

# Tech Support



Software version:

2.5.2

User name:

UTESE

Time and Date:

2025-08-25 16:37:57

Tray number:

4

Tray name:

COMPASS\_Rhizome\_47-100\_MonMon\_NUTR

## Sulfate

### Calibration data

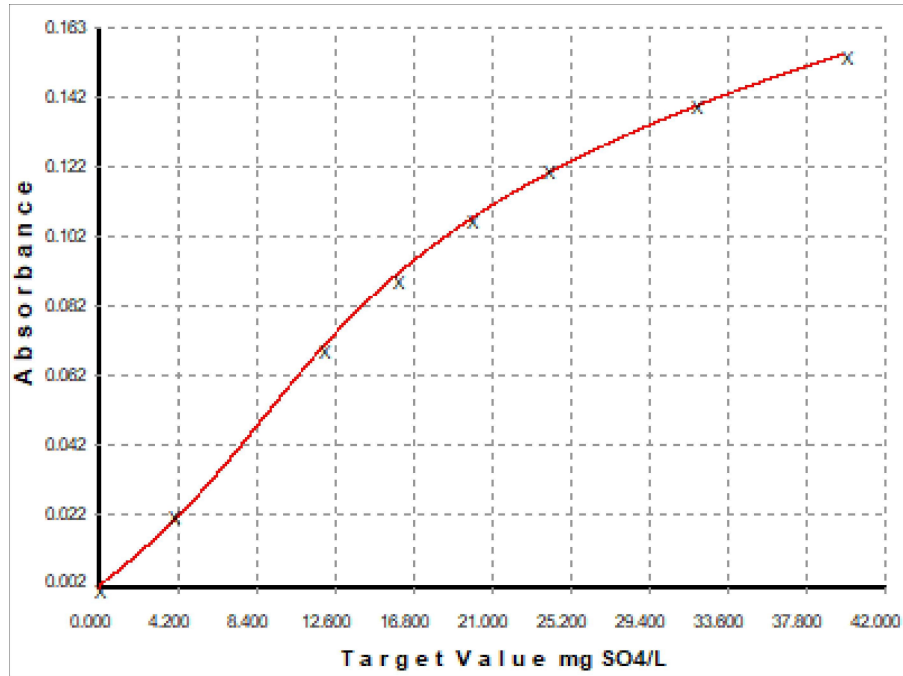
ID	Absorbance	Calc mg SO4/L	Target mg SO4/L	% Error
S1	0.0016	-0.19	0.00	
S90	0.0231	4.36	4.00	8.9537
S91	0.0705	11.90	12.00	-0.8594
S92	0.0907	15.69	16.00	-1.9340
S93	0.1078	19.91	20.00	-0.4378
S94	0.1217	24.34	24.00	1.4242
*95	0.1355	29.82	28.00	6.4981
S96	0.1407	32.22	32.00	0.6879
S97	0.1549	39.77	40.00	-0.5773
S0	0.0018	-0.15	0.00	

### Calibration status

Polynomial order	3
Correlation coefficient	0.9998
RSE (%)	5.41
Carryover(%)	0.1
Calibration equation	y = dx^3 + cx^2 + bx + a
y =	Concentration mg SO4/L
x =	Measured absorbance
a =	-5.962921E-01
b =	2.551334E+02
c =	-2.061281E+03
d =	1.354024E+04
Original Date & Time	2025-08-22 19:05:15 ( 2025-08-22 18:58:50 )



## Calibration graph



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## Reagents

Number	Reagent name	Batch number	User	Expiry date
4	Turbidimetric reagent (sulfate)		seal	
39	DI Water (Blank)		UTESE	

## Test results

Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
		S1	Standard 1	0.00	mg SO4/L	0.001617				UTESE	2025-08-22 18:55:04
		S1	Standard 1	0.03		0.077268				UTESE	2025-08-22 17:21:43
		S90	Standard 90	0.02	mg SO4/L	0.023066				UTESE	2025-08-22 18:55:29
		S90	Standard 90	0.03		0.077268				UTESE	2025-08-22 17:21:43
		S91	Standard 91	0.07	mg SO4/L	0.070541				UTESE	2025-08-22 18:55:55
		S91	Standard 91	0.03		0.077268				UTESE	2025-08-22 17:21:43
		S92	Standard 92	0.09	mg SO4/L	0.090702				UTESE	2025-08-22 18:56:20
		S92	Standard 92	0.03		0.077268				UTESE	2025-08-22 17:21:43
		S93	Standard 93	0.11	mg SO4/L	0.107789				UTESE	2025-08-22 18:56:45
		S93	Standard 93	0.03		0.077268				UTESE	2025-08-22 17:21:43
		S94	Standard 94	0.12	mg SO4/L	0.121733				UTESE	2025-08-22 18:57:10
		S94	Standard 94	0.03		0.077268				UTESE	2025-08-22 17:21:43
		S96	Standard 96	0.14	mg SO4/L	0.140722				UTESE	2025-08-22 18:58:00
		S96	Standard 96	0.03		0.077268				UTESE	2025-08-22 17:21:43
		S97	Standard 97	0.15	mg SO4/L	0.154864				UTESE	2025-08-22 18:58:25
		S97	Standard 97	0.03		0.077268				UTESE	2025-08-22 17:21:43
		S0	Standard 0	0.00	mg SO4/L	0.001760				UTESE	2025-08-22 18:58:50
		S0	Standard 0	0.03		0.077268				UTESE	2025-08-22 17:21:43
		CCV	CCV	18.25	mg SO4/L	0.101613				UTESE	2025-08-22 17:23:24
		CCB	CCB	-0.15	mg SO4/L	0.001770				UTESE	2025-08-22 17:23:50
17	U1	47	1_47_R80_5/29/2024_ch_tr Stream_cm	2.58	mg SO4/L	0.013856				UTESE	2025-08-22 17:24:16
18	U2	48	1_48_R81_5/29/2024_ch_tr Stream_cm	3.52	mg SO4/L	0.018605				UTESE	2025-08-22 17:24:41
19	U3	49	1_49_R82_6/05/2024_ch1_t rC_cm	5.03	mg SO4/L	0.026867				UTESE	2025-08-22 17:25:07
20	U4	50	1_50_R83_6/05/2024_ch2_t rC_cm	4.97	mg SO4/L	0.026525				UTESE	2025-08-22 17:25:32
21	U5	51	1_51_R84_6/05/2024_ch3_t rC_cm	7.13	mg SO4/L	0.039673				UTESE	2025-08-22 17:25:57
22	U6	52	1_52_R85_6/05/2024_ch4_t rC_cm	5.11	mg SO4/L	0.037338				UTESE	2025-08-22 17:26:22

