NAPT Program
North American Proficiency Testing

Soil Science Society of America

2025 North American Proficiency Testing Program
Quarter 3 Report - 10/24/2025

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 2025-111			Soil 2025-112			Soil 2025-113			Soil 2025-114			Soil 2025-115			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	%	20	**47.3**	4.64		**50.7**	4.95		**30.0**	2.51		**49.1**	6.57		**42.2**	5.99		
pH - sp	Unit	24	**6.15**	0.12		**6.90**	0.14		**5.15**	0.10		**7.72**	0.15		**6.60**	0.13		
ECe - sp	dS/m	24	**0.92**	0.12		**0.82**	0.12		**1.49**	0.21		**0.93**	0.085		**1.75**	0.27		
HCO3 - sp	mmolc/L	12	**2.26**	1.59		**2.68**	1.50		**0.40**	0.20		**5.84**	2.53		**1.25**	0.52		
Ca - sp	mmolc/L	21	**6.08**	1.12		**4.87**	0.89		**8.27**	1.55		**5.99**	0.92		**10.1**	1.92		
Mg - sp	mmolc/L	21	**2.87**	0.42		**1.84**	0.29		**3.20**	0.51		**2.60**	0.46		**4.90**	0.87		
Na - sp	mmolc/L	21	**0.28**	0.026		**0.44**	0.040		**0.94**	0.17		**1.18**	0.22		**0.70**	0.12		
SAR - sp	value	18	**0.14**	0.030		**0.22**	0.020		**0.40**	0.030		**0.57**	0.053		**0.27**	0.045		
Cl - sp	mmolc/L	14	**0.23**	0.060		**0.51**	0.040		**0.88**	0.18		**0.54**	0.087		**0.25**	0.075		
SO4 - sp	mmolc/L	14	**1.28**	0.18		**1.11**	0.17		**1.60**	0.29		**1.73**	0.35		**1.38**	0.38		
NO3 - sp	mmolc/L	10	**3.11**	2.25		**2.40**	0.84		**9.64**	1.56		**0.85**	0.91		**9.86**	2.65		
B - sp	mg/L	13	**0.20**	0.050		**0.080**	0.037		**0.048**	0.040		**0.31**	0.020		**0.19**	0.034		
pH & EC (1:1 or 1:2)																		
EC (1:1)	(dS/m)	31	**0.47**	0.057		**0.38**	0.043		**0.43**	0.082		**0.59**	0.043		**0.67**	0.094		
EC (1:2)	(dS/m)	42	**0.30**	0.022		**0.27**	0.028		**0.30**	0.020		**0.34**	0.042		**0.45**	0.040		
pH (1:1) Water	Unit	76	**6.20**	0.12		**7.00**	0.14		**5.33**	0.11		**8.00**	0.16		**6.70**	0.13		
pH (1:2) Water	Unit	21	**6.35**	0.13		**7.09**	0.14		**5.50**	0.14		**8.04**	0.17		**6.85**	0.14		
pH (1:1) 0.01M CaCl2	Unit	19	**5.90**	0.12		**6.62**	0.13		**4.96**	0.10		**7.60**	0.15		**6.43**	0.13		
pH (1:2) 0.01M CaCl2	Unit	9	**5.92**	0.12		**6.61**	0.13		**5.09**	0.14		**7.61**	0.15		**6.50**	0.13		
Lime Req.																		
