarter 1 Report - 4/24/2025

Laboratory ID

PAP certification requirments: All 20 soil and/or 12 plant samples have to have data submitted with an average score >60% for each method to be certified, as well as an overall of all methods >80%.

Overall PAP Score for this Year

#DIV/0!

Soil			Soil 2025-101			Soil 2025-102			Soil 2025-103			Soil 2025-104			Soil 2025-105			Current
Analysis - Modus Code	**Units**	***n***	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**PAP Score**
Saturated Paste																		
Moisture - sp	%	13	**51.2**	3.70		**49.7**	5.70		**49.5**	2.00		**45.8**	6.10		**51.3**	2.61		
pH - sp	Unit	21	**7.76**	0.16		**7.38**	0.15		**7.10**	0.14		**6.84**	0.14		**5.90**	0.12		
ECe - sp	dS/m	18	**0.92**	0.057		**1.56**	0.17		**1.08**	0.059		**0.83**	0.072		**0.42**	0.039		
HCO3 - sp	mmolc/L	13	**6.00**	0.58		**4.50**	1.15		**3.52**	0.62		**4.11**	1.25		**2.00**	0.69		
Ca - sp	mmolc/L	19	**5.82**	0.50		**8.90**	1.12		**7.94**	0.78		**5.22**	0.59		**3.24**	0.31		
Mg - sp	mmolc/L	19	**2.55**	0.19		**6.30**	0.84		**1.97**	0.25		**1.62**	0.24		**0.80**	0.080		
Na - sp	mmolc/L	17	**1.21**	0.098		**1.93**	0.23		**0.25**	0.020		**0.43**	0.050		**0.42**	0.056		
SAR - sp	value	14	**0.60**	0.025		**0.70**	0.050		**0.12**	0.020		**0.26**	0.035		**0.30**	0.020		
Cl - sp	mmolc/L	12	**0.62**	0.11		**0.82**	0.18		**0.40**	0.029		**0.30**	0.047		**0.39**	0.084		
SO4 - sp	mmolc/L	15	**1.66**	0.17		**1.83**	0.50		**1.04**	0.23		**0.86**	0.20		**0.91**	0.17		
NO3 - sp	mmolc/L	9	**1.51**	1.28		**5.34**	2.27		**4.63**	1.17		**1.50**	0.86		**0.078**	0.12		
B - sp	mg/L	10	**0.32**	0.055		**0.20**	0.050		**0.060**	0.037		**0.15**	0.030		**0.075**	0.030		
pH & EC (1:1 or 1:2)																		
EC (1:1)	(dS/m)	28	**0.59**	0.060		**0.73**	0.044		**0.57**	0.045		**0.43**	0.039		**0.20**	0.027		
EC (1:2)	(dS/m)	35	**0.34**	0.043		**0.49**	0.040		**0.35**	0.029		**0.26**	0.033		**0.14**	0.020		
pH (1:1) Water	Unit	75	**8.00**	0.16		**7.48**	0.15		**7.24**	0.15		**7.01**	0.14		**5.90**	0.12		
pH (1:2) Water	Unit	19	**8.10**	0.16		**7.61**	0.15		**7.36**	0.15		**7.12**	0.14		**5.96**	0.12		
pH (1:1) 0.01M CaCl2	Unit	20	**7.62**	0.15		**7.20**	0.14		**6.90**	0.14		**6.62**	0.13		**5.42**	0.11		
pH (1:2) 0.01M CaCl2	Unit	10	**7.52**	0.15		**7.16**	0.14		**6.95**	0.14		**6.63**	0.13		**5.37**	0.11		
Lime Req.																		