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Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
26	U10	56	1_56_R89_6/12/2024_ch1_t rC_cm	4.40	mg SO4/L	0.023293				UTESE	2025-08-22 17:28:03
	CCV	CCV		17.90	mg SO4/L	0.100228				UTESE	2025-08-22 17:28:28
	CCB	CCB		-0.16	mg SO4/L	0.001722				UTESE	2025-08-22 17:28:54
27	U11	57	1_57_R90_6/12/2024_ch2_t rC_cm	3.60	mg SO4/L	0.019001				UTESE	2025-08-22 17:29:20
28	U12	58	1_58_R91_6/12/2024_ch3_t rC_cm	4.16	mg SO4/L	0.022000				UTESE	2025-08-22 17:29:45
29	U13	59	1_59_R92_6/12/2024_ch4_t rC_cm	4.75	mg SO4/L	0.025278				UTESE	2025-08-22 17:30:10
30	U14	60	1_60_R93_6/12/2024_ch5_t rE_cm	5.51	mg SO4/L	0.029670				UTESE	2025-08-22 17:30:35
31	U15	61	1_61_R94_6/12/2024_ch6_t rE_cm	2.56	mg SO4/L	0.013767				UTESE	2025-08-22 17:31:01
32	U16	62	1_62_R95_6/12/2024_ch7_t rE_cm	6.65	mg SO4/L	0.036653				UTESE	2025-08-22 17:31:26
33	U17	63	1_63_R96_6/12/2024_ch8_t rE_cm	2.68	mg SO4/L	0.014347				UTESE	2025-08-22 17:31:51
34	U18	64	1_64_R97_6/21/2024_ch2_t rC_cm	4.50	mg SO4/L	0.023857				UTESE	2025-08-22 17:32:16
35	U19	65	1_65_R98_6/21/2024_ch5_t rE_cm	4.32	mg SO4/L	0.022869				UTESE	2025-08-22 17:32:42
36	U20	66	1_66_R99_6/21/2024_ch6_t rE_cm	3.32	mg SO4/L	0.017541				UTESE	2025-08-22 17:33:07
	CCV	CCV		17.91	mg SO4/L	0.100281				UTESE	2025-08-22 17:33:32
	CCB	CCB		-0.16	mg SO4/L	0.001743				UTESE	2025-08-22 17:33:58
37	U21	67	1_67_R100_6/21/2024_ch7_t trE_cm	6.30	mg SO4/L	0.034477				UTESE	2025-08-22 17:34:24
38	U22	68	1_68_R101_6/21/2024_ch8_t trE_cm	2.84	mg SO4/L	0.015156				UTESE	2025-08-22 17:34:49
39	U23	69	1_69_R102_6/28/2021_ch2_t trC_cm	4.15	mg SO4/L	0.021911				UTESE	2025-08-22 17:35:14
40	U24	70	1_70_R103_6/28/2024_ch4_t trC_cm	6.88	mg SO4/L	0.038106				UTESE	2025-08-22 17:35:40
41	U25	71	1_71_R104_6/28/2024_ch5_t trE_cm	4.19	mg SO4/L	0.022171				UTESE	2025-08-22 17:36:05

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Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
42	U26	72	1_72_R105_6/28/2024_ch6_ trE_cm	5.04	mg	SO4/L	0.026887			UTESE	2025-08-22 17:36:30
43	U27	73	1_73_R106_6/28/2024_ch7_ trE_cm	4.98	mg	SO4/L	0.026569			UTESE	2025-08-22 17:36:55
44	U28	74	1_74_R107_6/28/2024_ch8_ trE_cm	2.40	mg	SO4/L	0.012989			UTESE	2025-08-22 17:37:21
45	U29	75	1_75_R108_7/03/2024_ch2_ trC_cm	4.29	mg	SO4/L	0.022702			UTESE	2025-08-22 17:37:46
46	U30	76	1_76_R109_7/03/2024_ch4_ trC_cm	6.38	mg	SO4/L	0.034958			UTESE	2025-08-22 17:38:11
	CCV	CCV		18.00	mg	SO4/L	0.100620			UTESE	2025-08-22 17:38:36
	CCB	CCB		-0.15	mg	SO4/L	0.001772			UTESE	2025-08-22 17:39:03
47	U31	77	1_77_R110_7/03/2024_ch5_ trE_cm	3.90	mg	SO4/L	0.020559			UTESE	2025-08-22 17:39:29
48	U32	78	1_78_R111_7/03/2024_ch6_ trE_cm	3.22	mg	SO4/L	0.017027			UTESE	2025-08-22 17:39:54
49	U33	79	1_79_R112_7/03/2024_ch7_ trE_cm	5.13	mg	SO4/L	0.027422			UTESE	2025-08-22 17:40:19
50	U34	80	1_80_R113_7/03/2024_ch8_ trE_cm	2.73	mg	SO4/L	0.014582			UTESE	2025-08-22 17:40:45
51	U35	81	1_81_R114_7/12/2024_ch2_ trC_cm	5.09	mg	SO4/L	0.027190			UTESE	2025-08-22 17:41:10
52	U36	82	1_82_R115_7/12/2024_ch5_ trE_cm	3.49	mg	SO4/L	0.018449			UTESE	2025-08-22 17:41:35
53	U37	83	1_83_R116_7/12/2024_ch6_ trE_cm	5.63	mg	SO4/L	0.030398			UTESE	2025-08-22 17:42:00
54	U38	84	1_84_R117_7/12/2024_ch7_ trE_cm	4.83	mg	SO4/L	0.025694			UTESE	2025-08-22 17:42:26
55	U39	85	1_85_R118_7/12/2024_ch8_ trE_cm	2.79	mg	SO4/L	0.014893			UTESE	2025-08-22 17:42:51
56	U40	86	1_86_R119_7/17/2024_ch5_ trE_cm	4.31	mg	SO4/L	0.022787			UTESE	2025-08-22 17:43:16
	CCV	CCV		17.74	mg	SO4/L	0.099580			UTESE	2025-08-22 17:43:42
	CCB	CCB		-0.18	mg	SO4/L	0.001672			UTESE	2025-08-22 17:44:08