SMP Buffer pH	Unit	18	**6.90**	0.14		**7.12**	0.14		**6.98**	0.14		**7.47**	0.15		**7.20**	0.14		
Adams-Evans Buf pH	Unit	5	**7.63**	0.15		**7.71**	0.15		**7.70**	0.15		**7.74**	0.16		**7.73**	N/A		
Woodruff Buf. pH	Unit	16	**6.78**	0.14		**6.95**	0.14		**6.74**	0.14		**7.16**	0.14		**6.95**	0.14		
Mehlich Buffer pH	Unit	8	**6.21**	0.12		**6.52**	0.13		**6.26**	0.13		**6.83**	0.14		**6.43**	0.13		
Sikora Buffer pH	Unit	31	**7.00**	0.14		**7.20**	0.14		**7.03**	0.14		**7.52**	0.15		**7.25**	0.15		
Titratable Acidity	cmol/kg																	
Inorganic Nitrogen (NO3-N & NH4-N)																		
NO3-N Cd. Rd.	mg/kg	62	**40.1**	2.34		**31.0**	2.01		**54.7**	3.28		**31.4**	1.15		**83.6**	4.65		
NO3-N ISE	mg/kg	4	**39.5**	N/A		**32.2**	N/A		**57.8**	N/A		**33.3**	N/A		**82.1**	N/A		
NO3-N CTA	mg/kg	1	**36.0**	N/A		**26.6**	N/A		**47.0**	N/A		**25.7**	N/A		**88.0**	N/A		
NO3-N Ion Chr.	mg/kg																	
NO3-N Other	mg/kg	7	**41.7**	1.00		**33.8**	3.57		**58.6**	3.28		**30.2**	1.05		**83.3**	3.27		
NH4 - N (KCl Extr.)	mg/kg	42	**11.9**	0.84		**74.3**	4.23		**28.2**	1.40		**11.2**	0.77		**19.0**	0.95		
Phosphorus and Sulfur																		
PO4-P Bray P (1:10)	mg/kg	40	**40.0**	2.62		**20.8**	1.90		**18.7**	1.35		**25.2**	4.74		**30.9**	2.30		
PO4-P Bray P1 (1:7)	mg/kg	6	**34.2**	3.74		**20.1**	3.37		**13.0**	N/A		**25.8**	5.05		**27.1**	1.57		
PO4-P Olsen/Bicarb	mg/kg	46	**23.0**	2.00		**23.2**	2.60		**9.68**	1.10		**31.7**	1.80		**18.7**	1.81		
PO4-P AB-DTPA	mg/kg	2	**16.2**	N/A		**15.9**	N/A		**9.81**	N/A		**18.2**	N/A		**11.9**	N/A		
PO4-P Modified Morgan	mg/kg	5	**11.5**	N/A		**5.60**	N/A		**1.00**	N/A		**72.2**	N/A		**9.69**	N/A		
PO4-P True Morgan	mg/kg	6	**14.0**	2.05		**6.86**	0.46		**1.48**	N/A		**75.0**	N/A		**11.7**	1.42		
PO4-P Mod. Kelowna	mg/kg	2	**28.6**	N/A		**13.2**	N/A		**5.95**	N/A		**61.0**	N/A		**21.4**	N/A		
PO4-P Stong Bray (1:10)	mg/kg	11	**89.0**	1.96		**73.3**	5.98		**30.0**	4.90		**258.0**	24.7		**76.0**	2.83		
PO4-P Water Soluble	mg/kg																	
SO4 - S (PO4 Extr.)	mg/kg	24	**10.9**	1.50		**9.71**	0.80		**11.6**	0.68		**15.2**	1.31		**11.2**	1.10		
Bases																		

K NH4OAc	mg/kg	62	**255.0**	7.22	**132.0**	8.10	**97.0**	6.52	**665.0**	25.2	**140.0**	4.88
Ca NH4OAc	mg/kg	62	**2540.0**	98.7	**2110.0**	118.0	**680.0**	72.0	**5080.0**	417.0	**2420.0**	115.0
Mg NH4OAc	mg/kg	62	**412.0**	16.0	**274.0**	16.2	**116.0**	10.2	**658.0**	19.5	**450.0**	20.4
Na NH4OAc	mg/kg	54	**14.1**	2.65	**15.1**	2.25	**16.1**	2.41	**45.4**	2.04	**27.5**	2.60