SMP Buffer pH	Unit	17	**7.51**	0.15		**7.34**	0.15		**7.28**	0.15		**7.21**	0.14		**6.28**	0.13		
Adams-Evans Buf pH	Unit	5	**7.70**	N/A		**7.64**	N/A		**7.75**	N/A		**7.67**	N/A		**7.19**	N/A		
Woodruff Buf. pH	Unit	19	**7.13**	0.14		**7.07**	0.14		**7.00**	0.14		**6.95**	0.14		**6.30**	0.13		
Mehlich Buffer pH	Unit	7	**6.90**	N/A		**6.72**	0.13		**6.60**	0.13		**6.49**	0.13		**5.77**	0.12		
Sikora Buffer pH	Unit	37	**7.54**	0.15		**7.33**	0.15		**7.30**	0.15		**7.25**	0.15		**6.30**	0.13		
Titratable Acidity	cmol/kg																	
Inorganic Nitrogen (NO3-N & NH4-N)																		
NO3-N Cd. Rd.	mg/kg	63	**31.5**	1.41		**54.9**	2.30		**43.0**	2.05		**24.2**	1.00		**5.60**	0.56		
NO3-N ISE	mg/kg	4	**46.2**	N/A		**67.6**	N/A		**52.3**	N/A		**29.8**	N/A		**7.49**	N/A		
NO3-N CTA	mg/kg	2	**31.5**	N/A		**56.8**	N/A		**44.4**	N/A		**22.5**	N/A		**6.96**	N/A		
NO3-N Ion Chr.	mg/kg																	
NO3-N Other	mg/kg	10	**31.7**	0.63		**55.9**	2.30		**46.1**	3.10		**24.6**	1.20		**5.50**	1.02		
NH4 - N (KCl Extr.)	mg/kg	39	**10.8**	0.51		**77.8**	3.29		**91.8**	4.59		**28.2**	1.20		**21.5**	2.15		
Phosphorus and Sulfur																		
PO4-P Bray P (1:10)	mg/kg	38	**28.0**	13.1		**74.2**	3.47		**37.6**	3.32		**71.8**	3.18		**125.0**	10.5		
PO4-P Bray P1 (1:7)	mg/kg	6	**31.9**	2.60		**58.9**	N/A		**27.0**	2.06		**65.4**	3.85		**89.5**	19.1		
PO4-P Olsen/Bicarb	mg/kg	46	**32.0**	1.81		**65.0**	4.00		**30.5**	2.60		**39.0**	2.20		**61.9**	4.53		
PO4-P AB-DTPA	mg/kg	2	**18.7**	N/A		**34.7**	N/A		**21.5**	N/A		**22.0**	N/A		**28.8**	N/A		
PO4-P Modified Morgan	mg/kg	5	**74.6**	N/A		**23.1**	N/A		**8.98**	N/A		**21.9**	N/A		**5.24**	N/A		
PO4-P True Morgan	mg/kg	6	**75.8**	7.50		**25.5**	2.80		**10.7**	1.80		**27.0**	2.70		**6.80**	N/A		
PO4-P Mod. Kelowna	mg/kg	1	**70.0**	N/A		**70.0**	N/A		**28.0**	N/A		**59.0**	N/A		**67.0**	N/A		
PO4-P Stong Bray (1:10)	mg/kg	12	**272.0**	18.3		**304.0**	15.8		**123.0**	2.93		**332.0**	19.0		**244.0**	13.5		
PO4-P Water Soluble	mg/kg																	
SO4 - S (PO4 Extr.)	mg/kg	28	**14.9**	2.19		**17.8**	1.99		**8.94**	1.22		**7.59**	1.09		**11.7**	2.51		
Bases																		

K NH4OAc	mg/kg	62	**681.0**	33.9	**476.0**	22.8	**130.0**	5.65	**701.0**	38.4	**281.0**	18.6
Ca NH4OAc	mg/kg	60	**5080.0**	553.0	**3060.0**	150.0	**3280.0**	168.0	**2510.0**	113.0	**2310.0**	185.0
Mg NH4OAc	mg/kg	58	**668.0**	28.4	**901.0**	36.3	**342.0**	13.0	**346.0**	12.1	**210.0**	13.3
Na NH4OAc	mg/kg	53	**47.1**	2.73	**64.0**	3.83	**12.4**	2.53	**18.4**	2.46	**23.4**	2.57
Bray Extractable K	mg/kg	5	**446.0**	N/A	**315.0**	N/A	**88.7**	N/A	**496.0**	N/A	**172.0**	N/A
K- Bicarb.	mg/kg	3	**518.0**	N/A	**339.0**	N/A	**124.0**	N/A	**498.0**	N/A	**248.0**	N/A
K - Modified Morgan	mg/kg	4	**626.0**	N/A	**442.0**	N/A	**126.0**	N/A	**658.0**	N/A	**293.0**	N/A