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Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
57	U41	87	1_87_R120_7/17/2024_ch6_ trE_cm	3.84	mg	SO4/L	0.020286			UTESE	2025-08-22 17:44:35
58	U42	88	1_88_R121_7/17/2024_ch7_ trE_cm	10.52	mg	SO4/L	0.061952			UTESE	2025-08-22 17:45:00
59	U43	89	1_89_R122_7/17/2024_ch8_ trE_cm	2.92	mg	SO4/L	0.015526			UTESE	2025-08-22 17:45:25
60	U44	90	1_90_R123_7/24/2024_ch5_ trE_cm	4.25	mg	SO4/L	0.022462			UTESE	2025-08-22 17:45:51
61	U45	91	1_91_R124_7/24/2024_ch6_ trE_cm	3.74	mg	SO4/L	0.019717			UTESE	2025-08-22 17:46:16
62	U46	92	1_92_R125_7/24/2024_ch7_ trE_cm	3.74	mg	SO4/L	0.019718			UTESE	2025-08-22 17:46:42
63	U47	93	1_93_R126_7/24/2024_ch8_ trE_cm	2.62	mg	SO4/L	0.014061			UTESE	2025-08-22 17:47:07
64	U48	94	1_94_R127_7/31/2024_ch5_ trE_cm	4.53	mg	SO4/L	0.024021			UTESE	2025-08-22 17:47:33
65	U49	95	1_95_R128_7/31/2024_ch6_ trE_cm	2.59	mg	SO4/L	0.013903			UTESE	2025-08-22 17:47:57
66	U50	96	1_96_R129_7/31/2024_ch7_ trE_cm	2.87	mg	SO4/L	0.015263			UTESE	2025-08-22 17:48:22
	CCV	CCV		17.50	mg	SO4/L	0.098619			UTESE	2025-08-22 17:48:47
	CCB	CCB		-0.10	mg	SO4/L	0.001963			UTESE	2025-08-22 17:49:14
67	U51	97	1_97_R130_8/05/2024_ch5_ trE_cm	39.94	mg	SO4/L	0.107984		x2.0000	UTESE	2025-08-22 18:59:14
67	U51	97		0.03			0.077268			UTESE	2025-08-22 17:21:43
68	U52	98	1_98_R131_8/05/2024_ch6_ trE_cm	2.51	mg	SO4/L	0.013537			UTESE	2025-08-22 17:50:06
69	U53	99	1_99_R132_8/05/2024_ch7_ trE_cm	3.07	mg	SO4/L	0.016262			UTESE	2025-08-22 17:50:30
70	U54	100	1_100_R133_8/05/2024_ch8_ trE_cm	2.97	mg	SO4/L	0.015799			UTESE	2025-08-22 17:50:55
	CCV	CCV		16.30	mg	SO4/L	0.093483			UTESE	2025-08-22 18:59:39
	CCV	CCV		0.03			0.077268			UTESE	2025-08-22 17:21:43
	CCB	CCB		-0.14	mg	SO4/L	0.001806			UTESE	2025-08-22 19:00:06
	CCB	CCB		0.03			0.077268			UTESE	2025-08-22 17:21:43
	CCV	CCV		17.97	mg	SO4/L	0.100520			UTESE	2025-08-22 18:54:09
	CCB	CCB		-0.21	mg	SO4/L	0.001521			UTESE	2025-08-22 18:54:36

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Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
	CCV	CCV		16.07	mg SO4/L	0.092460				UTESE	2025-08-22 19:00:32
	CCB	CCB		-0.14	mg SO4/L	0.001820				UTESE	2025-08-22 19:00:59

## Test parameters Sulfate

Test number	2		
Long test name	Sulfate	Short test name	SO4
Units	mg SO4/L	Decimal places	2
Test type	End Point		

## Main parameters

Sample volume	400	Water volume	0	Number of mixes	2
Cuvette primes	2	Cuvette washes	2	Baseline on wash	Yes
Cadmium volume	0	Reduction time	10	Diluent location	Reagent 24

## Math parameters

Reaction time	270	Wavelength	405nm	Polynomial order	3
Repeat delta check	0.250	Manual dilution factor	0.000		
Auto dilution factor 1	1.000	Auto dilution factor 2	0.000	Auto dilution factor 3	0.000
Linearity Low	0.0016	Linearity High	0.1549	Latest Slope	1.0000
Alert Low	0.000	Alert High	0.000	Latest Intercept	0.0000

## Reagent parameters

Number of reagents	1			
Reagent	Name	Volume	Delay	Replaced in blank
1	Turbidimetric reagent (sul200)		0	Yes

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## Standards

Auto Std. Number	8	Auto Std. Concentration	40.0000	Exclude the Blank	No
Auto Std. Position	Cup 5	Standard 1 (Blank) Position	Reagent 24	Correlation limit	0.9980

Standard	Value	Standard	Value	Auto Standard	Percentage	Value
1	0.0000			S90	10.0000	4.0000
				S91	30.0000	12.0000
				S92	40.0000	16.0000
				S93	50.0000	20.0000
				S94	60.0000	24.0000
				S95	70.0000	28.0000
				S96	80.0000	32.0000
				S97	100.0000	40.0000

## QC PRO

Control	Low value	High value	Location	Frequency	Start before
CCV	16.0000	24.0000	Reagent 11	10	1
CCB	-0.8000	0.8000	Reagent 24	10	1

Control	%% (+ \ -)	Stock Conc.	Spike added	Location
DUP	0.0000			
SPKA	0.0000	0.0000	0.0000	Cup 105
SPKM	0.0000		0.0000	
SPKD	0.0000			

## Advanced parameters

Set diagnostic slope & intercept	No	Extra debubble action	Yes
Eliminate air from transfer	No	Eliminate air from cuvette wash	No
Extra aspiration steps	0	Smart dilution	No
Extra wash	Yes	Separate waste	Yes
Slow aspiration	No	Diluent preparation order	Reagent first



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## Diagnostics

Cup	Type	Result	Absorbance	T	W
	S1	0.00	0.001617	0.003990	0.002373
	S90	0.02	0.023066	0.025385	0.002319
	S91	0.07	0.070541	0.072835	0.002294
	S92	0.09	0.090702	0.093206	0.002504
	S93	0.11	0.107789	0.110295	0.002505
	S94	0.12	0.121733	0.124319	0.002587
	S96	0.14	0.140722	0.143378	0.002655
	S97	0.15	0.154864	0.157622	0.002758
	S0	0.00	0.001760	0.004537	0.002777
	CCV	18.25	0.101613	0.104440	0.002827
	CCB	-0.15	0.001770	0.004626	0.002856
17	U1	2.58	0.013856	0.016925	0.003068
18	U2	3.52	0.018605	0.021702	0.003097
19	U3	5.03	0.026867	0.029950	0.003083
20	U4	4.97	0.026525	0.029507	0.002982
21	U5	7.13	0.039673	0.042755	0.003081
22	U6	5.11	0.027328	0.030464	0.003137
23	U7	3.78	0.019921	0.022998	0.003077
24	U8	2.86	0.015225	0.018346	0.003121
25	U9	5.50	0.029609	0.032611	0.003002
26	U10	4.40	0.023293	0.026304	0.003010
	CCV	17.90	0.100228	0.103000	0.002772
	CCB	-0.16	0.001722	0.004523	0.002801
27	U11	3.60	0.019001	0.022079	0.003077
28	U12	4.16	0.022000	0.025124	0.003124
29	U13	4.75	0.025278	0.028280	0.003002
30	U14	5.51	0.029670	0.032779	0.003109
31	U15	2.56	0.013767	0.016896	0.003129
32	U16	6.65	0.036653	0.039771	0.003118

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Cup	Type	Result	Absorbance	T	W
33	U17	2.68	0.014347	0.017393	0.003046
34	U18	4.50	0.023857	0.026914	0.003057
35	U19	4.32	0.022869	0.025949	0.003080
36	U20	3.32	0.017541	0.020610	0.003069
	CCV	17.91	0.100281	0.103037	0.002756
	CCB	-0.16	0.001743	0.004536	0.002794
37	U21	6.30	0.034477	0.037506	0.003029
38	U22	2.84	0.015156	0.018366	0.003210
39	U23	4.15	0.021911	0.025082	0.003171
40	U24	6.88	0.038106	0.041287	0.003181
41	U25	4.19	0.022171	0.025267	0.003095
42	U26	5.04	0.026887	0.029909	0.003022
43	U27	4.98	0.026569	0.029684	0.003114
44	U28	2.40	0.012989	0.016115	0.003126
45	U29	4.29	0.022702	0.025835	0.003133
46	U30	6.38	0.034958	0.038011	0.003052
	CCV	18.00	0.100620	0.103393	0.002773
	CCB	-0.15	0.001772	0.004552	0.002780
47	U31	3.90	0.020559	0.023676	0.003117