Bray Extractable K	mg/kg	6	**196.0**	8.75	**101.0**	4.13	**83.9**	7.51	**460.0**	18.4	**113.0**	2.25
K- Bicarb.	mg/kg	3	**220.0**	N/A	**123.0**	N/A	**86.0**	N/A	**560.0**	N/A	**137.0**	N/A
K - Modified Morgan	mg/kg	4	**249.0**	N/A	**146.0**	N/A	**90.2**	N/A	**625.0**	N/A	**135.0**	N/A
K - True Morgan	mg/kg	4	**167.0**	N/A	**98.5**	N/A	**65.4**	N/A	**369.0**	N/A	**81.7**	N/A
Ca Modified Morgan	mg/kg	3	**2390.0**	N/A	**2330.0**	N/A	**535.0**	N/A	**13800.0**	N/A	**2280.0**	N/A
Aluminum KCL Extr.	mg/kg	2	**0.30**	N/A	**0.30**	N/A	**2.25**	N/A	**0.60**	N/A	**0.10**	N/A
Mehlich-1 Multi Element												
Scoop Soil Mass	g											
P	mg/kg	6	**67.0**	2.50	**11.2**	1.58	**7.00**	0.14	**49.1**	7.75	**53.2**	1.84
K	mg/kg	8	**145.0**	5.47	**83.5**	1.67	**70.0**	1.70	**267.0**	22.2	**80.0**	5.30
Ca	mg/kg	7	**2520.0**	92.8	**2130.0**	50.0	**639.0**	12.8	**5090.0**	580.0	**2400.0**	133.0
Mg	mg/kg	7	**365.0**	7.30	**254.0**	5.05	**103.0**	3.70	**485.0**	34.1	**388.0**	15.2
Mn	mg/kg	7	**172.0**	N/A	**377.0**	13.0	**25.2**	0.79	**7.08**	1.22	**91.0**	2.00
Zn	mg/kg	7	**3.00**	0.21	**4.00**	0.20	**0.68**	0.025	**0.070**	N/A	**2.57**	0.070
Mehlich-3 Multi-Element												
Scoop Soil Mass	g											
Assumed Density	g/cm3											
Volume of Scoop	cm3											
Extractrant Volume mL	mL											
P Colorimetric	mg/kg	10	**41.0**	1.85	**33.2**	4.35	**16.8**	1.65	**101.0**	4.70	**32.9**	2.70
P ICP-AES	mg/kg	44	**52.0**	1.93	**37.3**	2.88	**20.3**	1.08	**113.0**	3.25	**37.4**	1.27
K	mg/kg	49	**254.0**	14.0	**131.0**	6.28	**100.0**	7.61	**713.0**	26.7	**144.0**	7.31
Ca	mg/kg	45	**2800.0**	108.0	**2350.0**	137.0	**728.0**	32.9	**6670.0**	276.0	**2730.0**	75.7
Mg	mg/kg	46	**452.0**	20.5	**298.0**	17.0	**127.0**	8.17	**806.0**	23.5	**492.0**	12.4
Na	mg/kg	41	**16.0**	1.42	**18.1**	2.20	**18.8**	2.15	**51.0**	2.28	**29.0**	2.22
S	mg/kg	38	**17.6**	1.23	**16.0**	1.00	**18.2**	1.63	**38.4**	1.50	**16.9**	1.01
Al	mg/kg	32	**388.0**	15.2	**473.0**	29.5	**409.0**	25.2	**253.0**	21.0	**360.0**	15.2
Zn	mg/kg	44	**4.42**	0.17	**3.66**	0.080	**0.88**	0.085	**5.00**	0.20	**3.50**	0.16
Mn	mg/kg	43	**309.0**	18.5	**361.0**	22.3	**31.3**	1.53	**124.0**	6.81	**261.0**	18.0
Fe	mg/kg	42	**127.0**	6.15	**526.0**	51.6	**412.0**	29.3	**44.8**	5.17	**147.0**	7.05
Cu	mg/kg	40	**1.60**	0.11	**1.30**	0.36	**0.75**	0.10	**3.09**	0.090	**1.54**	0.060
B	mg/kg	33	**1.10**	0.075	**0.91**	0.12	**0.38**	0.18	**3.73**	0.35	**1.10**	0.080
Micronutrients												
Zn - DTPA	mg/kg	51	**2.81**	0.16	**2.25**	0.17	**0.53**	0.035	**1.88**	0.085	**1.80**	0.10