K - True Morgan	mg/kg	4	**358.0**	N/A	**238.0**	N/A	**82.3**	N/A	**398.0**	N/A	**208.0**	N/A
Ca Modified Morgan	mg/kg	3	**13800.0**	N/A	**3000.0**	N/A	**3610.0**	N/A	**2500.0**	N/A	**2590.0**	N/A
Aluminum KCL Extr.	mg/kg	3	**0.50**	N/A	**0.60**	N/A	**0.40**	N/A	**0.30**	N/A	**1.60**	N/A
Mehlich-1 Multi Element												
Scoop Soil Mass	g											
P	mg/kg	7	**47.5**	7.35	**132.0**	14.5	**34.0**	2.00	**259.0**	16.6	**48.7**	9.92
K	mg/kg	9	**243.0**	35.5	**263.0**	15.4	**73.5**	4.14	**407.0**	26.3	**172.0**	9.66
Ca	mg/kg	9	**6110.0**	976.0	**2540.0**	254.0	**2640.0**	253.0	**2350.0**	260.0	**2230.0**	186.0
Mg	mg/kg	9	**475.0**	36.3	**698.0**	55.0	**269.0**	24.6	**294.0**	24.3	**185.0**	15.2
Mn	mg/kg	6	**5.00**	N/A	**257.0**	10.5	**37.0**	0.74	**107.0**	2.14	**57.6**	N/A
Zn	mg/kg	6	**0.075**	0.041	**7.72**	0.58	**1.14**	0.11	**2.30**	0.12	**4.03**	0.25
Mehlich-3 Multi-Element												
Scoop Soil Mass	g											
Assumed Density	g/cm3											
Volume of Scoop	cm3											
Extractrant Volume mL	mL											
P Colorimetric	mg/kg	12	**101.0**	2.40	**92.7**	2.25	**50.2**	2.41	**89.6**	5.50	**112.0**	3.75
P ICP-AES	mg/kg	50	**115.0**	4.74	**103.0**	3.79	**58.0**	3.60	**100.0**	4.56	**120.0**	8.07
K	mg/kg	51	**706.0**	28.2	**488.0**	18.3	**128.0**	4.75	**719.0**	29.7	**269.0**	13.9
Ca	mg/kg	51	**6690.0**	348.0	**3190.0**	87.0	**3640.0**	148.0	**2710.0**	104.0	**2470.0**	132.0
Mg	mg/kg	50	**818.0**	46.7	**970.0**	49.6	**371.0**	14.3	**385.0**	15.5	**220.0**	10.7
Na	mg/kg	42	**51.5**	2.81	**68.3**	2.75	**14.6**	1.33	**20.3**	0.98	**25.3**	2.25
S	mg/kg	42	**37.4**	2.17	**24.6**	0.82	**14.0**	0.61	**13.2**	1.12	**19.4**	0.67
Al	mg/kg	35	**254.0**	17.6	**532.0**	22.3	**383.0**	23.3	**628.0**	24.2	**1390.0**	96.5
Zn	mg/kg	46	**5.10**	0.16	**10.9**	0.74	**1.11**	0.090	**3.52**	0.18	**4.40**	0.25
Mn	mg/kg	42	**122.0**	8.55	**321.0**	13.3	**42.9**	2.02	**234.0**	12.2	**60.7**	3.28
Fe	mg/kg	47	**46.8**	3.58	**362.0**	24.2	**490.0**	45.9	**145.0**	6.46	**194.0**	11.1
Cu	mg/kg	47	**3.11**	0.19	**5.37**	0.26	**2.22**	0.57	**3.16**	0.15	**1.76**	0.11
B	mg/kg	37	**3.55**	0.40	**1.51**	0.055	**0.70**	0.14	**1.19**	0.074	**0.50**	0.050
Micronutrients												
Zn - DTPA	mg/kg	56	**1.92**	0.13	**5.68**	0.31	**0.67**	0.067	**1.63**	0.070	**3.10**	0.29
Mn - DTPA	mg/kg	48	**21.6**	1.14	**198.0**	13.2	**30.1**	1.95	**85.4**	3.84	**43.3**	2.60
Fe - DTPA	mg/kg	50	**5.00**	0.58	**71.2**	8.16	**111.0**	14.5	**30.3**	3.00	**78.2**	6.78
Cu - DTPA	mg/kg	51	**1.35**	0.050	**4.75**	0.26	**3.21**	0.21	**1.90**	0.11	**1.40**	0.100
Zn - HCl	mg/kg	1	**1.20**	N/A	**14.1**	N/A	**1.80**	N/A	**3.90**	N/A	**5.80**	N/A
Mn-H3PO4	mg/kg	9	**10.2**	1.30	**212.0**	11.0	**30.5**	2.30	**83.8**	4.24	**50.8**	4.29
Cl - Ca(NO3)2 Extr.	mg/kg	12	**10.4**	1.60	**14.5**	2.00	**7.07**	1.38	**5.45**	0.55	**6.03**	1.72