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Cup	Type	Result	Absorbance	T	W
48	U32	3.22	0.017027	0.020210	0.003183
49	U33	5.13	0.027422	0.030603	0.003181
50	U34	2.73	0.014582	0.017673	0.003091
51	U35	5.09	0.027190	0.030340	0.003150
52	U36	3.49	0.018449	0.021636	0.003188
53	U37	5.63	0.030398	0.033588	0.003190
54	U38	4.83	0.025694	0.028906	0.003212
55	U39	2.79	0.014893	0.018117	0.003224
56	U40	4.31	0.022787	0.025971	0.003185
	CCV	17.74	0.099580	0.102591	0.003011
	CCB	-0.18	0.001672	0.004712	0.003040
57	U41	3.84	0.020286	0.023514	0.003228
58	U42	10.52	0.061952	0.065220	0.003268
59	U43	2.92	0.015526	0.018837	0.003312
60	U44	4.25	0.022462	0.025790	0.003328
61	U45	3.74	0.019717	0.023041	0.003324
62	U46	3.74	0.019718	0.023061	0.003343
63	U47	2.62	0.014061	0.017341	0.003280
64	U48	4.53	0.024021	0.027299	0.003278
65	U49	2.59	0.013903	0.017189	0.003286

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Cup	Type	Result	Absorbance	T	W
66	U50	2.87	0.015263	0.018511	0.003248
	CCV	17.50	0.098619	0.101617	0.002997
	CCB	-0.10	0.001963	0.004861	0.002898
67	U51	39.94	0.107984	0.111065	0.003080
68	U52	2.51	0.013537	0.016821	0.003284
69	U53	3.07	0.016262	0.019595	0.003333
70	U54	2.97	0.015799	0.019168	0.003369
	CCV	16.30	0.093483	0.096336	0.002853
	CCB	-0.14	0.001806	0.004657	0.002851
	CCV	17.97	0.100520	0.102886	0.002366
	CCB	-0.21	0.001521	0.003945	0.002424
	CCV	16.07	0.092460	0.095406	0.002946
	CCB	-0.14	0.001820	0.004726	0.002906

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## Nitrate (NO<sub>x</sub>)

### Calibration data

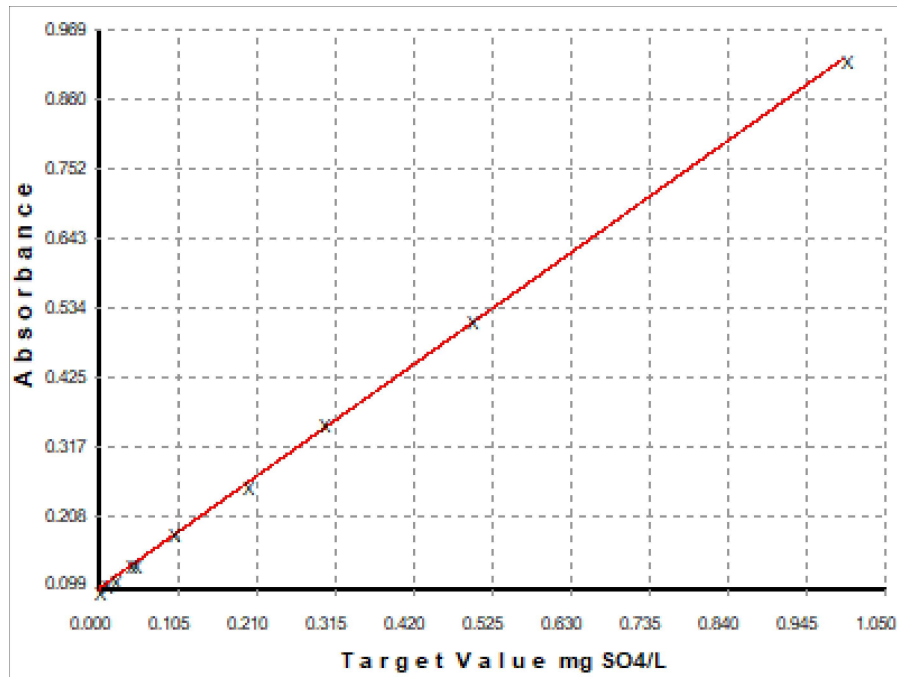
ID	Absorbance	Calc mg N/L	Target mg N/L	% Error
S1	0.0993	-0.0039	0.0000	
S90	0.1094	0.0084	0.0111	-24.2946
S91	0.1176	0.0184	0.0222	-17.3959
S92	0.1410	0.0467	0.0444	4.9942
S93	0.1413	0.0471	0.0500	-5.8223
S94	0.1886	0.1044	0.1000	4.4135
S95	0.2637	0.1954	0.2000	-2.3092
S96	0.3585	0.3102	0.3000	3.4014
S97	0.5210	0.5071	0.5000	1.4158
*98	0.7471	0.7810	0.7500	4.1388
S99	0.9229	0.9940	1.0000	-0.5956
S0	0.1045	0.0025	0.0000	

### Calibration status

Polynomial order	1
Correlation coefficient	0.9998
RSE (%)	11.89
Carryover(%)	0.6
Calibration equation	y = bx + a
y =	Concentration mg N/L
x =	Measured absorbance
a =	-1.241525E-01
b =	1.211650E+00
Original Date & Time	2025-08-22 19:02:15 ( 2025-08-22 15:58:43 )



## Calibration graph



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## Reagents

Number	Reagent name	Batch number	User	Expiry date
13	DI Water 2			
5	Working color reagent (nitrate)		UTESE	
39	DI Water (Blank)		UTESE	