Mn - DTPA	mg/kg	43	**179.0**	11.8	**192.0**	15.7	**22.6**	1.29	**22.7**	1.61	**67.0**	5.18
Fe - DTPA	mg/kg	47	**41.3**	4.00	**168.0**	20.6	**182.0**	18.8	**4.68**	0.59	**30.2**	3.05
Cu - DTPA	mg/kg	44	**1.06**	0.089	**2.37**	0.21	**0.68**	0.050	**1.38**	0.065	**0.84**	0.055
Zn - HCl	mg/kg	1	**4.60**	N/A	**6.30**	N/A	**0.90**	N/A	**2.50**	N/A	**3.90**	N/A
Mn-H3PO4	mg/kg	8	**143.0**	2.87	**306.0**	19.5	**19.2**	0.39	**10.2**	1.95	**73.5**	5.92
Cl - Ca(NO3)2 Extr.	mg/kg	10	**5.20**	1.57	**9.04**	1.54	**11.0**	1.05	**9.95**	0.95	**3.72**	1.06
B - Hot Wat.	mg/kg	15	**0.82**	0.084	**0.51**	0.070	**0.16**	0.060	**1.69**	0.53	**0.78**	0.100
B - DTPA/Sorbitol	mg/kg	18	**0.46**	0.045	**0.40**	0.050	**0.19**	0.030	**2.16**	0.14	**0.53**	0.058
N & C												
Total N - Kjeldahl	%	8	**0.20**	0.020	**0.18**	0.020	**0.083**	0.020	**0.18**	0.020	**0.14**	0.020
Total N - combustion	%	37	**0.21**	0.020	**0.19**	0.020	**0.078**	0.020	**0.18**	0.020	**0.13**	0.020
TOC - combustion	%	24	**2.25**	0.046	**1.68**	0.050	**0.68**	0.029	**1.57**	0.046	**1.38**	0.070
Total C - combustion	%	42	**2.26**	0.060	**1.76**	0.040	**0.71**	0.025	**2.21**	0.044	**1.41**	0.050
OM - Walkley-Black	%	19	**3.69**	0.26	**2.83**	0.25	**1.26**	0.095	**2.68**	0.11	**2.25**	0.095
OM - LOI (% Wt loss)	%	58	**3.88**	0.15	**3.50**	0.13	**1.46**	0.064	**3.14**	0.18	**2.50**	0.12
Miscellaneous												

CaCO3 Content	%	10	**0.49**	0.19	**0.60**	0.22	**0.31**	0.17	**5.57**	0.35	**0.50**	0.13
CEC - Cation Displacement	cmol/kg	9	**21.0**	3.05	**18.0**	2.60	**5.90**	0.90	**24.0**	3.20	**18.6**	3.00
CEC - Estimation	cmol/kg	11	**18.4**	0.70	**15.0**	1.55	**6.00**	0.90	**33.5**	0.90	**17.5**	1.46
Soil Density (Scoop)	g/cc											
Particle Size Analysis - Hydrometer												
Sand 2000 - 50 um	%	33	**60.8**	2.75	**16.0**	3.00	**82.0**	2.20	**36.0**	1.79	**70.0**	2.50
Silt 50 - 2 um	%	31	**20.0**	2.40	**65.0**	3.35	**9.00**	1.70	**31.0**	2.22	**13.4**	2.50
Clay 2 - 0 um	%	33	**18.8**	1.25	**20.0**	4.00	**10.0**	1.00	**33.9**	3.00	**17.0**	2.00
Particle Size Analysis - Pipette												
Sand 2000 - 50 um	%	4	**60.8**	N/A	**17.8**	N/A	**82.8**	N/A	**37.6**	N/A	**72.8**	N/A
Silt 50 - 2 um	%	4	**22.2**	N/A	**65.4**	N/A	**8.06**	N/A	**30.6**	N/A	**10.8**	N/A
Clay 2 - 0 um	%	4	**17.9**	N/A	**19.9**	N/A	**8.14**	N/A	**35.2**	N/A	**16.0**	N/A
Soil Health												
Autoclave-Citrate Extractable (ACE) protein	mg/g	2	**5.87**	N/A	**5.71**	N/A	**3.74**	N/A	**3.07**	N/A	**3.70**	N/A