B - Hot Wat.	mg/kg	13	**1.76**	0.44	**1.06**	0.13	**0.33**	0.020	**0.90**	0.095	**0.47**	0.14
B - DTPA/Sorbitol	mg/kg	16	**2.22**	0.22	**0.91**	0.079	**0.30**	0.040	**0.64**	0.051	**0.27**	0.070
N & C												
Total N - Kjeldahl	%	7	**0.18**	0.020	**0.13**	0.020	**0.17**	0.025	**0.14**	N/A	**0.23**	0.021
Total N - combustion	%	39	**0.18**	0.020	**0.14**	0.020	**0.16**	0.020	**0.15**	0.020	**0.24**	0.020
TOC - combustion	%	23	**1.52**	0.054	**1.43**	0.060	**1.62**	0.035	**1.36**	0.035	**2.95**	0.10
Total C - combustion	%	39	**2.17**	0.050	**1.51**	0.072	**1.66**	0.060	**1.36**	0.053	**2.96**	0.061
OM - Walkley-Black	%	24	**2.70**	0.13	**2.71**	0.20	**2.76**	0.12	**2.50**	0.11	**4.90**	0.28
OM - LOI (% Wt loss)	%	61	**3.06**	0.16	**3.42**	0.22	**3.20**	0.100	**2.70**	0.070	**6.46**	0.26
Miscellaneous												

CaCO3 Content	%	12	**5.92**	0.32	**0.45**	0.22	**0.35**	0.20	**0.29**	0.21	**0.34**	0.23
CEC - Cation Displacement	cmol/kg	7	**24.7**	2.82	**26.8**	1.23	**22.4**	1.60	**20.0**	1.00	**26.4**	4.85
CEC - Estimation	cmol/kg	10	**34.1**	5.30	**23.7**	1.25	**20.0**	1.67	**17.3**	0.75	**21.4**	0.95
Soil Density (Scoop)	g/cc											
Particle Size Analysis - Hydrometer												
Sand 2000 - 50 um	%	32	**34.3**	2.75	**44.0**	2.61	**15.5**	3.15	**25.0**	5.22	**29.5**	3.48
Silt 50 - 2 um	%	31	**30.9**	2.10	**35.2**	2.50	**58.5**	3.03	**56.7**	4.52	**43.2**	3.25
Clay 2 - 0 um	%	33	**33.7**	3.00	**20.2**	1.80	**26.2**	2.25	**19.5**	1.60	**26.5**	2.20
Particle Size Analysis - Pipette												
Sand 2000 - 50 um	%	4	**36.8**	N/A	**46.8**	N/A	**12.8**	N/A	**24.8**	N/A	**28.0**	N/A
Silt 50 - 2 um	%	4	**28.8**	N/A	**31.8**	N/A	**61.2**	N/A	**55.9**	N/A	**44.6**	N/A
Clay 2 - 0 um	%	4	**35.0**	N/A	**21.8**	N/A	**25.7**	N/A	**20.0**	N/A	**27.0**	N/A
Soil Health												
Autoclave-Citrate Extractable (ACE) protein	mg/g	3	**2.30**	N/A	**4.34**	N/A	**2.98**	N/A	**2.38**	N/A	**5.83**	N/A
Microbial CO2 respiration (1 day incubation-ST	mg/g	6	**0.068**	0.040	**0.075**	0.036	**0.099**	0.036	**0.11**	0.042	**0.14**	0.050
Microbial CO2 respiration (4 day incubation-ST	mg/g	1	**68.9**	N/A	**87.3**	N/A	**49.4**	N/A	**61.6**	N/A	**101.0**	N/A
Microbial enzyme activity - As	mg PNP/kg soil h											
Microbial enzyme activity - Beta Glucosidase (E	mg PNP/kg soil h											
Microbial enzyme activity - NAG	mg PNP/kg soil h											
Microbial enzyme activity - Pase	mg PNP/kg soil h											
PMN 7 day anaerobic	mg/kg	1	**72.0**	N/A	**18.0**	N/A	**20.0**	N/A	**41.0**	N/A	**77.0**	N/A
Reactive carbon - permanganate oxidizable (PC	mg/kg	6	**422.0**	73.9	**543.0**	115.0	**504.0**	84.6	**436.0**	64.6	**640.0**	168.0

Plant			Plant 2025-201			Plant 2025-202			Plant 2025-203			PAP Score
Analysis - Modus Code	**Units**	**n**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	#DIV/0!