## Test results

Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
		S1	Standard 1	0.0993	mg N/L	0.099275				UTESE	2025-08-22 15:54:03
		S90	Standard 90	0.1094	mg N/L	0.109408				UTESE	2025-08-22 15:54:29
		S91	Standard 91	0.1176	mg N/L	0.117616				UTESE	2025-08-22 15:54:55
		S92	Standard 92	0.1410	mg N/L	0.140979				UTESE	2025-08-22 15:55:20
		S93	Standard 93	0.1413	mg N/L	0.141329				UTESE	2025-08-22 15:55:47
		S94	Standard 94	0.1886	mg N/L	0.188640				UTESE	2025-08-22 15:56:13
		S95	Standard 95	0.2637	mg N/L	0.263718				UTESE	2025-08-22 15:56:38
		S96	Standard 96	0.3585	mg N/L	0.358484				UTESE	2025-08-22 15:57:04
		S97	Standard 97	0.5210	mg N/L	0.520969				UTESE	2025-08-22 15:57:29
		S99	Standard 99	0.9229	mg N/L	0.922871				UTESE	2025-08-22 15:58:18
		S0	Standard 0	0.1045	mg N/L	0.104497				UTESE	2025-08-22 15:58:43
15	REF1	Nitrate Standard	NO3 1 ppm	0.9562	mg N/L	0.891624				UTESE	2025-08-22 15:59:08
16	REF2	Nitrite Standard	NO2 1 ppm	0.9129	mg N/L	0.855925	104.74			UTESE	2025-08-22 15:59:33
	CCV	CCV		0.0936	mg N/L	0.179731				UTESE	2025-08-22 15:59:58
	CCB	CCB		0.0001	mg N/L	0.102556				UTESE	2025-08-22 16:00:23
17	U1	47	1_47_R80_5/29/2024_ch_tr Stream_cm	2.8015	mg N/L	0.564888		x5.0000		UTESE	2025-08-22 18:43:09
17	U1	47		0.0000		0.000000				UTESE	
18	U2	48	1_48_R81_5/29/2024_ch_tr Stream_cm	2.9507	mg N/L	0.589521		x5.0000		UTESE	2025-08-22 18:43:35
18	U2	48		0.0000		0.000000				UTESE	
19	U3	49	1_49_R82_6/05/2024_ch1_t rC_cm	0.0392	mg N/L	0.134828				UTESE	2025-08-22 16:01:38
20	U4	50	1_50_R83_6/05/2024_ch2_t rC_cm	0.1915	mg N/L	0.260483				UTESE	2025-08-22 16:02:03
21	U5	51	1_51_R84_6/05/2024_ch3_t rC_cm	0.0033	mg N/L	0.105195				UTESE	2025-08-22 16:02:28
22	U6	52	1_52_R85_6/05/2024_ch4_t rC_cm	0.0189	mg N/L	0.118095				UTESE	2025-08-22 16:02:52

# Tech Support

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Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
23	U7	53	1_53_R86_6/05/2024_ch5_t rE_cm	0.0016	mg N/L	0.103815				UTESE	2025-08-22 16:03:17
24	U8	54	1_54_R87_6/05/2024_ch6_t rE_cm	0.0300	mg N/L	0.127250				UTESE	2025-08-22 16:03:42
25	U9	55	1_55_R88_6/05/2024_ch7_t rE_cm	0.0007	mg N/L	0.103015				UTESE	2025-08-22 16:04:07
26	U10	56	1_56_R89_6/12/2024_ch1_t rC_cm	0.0077	mg N/L	0.108788				UTESE	2025-08-22 16:04:32
	CCV	CCV		0.0850	mg N/L	0.172613				UTESE	2025-08-22 16:04:56
	CCB	CCB		-0.0002	mg N/L	0.102265				UTESE	2025-08-22 16:05:22
27	U11	57	1_57_R90_6/12/2024_ch2_t rC_cm	0.0366	mg N/L	0.132679				UTESE	2025-08-22 16:05:47
28	U12	58	1_58_R91_6/12/2024_ch3_t rC_cm	-0.0037	mg N/L	0.099447				UTESE	2025-08-22 16:06:12
29	U13	59	1_59_R92_6/12/2024_ch4_t rC_cm	0.0181	mg N/L	0.117403				UTESE	2025-08-22 16:06:37
30	U14	60	1_60_R93_6/12/2024_ch5_t rE_cm	0.0032	mg N/L	0.105108				UTESE	2025-08-22 16:07:02
31	U15	61	1_61_R94_6/12/2024_ch6_t rE_cm	0.0565	mg N/L	0.149112				UTESE	2025-08-22 16:07:26
32	U16	62	1_62_R95_6/12/2024_ch7_t rE_cm	0.0046	mg N/L	0.106299				UTESE	2025-08-22 16:07:51
33	U17	63	1_63_R96_6/12/2024_ch8_t rE_cm	0.2732	mg N/L	0.327939				UTESE	2025-08-22 16:08:16
34	U18	64	1_64_R97_6/21/2024_ch2_t rC_cm	0.2153	mg N/L	0.280196				UTESE	2025-08-22 16:08:41
35	U19	65	1_65_R98_6/21/2024_ch5_t rE_cm	0.2316	mg N/L	0.293623				UTESE	2025-08-22 16:09:06
36	U20	66	1_66_R99_6/21/2024_ch6_t rE_cm	0.0459	mg N/L	0.140309				UTESE	2025-08-22 16:09:30
	CCV	CCV		0.0850	mg N/L	0.172636				UTESE	2025-08-22 16:09:55
	CCB	CCB		-0.0005	mg N/L	0.102048				UTESE	2025-08-22 16:10:20
37	U21	67	1_67_R100_6/21/2024_ch7_t trE_cm	0.0446	mg N/L	0.139304				UTESE	2025-08-22 16:10:46
38	U22	68	1_68_R101_6/21/2024_ch8_t trE_cm	0.0933	mg N/L	0.179441				UTESE	2025-08-22 16:11:11



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Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
39	U23	69	1_69_R102_6/28/2021_ch2_ trC_cm	0.0935	mg N/L	0.179665				UTESE	2025-08-22 16:11:36
40	U24	70	1_70_R103_6/28/2024_ch4_ trC_cm	0.0152	mg N/L	0.114989				UTESE	2025-08-22 16:12:00
41	U25	71	1_71_R104_6/28/2024_ch5_ trE_cm	0.0857	mg N/L	0.173225				UTESE	2025-08-22 16:12:25
42	U26	72	1_72_R105_6/28/2024_ch6_ trE_cm	2.0496	mg N/L	0.440783		x5.0000		UTESE	2025-08-22 19:38:50
42	U26	72		0.0000		0.000000				UTESE	
42	U26	72		0.0000		0.000000				UTESE	
43	U27	73	1_73_R106_6/28/2024_ch7_ trE_cm	0.1194	mg N/L	0.200971				UTESE	2025-08-22 16:13:15
44	U28	74	1_74_R107_6/28/2024_ch8_ trE_cm	0.3215	mg N/L	0.367803				UTESE	2025-08-22 16:13:39
45	U29	75	1_75_R108_7/03/2024_ch2_ trC_cm	0.0624	mg N/L	0.153972				UTESE	2025-08-22 16:14:04
46	U30	76	1_76_R109_7/03/2024_ch4_ trC_cm	0.1078	mg N/L	0.191409				UTESE	2025-08-22 16:14:29
	CCV	CCV		0.0876	mg N/L	0.174759				UTESE	2025-08-22 16:14:54
	CCB	CCB		-0.0022	mg N/L	0.100626				UTESE	2025-08-22 16:15:20
47	U31	77	1_77_R110_7/03/2024_ch5_ trE_cm	0.0976	mg N/L	0.183006				UTESE	2025-08-22 16:15:45
48	U32	78	1_78_R111_7/03/2024_ch6_ trE_cm	0.8010	mg N/L	0.763577				UTESE	2025-08-22 16:16:10
49	U33	79	1_79_R112_7/03/2024_ch7_ trE_cm	0.1395	mg N/L	0.217560				UTESE	2025-08-22 16:16:35
50	U34	80	1_80_R113_7/03/2024_ch8_ trE_cm	0.1270	mg N/L	0.207283				UTESE	2025-08-22 16:17:00
51	U35	81	1_81_R114_7/12/2024_ch2_ trC_cm	0.0800	mg N/L	0.168451				UTESE	2025-08-22 16:17:24
52	U36	82	1_82_R115_7/12/2024_ch5_ trE_cm	0.0872	mg N/L	0.174408				UTESE	2025-08-22 16:17:49
53	U37	83	1_83_R116_7/12/2024_ch6_ trE_cm	8.2601	mg N/L	0.784189		x10.0000		UTESE	2025-08-22 18:44:24
53	U37	83		0.0000		0.000000				UTESE	
54	U38	84	1_84_R117_7/12/2024_ch7_ trE_cm	0.1469	mg N/L	0.223724				UTESE	2025-08-22 16:18:39