Microbial CO2 respiration (1 day incubation-ST	mg/g	6	**0.14**	0.024	**0.15**	0.049	**0.042**	0.024	**0.13**	0.058	**0.050**	0.030
Microbial CO2 respiration (4 day incubation-ST	mg/g	1	**0.23**	N/A	**0.20**	N/A	**0.080**	N/A	**0.19**	N/A	**0.050**	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											
Reactive carbon - permanganate oxidizable (PC	mg/kg	6	**563.0**	86.2	**605.0**	N/A	**229.0**	N/A	**459.0**	47.5	**416.0**	62.3

Plant			Plant 2025-207			Plant 2025-208			Plant 2025-209			PAP Score
Analysis - Modus Code	**Units**	**n**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	
Dry Matter & Non-Digest Nutrients												
Dry Matter	%	15	**93.0**	1.86		**93.0**	1.86		**95.1**	1.91		
NO3 - N Cd Rd.	mg/kg	22	**9920.0**	1030.0		**2370.0**	185.0		**651.0**	91.2		
NO3 - N ISE	mg/kg	3	**10300.0**	N/A		**2930.0**	N/A		**828.0**	N/A		
NO3 - N Other	mg/kg	4	**8800.0**	N/A		**2130.0**	N/A		**630.0**	N/A		
NH4 - N	mg/kg	1	**83.0**	N/A		**32.0**	N/A		**4.00**	N/A		
PO4 - P	mg/kg	9	**1310.0**	69.7		**1890.0**	180.0		**557.0**	44.3		
SO4 - S	mg/kg	4	**1710.0**	N/A		**6950.0**	N/A		**832.0**	N/A		
Cl	%	19	**1.94**	0.095		**1.45**	0.075		**0.25**	0.040		
Total N–Kjeldahl	%	10	**2.88**	0.14		**3.89**	0.14		**2.49**	0.050		
Total N-combustion	%	58	**3.31**	0.066		**3.85**	0.077		**2.52**	0.050		
Total S-combustion	%	4	**0.28**	N/A		**1.00**	N/A		**0.20**	N/A		
Total C-combustion	%	17	**35.8**	0.72		**37.7**	0.80		**44.0**	0.88		
Wet Digest												
P	%	58	**0.23**	0.020		**0.33**	0.020		**0.15**	0.020		
K	%	59	**2.68**	0.063		**2.41**	0.099		**2.07**	0.060		
Ca	%	63	**2.50**	0.11		**2.82**	0.12		**2.52**	0.099		
Mg	%	62	**1.70**	0.056		**1.58**	0.060		**0.45**	0.020		
S	%	58	**0.26**	0.020		**0.83**	0.050		**0.19**	0.020		
Na	%	46	**0.084**	0.020		**0.19**	0.020		**0.040**	0.020		
B	mg/kg	53	**26.4**	1.51		**91.8**	5.10		**243.0**	7.00		
Cu	mg/kg	60	**3.91**	0.36		**15.7**	0.75		**22.9**	1.10		
Fe	mg/kg	60	**335.0**	36.6		**305.0**	32.8		**199.0**	14.0		
Mn	mg/kg	60	**110.0**	7.45		**90.0**	4.17		**80.5**	2.70		
Mo	mg/kg	19	**0.45**	0.081		**0.74**	0.059		**0.34**	0.066		
Zn	mg/kg	61	**53.0**	2.50		**42.7**	4.28		**51.9**	2.50		
Al	mg/kg	36	**273.0**	43.3		**175.0**	22.4		**150.0**	22.5		
Ba	mg/kg	5	**76.0**	N/A		**84.0**	N/A		**38.0**	N/A		
Cd	mg/kg	1	**1.52**	N/A		**0.73**	N/A		**0.022**	N/A		
Co	mg/kg	4	**0.27**	N/A		**0.30**	N/A		**0.17**	N/A		
Cr	mg/kg	4	**2.88**	0.52		**0.86**	0.23		**0.41**	N/A		
Ni	mg/kg	5	**0.98**	N/A		**6.46**	N/A		**2.82**	N/A		
Pb	mg/kg	3	**0.50**	N/A		**0.30**	N/A		**0.20**	N/A		