Dry Matter & Non-Digest Nutrients												
Dry Matter	%	18	**92.0**	1.84		**94.9**	1.90		**94.2**	1.88		
NO3 - N Cd Rd.	mg/kg	25	**2530.0**	146.0		**26.2**	14.3		**319.0**	29.3		
NO3 - N ISE	mg/kg	3	**2760.0**	N/A		**121.0**	N/A		**460.0**	N/A		
NO3 - N Other	mg/kg	4	**2520.0**	N/A		**15.0**	N/A		**286.0**	N/A		
NH4 - N	mg/kg	2	**255.0**	N/A		**77.8**	N/A		**207.0**	N/A		
PO4 - P	mg/kg	10	**2060.0**	135.0		**953.0**	90.0		**968.0**	52.0		
SO4 - S	mg/kg	4	**7050.0**	N/A		**542.0**	N/A		**5870.0**	N/A		
Cl	%	18	**1.41**	0.11		**0.20**	0.055		**1.60**	0.11		
Total N-Kjeldahl	%	10	**3.76**	0.24		**1.64**	0.090		**3.16**	0.14		
Total N-combustion	%	61	**3.98**	0.19		**1.70**	0.045		**3.28**	0.084		
Total S-combustion	%	6	**0.81**	N/A		**0.16**	0.020		**0.75**	0.066		
Total C-combustion	%	16	**37.3**	1.34		**44.9**	0.90		**41.7**	0.83		
Nitric / Perchloric Digest												
P	%	59	**0.35**	0.022		**0.21**	0.020		**0.22**	0.020		
K	%	60	**2.48**	0.16		**1.30**	0.040		**2.61**	0.13		
Ca	%	61	**2.98**	0.11		**0.54**	0.027		**1.02**	0.080		
Mg	%	60	**1.42**	0.070		**0.24**	0.020		**0.56**	0.020		
S	%	59	**0.90**	0.062		**0.15**	0.020		**0.76**	0.074		
Na	%	50	**0.18**	0.020		**0.008**	0.020		**0.23**	0.020		
B	mg/kg	58	**89.0**	5.49		**6.19**	0.59		**250.0**	21.6		
Cu	mg/kg	59	**15.6**	1.26		**4.61**	0.49		**9.90**	0.75		
Fe	mg/kg	59	**367.0**	52.4		**57.5**	4.58		**77.0**	8.00		
Mn	mg/kg	59	**97.1**	4.64		**42.9**	1.35		**33.1**	1.85		
Mo	mg/kg	23	**0.89**	0.079		**3.00**	0.16		**2.75**	0.22		
Zn	mg/kg	58	**40.9**	4.13		**17.0**	0.96		**39.1**	2.05		
Al	mg/kg	33	**219.0**	49.4		**26.1**	3.67		**29.9**	12.9		
Ba	mg/kg	5	**64.8**	N/A		**17.6**	N/A		**10.0**	N/A		
Cd	mg/kg	3	**0.76**	N/A		**0.056**	N/A		**0.018**	N/A		
Co	mg/kg	5	**0.32**	N/A		**0.036**	N/A		**0.037**	N/A		
Cr	mg/kg	5	**1.05**	0.19		**0.63**	N/A		**0.26**	N/A		
Ni	mg/kg	5	**6.26**	0.18		**0.56**	N/A		**0.59**	N/A		
Pb	mg/kg	2	**0.29**	N/A		**0.24**	N/A		**0.14**	N/A		
Se	mg/kg	5	**1.16**	N/A		**0.042**	N/A		**0.80**	N/A		
Sr	mg/kg	5	**199.0**	N/A		**14.0**	N/A		**36.5**	N/A		
V	mg/kg	3	**0.88**	N/A		**0.055**	N/A		**0.16**	N/A		
Dry Ash												
P	%	9	**0.32**	0.025		**0.20**	0.020		**0.22**	0.020		
K	%	10	**2.13**	0.11		**1.25**	0.080		**2.40**	0.18		
Ca	%	10	**2.76**	0.060		**0.51**	0.030		**0.92**	0.075		
Mg	%	9	**1.44**	0.11		**0.24**	0.020		**0.53**	0.025		
Na	%	8	**0.20**	0.020		**0.010**	N/A		**0.19**	0.047		
B	mg/kg	9	**81.1**	4.14		**6.16**	0.25		**254.0**	7.71		