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Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
55	U39	85	1_85_R118_7/12/2024_ch8_ trE_cm	0.6626	mg N/L	0.649290				UTESE	2025-08-22 16:19:04
56	U40	86	1_86_R119_7/17/2024_ch5_ trE_cm	0.0197	mg N/L	0.118704				UTESE	2025-08-22 16:19:28
	CCV	CCV		0.0845	mg N/L	0.172243				UTESE	2025-08-22 16:19:53
	CCB	CCB		-0.0046	mg N/L	0.098652				UTESE	2025-08-22 16:20:19
57	U41	87	1_87_R120_7/17/2024_ch6_ trE_cm	7.1724	mg N/L	0.694419		x10.0000		UTESE	2025-08-22 18:44:49
57	U41	87		0.0000		0.000000				UTESE	
58	U42	88	1_88_R121_7/17/2024_ch7_ trE_cm	0.1857	mg N/L	0.255725				UTESE	2025-08-22 16:21:11
59	U43	89	1_89_R122_7/17/2024_ch8_ trE_cm	1.3030	mg N/L	0.640158		x2.0000		UTESE	2025-08-22 18:45:14
59	U43	89		0.0000		0.000000				UTESE	
60	U44	90	1_90_R123_7/24/2024_ch5_ trE_cm	0.0287	mg N/L	0.126154				UTESE	2025-08-22 16:22:03
61	U45	91	1_91_R124_7/24/2024_ch6_ trE_cm	10.8365	mg N/L	0.549646		x20.0000		UTESE	2025-08-22 19:39:15
61	U45	91		0.0000		0.000000				UTESE	
61	U45	91		0.0000		0.000000				UTESE	
62	U46	92	1_92_R125_7/24/2024_ch7_ trE_cm	0.4847	mg N/L	0.502468				UTESE	2025-08-22 16:22:55
63	U47	93	1_93_R126_7/24/2024_ch8_ trE_cm	0.5886	mg N/L	0.588256				UTESE	2025-08-22 16:23:23
64	U48	94	1_94_R127_7/31/2024_ch5_ trE_cm	0.0534	mg N/L	0.146508				UTESE	2025-08-22 16:23:48
65	U49	95	1_95_R128_7/31/2024_ch6_ trE_cm	0.1741	mg N/L	0.246178				UTESE	2025-08-22 16:24:15
66	U50	96	1_96_R129_7/31/2024_ch7_ trE_cm	4.9100	mg N/L	0.507701		x10.0000		UTESE	2025-08-22 18:46:03
66	U50	96		0.0000		0.000000				UTESE	
	CCV	CCV		0.1048	mg N/L	0.188960				UTESE	2025-08-22 16:25:08
	CCB	CCB		-0.0038	mg N/L	0.099332				UTESE	2025-08-22 16:25:35
67	U51	97	1_97_R130_8/05/2024_ch5_ trE_cm	0.2439	mg N/L	0.303782				UTESE	2025-08-22 16:26:03
68	U52	98	1_98_R131_8/05/2024_ch6_ trE_cm	0.1499	mg N/L	0.226203				UTESE	2025-08-22 16:26:29

# Tech Support



Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
69	U53	99	1_99_R132_8/05/2024_ch7_ trE_cm	2.6395	mg N/L	0.538152		x5.0000		UTESE	2025-08-22 18:46:28
69	U53	99		0.0000		0.000000				UTESE	
70	U54	100	1_100_R133_8/05/2024_ch8 _trE_cm	0.0218	mg N/L	0.120472				UTESE	2025-08-22 16:27:21
71	REF1	Nitrate Standard	NO3 1 ppm	0.9611	mg N/L	0.895692				UTESE	2025-08-22 16:27:47
72	REF2	Nitrite Standard	NO2 1 ppm	0.8968	mg N/L	0.842579	107.18			UTESE	2025-08-22 16:28:14
	CCV	CCV		0.0899	mg N/L	0.176680				UTESE	2025-08-22 16:28:42
	CCB	CCB		-0.0036	mg N/L	0.099490				UTESE	2025-08-22 16:29:10

## Test parameters Nitrate (NOx)

Test number	3		
Long test name	Nitrate (NOx)	Short test name	NOx_NO3
Units	mg N/L	Decimal places	4
Test type	End Point		

## Main parameters

Sample volume	180	Water volume	0	Number of mixes	1
Cuvette primes	2	Cuvette washes	2	Baseline on wash	Yes
Cadmium volume	0	Reduction time	10	Diluent location	Reagent 24

## Math parameters

Reaction time	1825	Wavelength	520nm	Polynomial order	1
Repeat delta check	0.250	Manual dilution factor	0.000		
Auto dilution factor 1	1.000	Auto dilution factor 2	0.000	Auto dilution factor 3	0.000
Linearity Low	0.0993	Linearity High	0.9229	Latest Slope	1.2116
Alert Low	0.000	Alert High	0.000	Latest Intercept	-0.1242

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## Reagent parameters

Number of reagents 2

Reagent	Name	Volume	Delay	Replaced in blank
1	DI Water 2	10	0	No
2	Working color reagent (nit310)		27	No

## Standards

Auto Std. Number 10 Auto Std. Concentration 1.0000 Exclude the Blank No  
Auto Std. Position Cup 3 Standard 1 (Blank) Position Reagent 24 Correlation limit 0.9980

Standard	Value	Standard	Value	Auto Standard	Percentage	Value
1	0.0000			S90	1.1111	0.0111
				S91	2.2222	0.0222
				S92	4.4444	0.0444
				S93	5.0000	0.0500
				S94	10.0000	0.1000
				S95	20.0000	0.2000
				S96	30.0000	0.3000
				S97	50.0000	0.5000
				S98	75.0000	0.7500
				S99	100.0000	1.0000

## QC PRO

Control	Low value	High value	Location	Frequency	Start before
CCV	0.0000	0.1000	Reagent 12	10	1
CCB	-0.0200	0.0200	Reagent 24	10	1
Control	%% (+ \ -)	Stock Conc.	Spike added	Location	
DUP	0.0000				
SPKA	0.0000	3.0000	0.2500	Cup 103	
SPKM	0.0000		0.0000		
SPKD	0.0000				

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## Advanced parameters

Set diagnostic slope & intercept	No	Extra debubble action	No
Eliminate air from transfer	No	Eliminate air from cuvette wash	No
Extra aspiration steps	0	Smart dilution	No
Extra wash	Yes	Separate waste	Yes
Slow aspiration	No	Diluent preparation order	Reagent first