Se	mg/kg	1	**0.12**	N/A		**0.86**	N/A		**0.12**	N/A		
Sr	mg/kg	5	**94.1**	N/A		**209.0**	N/A		**140.0**	N/A		
V	mg/kg	2	**2.00**	N/A		**11.8**	N/A		**3.10**	N/A		
Dry Ash												
P	%	9	**0.21**	0.020		**0.31**	0.040		**0.14**	0.020		
K	%	7	**2.49**	0.100		**2.28**	0.046		**1.94**	0.039		
Ca	%	9	**2.39**	0.20		**2.77**	0.16		**2.45**	0.081		
Mg	%	9	**1.53**	0.095		**1.39**	0.10		**0.43**	0.020		
Na	%	9	**0.097**	0.020		**0.17**	0.020		**0.052**	0.020		
B	mg/kg	9	**24.9**	2.44		**82.8**	4.13		**232.0**	13.1		
Cu	mg/kg	9	**4.00**	0.77		**14.3**	0.50		**21.6**	1.84		
Fe	mg/kg	10	**359.0**	57.2		**309.0**	62.8		**228.0**	37.6		
Mn	mg/kg	9	**103.0**	8.45		**83.2**	8.21		**75.7**	6.73		
Mo	mg/kg	2	**2.41**	N/A		**1.53**	N/A		**2.45**	N/A		
Zn	mg/kg	9	**47.5**	1.55		**38.4**	4.44		**48.0**	2.77		
Al	mg/kg	3	**406.0**	N/A		**266.0**	N/A		**187.0**	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 2025-307			Water 2025-308			Water 2025-309		
Analysis - Modus Code	**Units**	***n***	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**
pH & EC											
pH		26	**7.55**	0.15		**7.72**	0.15		**7.10**	0.21	
EC	dS/m	23	**0.80**	0.020		**0.78**	0.020		**0.011**	0.020	
Cations											
Ca	mmolc/L	18	**2.38**	0.085		**2.28**	0.085		**0.034**	0.020	
Mg	mmolc/L	18	**1.07**	0.043		**1.19**	0.045		**0.017**	0.020	
Na	mmolc/L	23	**3.53**	0.13		**3.36**	0.11		**0.050**	0.020	
K	mmolc/L	16	**1.07**	0.040		**1.08**	0.021		**0.004**	0.020	
NH4-N	mmolc/L	5	**0.010**	N/A		**0.010**	N/A		**0.010**	N/A	
Sum Cations	mmolc/L	9	**8.18**	0.16		**7.99**	0.16		**0.15**	0.040	
SAR	---	7	**2.63**	0.065		**2.54**	0.050		**0.31**	0.027	
Adj-SAR	---	1	**4.23**	N/A		**4.00**	N/A		**0.10**	N/A	
Anions											
HCO3	mmolc/L	12	**3.32**	0.20		**3.33**	0.13		**0.11**	0.025	
CO3	mmolc/L	4	**0.00**	N/A		**0.00**	N/A		**0.00**	N/A	
Cl	mmolc/L	17	**0.35**	0.035		**0.37**	0.036		**0.030**	0.020	
NO3	mmolc/L	9	**3.07**	0.093		**3.13**	0.062		**0.010**	0.020	
SO4	mmolc/L	15	**5.16**	0.51		**4.81**	0.61		**0.010**	0.020	
Sum Anions	mmolc/L	9	**9.56**	1.64		**9.50**	1.50		**0.29**	0.18	
Cation-Anion Difference	---	5	**0.030**	N/A		**-0.071**	N/A		**0.030**	N/A	
Miscellaneous											
Boron	mg/L	9	**0.065**	0.020		**0.080**	0.020		**0.010**	0.020	
PO4-P Phosphorus - Spec	mg/L	1	**0.32**	N/A		**0.15**	N/A		**0.20**	N/A	
Phosphorus - ICP (Total)	mg/L	5	**0.36**	0.030		**0.30**	0.054		**0.030**	N/A	
TKN	mg/L										
Nitrogen Combustion (Total)	mg/L										
Total Organic Carbon	mg/L	2	**169.0**	N/A		**166.0**	N/A		**1.56**	N/A	