Cu	mg/kg	8	**13.1**	0.83		**4.32**	0.32		**5.12**	1.05		
Fe	mg/kg	10	**256.0**	57.7		**53.3**	7.63		**69.4**	9.07		
Mn	mg/kg	9	**90.3**	3.97		**41.7**	3.21		**30.4**	3.48		
Mo	mg/kg	3	**1.09**	N/A		**2.71**	N/A		**2.65**	N/A		
Zn	mg/kg	10	**47.2**	4.75		**16.9**	1.67		**32.6**	4.07		
Al	mg/kg	2	**250.0**	N/A		**28.1**	N/A		**42.4**	N/A		
Ba	mg/kg											
Cd	mg/kg											
Co	mg/kg											
Cr	mg/kg											
Ni	mg/kg											
Pb	mg/kg											
Se	mg/kg											
Sr	mg/kg											
V	mg/kg											

Water			Water 2025-301			Water 2025-302			Water 2025-303		
Analysis - Modus Code	**Units**	***n***	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**
pH & EC											
pH		26	**8.00**	0.16		**6.91**	0.14		**6.83**	0.18	
EC	dS/m	23	**0.40**	0.020		**0.081**	0.020		**0.020**	0.020	
Cations											
Ca	mmolc/L	19	**2.54**	0.090		**0.24**	0.020		**0.082**	0.020	
Mg	mmolc/L	18	**1.40**	0.080		**0.082**	0.020		**0.010**	0.020	
Na	mmolc/L	22	**0.35**	0.020		**0.35**	0.020		**0.033**	0.020	
K	mmolc/L	23	**0.030**	0.020		**0.090**	0.020		**0.010**	0.020	
NH4-N	mmolc/L	5	**0.009**	N/A		**0.005**	N/A		**0.009**	N/A	
Sum Cations	mmolc/L	13	**4.37**	0.20		**0.79**	0.046		**0.19**	0.067	
SAR	---	13	**0.24**	0.020		**0.81**	0.030		**0.13**	0.020	
Adj-SAR	---	1	**0.48**	N/A		**0.17**	N/A		**0.040**	N/A	
Anions											
HCO3	mmolc/L	18	**3.40**	0.19		**0.30**	0.020		**0.14**	0.040	
CO3	mmolc/L	4	**0.18**	0.028		**0.00**	N/A		**0.00**	N/A	
Cl	mmolc/L	17	**0.32**	0.042		**0.041**	0.022		**0.050**	0.040	
NO3	mmolc/L	18	**0.040**	0.020		**0.30**	0.020		**0.038**	0.020	
SO4	mmolc/L	16	**0.56**	0.029		**0.61**	0.060		**0.051**	0.020	
Sum Anions	mmolc/L	12	**4.19**	0.23		**1.02**	0.14		**0.30**	0.12	
Cation-Anion Difference	---	5	**0.20**	N/A		**0.41**	N/A		**0.10**	N/A	
Miscellaneous											
Boron	mg/L	14	**0.025**	0.020		**0.073**	0.020		**0.070**	0.020	
PO4-P Phosphorus - Spec	mg/L	4	**0.024**	N/A		**0.050**	N/A		**0.052**	N/A	
Phosphorus - ICP (Total)	mg/L	6	**0.015**	0.020		**0.011**	0.020		**0.010**	0.020	
TKN	mg/L	1				**2.62**	N/A		**0.17**	N/A	
Nitrogen Combustion (Total)	mg/L	1	**0.54**	N/A		**6.49**	N/A		**0.75**	N/A	
Total Organic Carbon	mg/L	2	**0.46**	N/A		**18.5**	N/A		**1.72**	N/A	

Environmental			Soil 2025-101			Soil 2025-102			Soil 2025-103			Soil 2025-104			Soil 2025-105		
Soil Analyses - Modus Code	**Units**	***n***	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**
Metals																	
Ag	mg/kg														**0.19**	N/A	