## Diagnostics

Cup	Type	Result	Absorbance	T	W
	S1	0.0993	0.099275	0.100529	0.001254
	S90	0.1094	0.109408	0.110617	0.001209
	S91	0.1176	0.117616	0.118810	0.001195
	S92	0.1410	0.140979	0.142157	0.001179
	S93	0.1413	0.141329	0.142468	0.001139
	S94	0.1886	0.188640	0.189838	0.001198
	S95	0.2637	0.263718	0.264932	0.001213
	S96	0.3585	0.358484	0.359717	0.001233
	S97	0.5210	0.520969	0.522187	0.001218
	S99	0.9229	0.922871	0.924107	0.001236
	S0	0.1045	0.104497	0.105630	0.001133
15	REF1	0.9562	0.891624	0.892808	0.001184
16	REF2	0.9129	0.855925	0.857131	0.001206
	CCV	0.0936	0.179731	0.180967	0.001235
	CCB	0.0001	0.102556	0.103695	0.001138
17	U1	2.8015	0.564888	0.567034	0.002145
18	U2	2.9507	0.589521	0.591645	0.002124
19	U3	0.0392	0.134828	0.136076	0.001248
20	U4	0.1915	0.260483	0.261792	0.001309
21	U5	0.0033	0.105195	0.106510	0.001315
22	U6	0.0189	0.118095	0.119363	0.001268
23	U7	0.0016	0.103815	0.105031	0.001216

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Cup	Type	Result	Absorbance	T	W
24	U8	0.0300	0.127250	0.128494	0.001244
25	U9	0.0007	0.103015	0.104298	0.001283
26	U10	0.0077	0.108788	0.110044	0.001257
	CCV	0.0850	0.172613	0.173890	0.001277
	CCB	-0.0002	0.102265	0.103813	0.001548
27	U11	0.0366	0.132679	0.134055	0.001376
28	U12	-0.0037	0.099447	0.100754	0.001308
29	U13	0.0181	0.117403	0.118841	0.001438
30	U14	0.0032	0.105108	0.106453	0.001345
31	U15	0.0565	0.149112	0.150450	0.001337
32	U16	0.0046	0.106299	0.107665	0.001365
33	U17	0.2732	0.327939	0.329350	0.001411
34	U18	0.2153	0.280196	0.281572	0.001376
35	U19	0.2316	0.293623	0.295081	0.001458
36	U20	0.0459	0.140309	0.141788	0.001479
	CCV	0.0850	0.172636	0.174098	0.001461
	CCB	-0.0005	0.102048	0.103483	0.001435
37	U21	0.0446	0.139304	0.140822	0.001518
38	U22	0.0933	0.179441	0.180919	0.001478
39	U23	0.0935	0.179665	0.181182	0.001517

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Cup	Type	Result	Absorbance	T	W
40	U24	0.0152	0.114989	0.116544	0.001555
41	U25	0.0857	0.173225	0.174846	0.001621
42	U26	2.0496	0.440783	0.443277	0.002493
43	U27	0.1194	0.200971	0.202591	0.001621
44	U28	0.3215	0.367803	0.369464	0.001661
45	U29	0.0624	0.153972	0.155632	0.001660
46	U30	0.1078	0.191409	0.193070	0.001662
	CCV	0.0876	0.174759	0.176539	0.001780
	CCB	-0.0022	0.100626	0.102364	0.001739
47	U31	0.0976	0.183006	0.184770	0.001764
48	U32	0.8010	0.763577	0.765442	0.001865
49	U33	0.1395	0.217560	0.219366	0.001807
50	U34	0.1270	0.207283	0.209088	0.001805
51	U35	0.0800	0.168451	0.170225	0.001774
52	U36	0.0872	0.174408	0.176289	0.001881
53	U37	8.2601	0.784189	0.786347	0.002158
54	U38	0.1469	0.223724	0.225613	0.001888
55	U39	0.6626	0.649290	0.651112	0.001822
56	U40	0.0197	0.118704	0.120443	0.001739

# Tech Support

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Cup	Type	Result	Absorbance	T	W
	CCV	0.0845	0.172243	0.173981	0.001738
	CCB	-0.0046	0.098652	0.100425	0.001773
57	U41	7.1724	0.694419	0.696551	0.002132
58	U42	0.1857	0.255725	0.257638	0.001913
59	U43	1.3030	0.640158	0.642392	0.002234
60	U44	0.0287	0.126154	0.128122	0.001968
61	U45	10.8365	0.549646	0.552127	0.002482
62	U46	0.4847	0.502468	0.504398	0.001930
63	U47	0.5886	0.588256	0.590282	0.002026
64	U48	0.0534	0.146508	0.148379	0.001872
65	U49	0.1741	0.246178	0.248068	0.001890
66	U50	4.9100	0.507701	0.509896	0.002195
	CCV	0.1048	0.188960	0.191021	0.002061
	CCB	-0.0038	0.099332	0.101261	0.001930
67	U51	0.2439	0.303782	0.305778	0.001996
68	U52	0.1499	0.226203	0.228216	0.002013
69	U53	2.6395	0.538152	0.540323	0.002171
70	U54	0.0218	0.120472	0.122561	0.002089
71	REF1	0.9611	0.895692	0.897828	0.002136
72	REF2	0.8968	0.842579	0.844719	0.002139
	CCV	0.0899	0.176680	0.178756	0.002076



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Cup	Type	Result	Absorbance	T	W
	CCB	-0.0036	0.099490	0.101541	0.002051

# Tech Support

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## Phosphate

### Calibration data

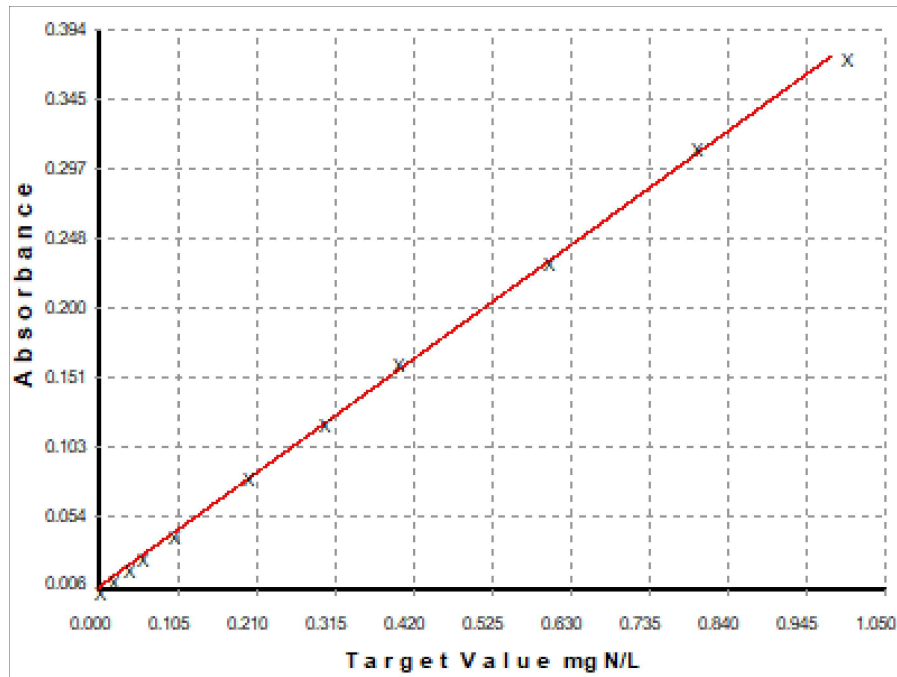
ID	Absorbance	Calc mg P/L	Target mg P/L	% Error
S1	0.0059	-0.005	0.000	
S90	0.0135	0.015	0.020	-25.9142
S91	0.0212	0.035	0.040	-11.5190
S92	0.0288	0.056	0.060	-7.0414
S93	0.0447	0.098	0.100	-1.8761
S94	0.0850	0.206	0.200	2.7780
S95	0.1222	0.305	0.300	1.5701
S96	0.1633	0.414	0.400	3.5943
S97	0.2344	0.604	0.600	0.6574
S98	0.3128	0.813	0.800	1.6436
S99	0.3752	0.980	1.000	-2.0432
S0	0.0098	0.005	0.000	