Environmental			Soil 2025-111			Soil 2025-112			Soil 2025-113			Soil 2025-114			Soil 2025-115		
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																
Al	mg/kg	8	**5060.0**	707.0		**9410.0**	1250.0		**3550.0**	382.0		**13200.0**	2500.0		**4590.0**	570.0	
As	mg/kg	5	**4.31**	0.39		**9.40**	0.19		**2.43**	N/A		**6.23**	0.31		**3.00**	0.51	
Ba	mg/kg	3	**108.0**	N/A		**198.0**	N/A		**30.6**	N/A		**119.0**	N/A		**94.8**	N/A	
Be	mg/kg																
Bi	mg/kg																
B	mg/kg	5	**10.8**	1.77		**5.90**	N/A		**3.17**	N/A		**14.7**	N/A		**10.1**	N/A	
Ca	mg/kg	7	**4270.0**	89.4		**3610.0**	72.0		**755.0**	51.9		**24400.0**	599.0		**4010.0**	88.1	
Cd	mg/kg	4	**0.74**	N/A		**0.31**	N/A		**0.071**	N/A		**0.60**	0.049		**0.40**	N/A	
Co	mg/kg	7	**5.68**	0.43		**10.4**	0.30		**2.22**	0.24		**6.08**	0.59		**3.85**	0.26	
Cr	mg/kg	7	**10.4**	1.34		**13.1**	0.35		**7.91**	0.75		**15.4**	2.35		**9.25**	1.59	
Cu	mg/kg	5	**9.04**	0.22		**9.99**	1.26		**3.30**	N/A		**16.7**	0.74		**5.78**	0.16	
Fe	mg/kg	8	**9630.0**	610.0		**15600.0**	1210.0		**7480.0**	363.0		**16600.0**	979.0		**8140.0**	561.0	
K	mg/kg	8	**1430.0**	103.0		**885.0**	97.0		**408.0**	42.0		**4250.0**	404.0		**1010.0**	106.0	
Li	mg/kg																
Mg	mg/kg	7	**2070.0**	118.0		**1570.0**	102.0		**355.0**	21.5		**8600.0**	189.0		**2000.0**	63.3	
Mn	mg/kg	7	**974.0**	22.0		**1450.0**	86.9		**79.4**	4.60		**343.0**	9.62		**674.0**	14.5	
Mo	mg/kg	4	**0.36**	N/A		**0.74**	N/A		**0.30**	N/A		**1.06**	N/A		**0.11**	N/A	
Na	mg/kg	8	**51.5**	12.1		**44.5**	14.4		**23.5**	19.5		**133.0**	23.1		**76.0**	19.1	
Ni	mg/kg	7	**16.4**	0.76		**10.3**	0.48		**3.76**	0.29		**14.2**	0.84		**11.5**	0.56	
P	mg/kg	7	**495.0**	9.90		**545.0**	28.3		**173.0**	4.78		**944.0**	22.9		**376.0**	9.67	
Pb	mg/kg	8	**7.62**	0.65		**19.8**	0.89		**4.28**	0.64		**12.4**	1.49		**5.60**	0.28	
S	mg/kg	8	**230.0**	8.50		**220.0**	4.37		**128.0**	10.6		**374.0**	12.0		**157.0**	3.11	
Sb	mg/kg		**3.04**	N/A		**3.62**	N/A					**10.7**	N/A		**0.49**	N/A	
Se	mg/kg	1	**2.20**	N/A		**3.11**	N/A		**0.22**	N/A		**6.95**	N/A		**1.16**	N/A	
Sn	mg/kg																
Sr	mg/kg	1	**20.4**	N/A		**16.0**	N/A		**15.6**	N/A		**121.0**	N/A		**21.5**	N/A	
V	mg/kg	1	**17.4**	N/A		**21.7**	N/A		**7.77**	N/A		**20.0**	N/A		**9.48**	N/A	
Zn	mg/kg	8	**49.1**	4.19		**41.7**	3.85		**9.07**	3.62		**69.8**	4.78		**40.5**	4.10	
Hg (US-EPA 7470 or 7471)	mg/kg	1	**0.036**	N/A		**0.033**	N/A		**0.009**	N/A		**0.017**	N/A		**0.026**	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