Al	mg/kg	6	**14300.0**	1200.0		**15200.0**	1290.0		**9560.0**	550.0		**14000.0**	1200.0		**33400.0**	1960.0	
As	mg/kg	5	**5.30**	N/A		**0.66**	N/A		**2.75**	N/A		**3.39**	N/A		**3.01**	0.75	
Ba	mg/kg	3	**133.0**	N/A		**188.0**	N/A		**136.0**	N/A		**141.0**	N/A		**155.0**	N/A	
Be	mg/kg																
Bi	mg/kg																
B	mg/kg	5	**15.6**	N/A		**9.04**	N/A		**5.38**	N/A		**10.7**	N/A		**6.64**	N/A	
Ca	mg/kg	5	**24200.0**	486.0		**6070.0**	N/A		**4990.0**	130.0		**4800.0**	N/A		**4600.0**	112.0	
Cd	mg/kg	5	**0.63**	N/A		**0.77**	N/A		**0.33**	N/A		**0.62**	N/A		**1.17**	N/A	
Co	mg/kg	6	**6.06**	0.38		**17.4**	2.68		**3.26**	0.25		**6.44**	0.52		**18.6**	2.45	
Cr	mg/kg	7	**17.4**	1.88		**15.3**	2.20		**13.0**	N/A		**17.5**	2.73		**35.4**	5.55	
Cu	mg/kg	5	**16.8**	0.34		**16.3**	0.58		**12.6**	0.86		**14.2**	N/A		**25.0**	0.94	
Fe	mg/kg	7	**16400.0**	1100.0		**33600.0**	1710.0		**10700.0**	525.0		**16100.0**	488.0		**40500.0**	1460.0	
K	mg/kg	6	**4390.0**	617.0		**3290.0**	96.0		**907.0**	101.0		**3980.0**	228.0		**1210.0**	36.6	
Li	mg/kg																
Mg	mg/kg	6	**8520.0**	354.0		**5480.0**	156.0		**1480.0**	N/A		**4220.0**	150.0		**3860.0**	76.8	
Mn	mg/kg	4	**347.0**	N/A		**913.0**	40.0		**118.0**	N/A		**566.0**	N/A		**1090.0**	30.0	
Mo	mg/kg	4	**0.97**	N/A		**0.20**	N/A		**0.097**	N/A		**0.35**	N/A		**0.27**	N/A	
Na	mg/kg	7	**166.0**	16.0		**282.0**	52.0		**59.0**	12.8		**152.0**	33.7		**203.0**	40.7	
Ni	mg/kg	5	**14.5**	0.41		**9.06**	N/A		**8.64**	N/A		**13.7**	N/A		**18.1**	1.27	
P	mg/kg	6	**957.0**	56.0		**944.0**	18.8		**393.0**	7.80		**850.0**	16.9		**1420.0**	49.1	
Pb	mg/kg	6	**11.1**	1.54		**6.32**	0.72		**11.7**	N/A		**9.98**	0.70		**8.40**	1.09	
S	mg/kg	7	**379.0**	20.0		**185.0**	N/A		**168.0**	5.75		**185.0**	10.0		**286.0**	8.00	
Sb	mg/kg																
Se	mg/kg					**0.23**	N/A										
Sn	mg/kg																
Sr	mg/kg	1	**121.0**	N/A		**47.2**	N/A		**22.1**	N/A		**29.6**	N/A		**49.3**	N/A	
V	mg/kg	2	**58.2**	N/A		**82.5**	N/A		**26.4**	N/A		**32.2**	N/A		**120.0**	N/A	
Zn	mg/kg	6	**69.1**	3.32		**96.5**	5.47		**26.5**	1.41		**62.7**	2.19		**77.0**	1.84	
Hg (US-EPA 7470 or 7471)	mg/kg	1	**0.014**	N/A		**0.014**	N/A		**0.054**	N/A		**0.014**	N/A		**0.032**	N/A	

n = Number of labs submtting results
MAD = Median Average Deviation
N/A = Not applicable as there are too few labs submitting data for this test to run statistics
H = High - Outside 2.5* +/- MAD VH = Very High - Outside 4* +/- MAD
L = Low - Outside 2.5* +/- MAD VL = Very Low - Outside 4* +/- MAD
✓ = Passing