### Calibration status

Polynomial order	1
Correlation coefficient	0.9996
RSE (%)	10.53
Carryover(%)	1.1
Calibration equation	$y = bx + a$
y =	Concentration mg P/L
x =	Measured absorbance
a =	-2.109148E-02
b =	2.666738E+00
Original Date & Time	2025-08-22 16:36:57



## Calibration graph



# Tech Support

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## Reagents

Number	Reagent name	Batch number	User	Expiry date
6	Working color reagent (fosfate)		UTESE	
7	Working ascorbic acid (fosfate)		UTESE	
39	DI Water (Blank)		UTESE	

## Test results

Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
		S1	Standard 1	0.006	mg P/L	0.005879				UTESE	2025-08-22 16:32:10
		S90	Standard 90	0.013	mg P/L	0.013465				UTESE	2025-08-22 16:32:36
		S91	Standard 91	0.021	mg P/L	0.021181				UTESE	2025-08-22 16:33:02
		S92	Standard 92	0.029	mg P/L	0.028824				UTESE	2025-08-22 16:33:28
		S93	Standard 93	0.045	mg P/L	0.044705				UTESE	2025-08-22 16:33:54
		S94	Standard 94	0.085	mg P/L	0.084991				UTESE	2025-08-22 16:34:20
		S95	Standard 95	0.122	mg P/L	0.122172				UTESE	2025-08-22 16:34:47
		S96	Standard 96	0.163	mg P/L	0.163296				UTESE	2025-08-22 16:35:12
		S97	Standard 97	0.234	mg P/L	0.234382				UTESE	2025-08-22 16:35:38
		S98	Standard 98	0.313	mg P/L	0.312832				UTESE	2025-08-22 16:36:04
		S99	Standard 99	0.375	mg P/L	0.375237				UTESE	2025-08-22 16:36:31
		S0	Standard 0	0.010	mg P/L	0.009789				UTESE	2025-08-22 16:36:57
		CCV	CCV	0.073	mg P/L	0.035388				UTESE	2025-08-22 16:37:23
		CCB	CCB	0.001	mg P/L	0.008189				UTESE	2025-08-22 16:37:49
17	U1	47	1_47_R80_5/29/2024_ch_tr Stream_cm	0.100	mg P/L	0.045242				UTESE	2025-08-22 16:38:16
18	U2	48	1_48_R81_5/29/2024_ch_tr Stream_cm	0.080	mg P/L	0.037771				UTESE	2025-08-22 16:38:43
19	U3	49	1_49_R82_6/05/2024_ch1_t rC_cm	0.024	mg P/L	0.016948				UTESE	2025-08-22 16:39:09
20	U4	50	1_50_R83_6/05/2024_ch2_t rC_cm	0.017	mg P/L	0.014123				UTESE	2025-08-22 16:39:36
21	U5	51	1_51_R84_6/05/2024_ch3_t rC_cm	-0.005	mg P/L	0.006081				UTESE	2025-08-22 16:40:02
22	U6	52	1_52_R85_6/05/2024_ch4_t rC_cm	0.050	mg P/L	0.026612				UTESE	2025-08-22 16:40:28
23	U7	53	1_53_R86_6/05/2024_ch5_t rE_cm	-0.009 ELL	mg P/L	0.004390				UTESE	2025-08-22 16:40:54
24	U8	54	1_54_R87_6/05/2024_ch6_t rE_cm	-0.003	mg P/L	0.006698				UTESE	2025-08-22 16:41:20

# Tech Support

**SEAL**  
Analytical



Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
25	U9	55	1_55_R88_6/05/2024_ch7_t rE_cm	0.011	mg P/L	0.012062				UTESE	2025-08-22 16:41:47
26	U10	56	1_56_R89_6/12/2024_ch1_t rC_cm	0.023	mg P/L	0.016626				UTESE	2025-08-22 16:42:13
	CCV	CCV		0.072	mg P/L	0.034775				UTESE	2025-08-22 16:42:39
	CCB	CCB		0.001	mg P/L	0.008229				UTESE	2025-08-22 16:43:05
27	U11	57	1_57_R90_6/12/2024_ch2_t rC_cm	0.035	mg P/L	0.021215				UTESE	2025-08-22 16:43:33
28	U12	58	1_58_R91_6/12/2024_ch3_t rC_cm	-0.005	mg P/L	0.006053				UTESE	2025-08-22 16:43:58
29	U13	59	1_59_R92_6/12/2024_ch4_t rC_cm	0.026	mg P/L	0.017586				UTESE	2025-08-22 16:44:25
30	U14	60	1_60_R93_6/12/2024_ch5_t rE_cm	-0.007 ELL	mg P/L	0.005245				UTESE	2025-08-22 16:44:52
31	U15	61	1_61_R94_6/12/2024_ch6_t rE_cm	-0.009 ELL	mg P/L	0.004648				UTESE	2025-08-22 16:45:18
32	U16	62	1_62_R95_6/12/2024_ch7_t rE_cm	0.028 AVF	mg P/L	0.018504				UTESE	2025-08-22 18:50:16
32	U16	62		0.000		0.000000				UTESE	
33	U17	63	1_63_R96_6/12/2024_ch8_t rE_cm	0.008	mg P/L	0.010810				UTESE	2025-08-22 16:46:11
34	U18	64	1_64_R97_6/21/2024_ch2_t rC_cm	0.027	mg P/L	0.017901				UTESE	2025-08-22 16:46:37
35	U19	65	1_65_R98_6/21/2024_ch5_t rE_cm	0.041	mg P/L	0.023309				UTESE	2025-08-22 16:47:03
36	U20	66	1_66_R99_6/21/2024_ch6_t rE_cm	0.005	mg P/L	0.009910				UTESE	2025-08-22 16:47:30
	CCV	CCV		0.075	mg P/L	0.035891				UTESE	2025-08-22 16:47:56
	CCB	CCB		-0.001	mg P/L	0.007405				UTESE	2025-08-22 16:48:23
37	U21	67	1_67_R100_6/21/2024_ch7_t trE_cm	-0.005	mg P/L	0.005949				UTESE	2025-08-22 16:48:50
38	U22	68	1_68_R101_6/21/2024_ch8_t trE_cm	-0.001	mg P/L	0.007674				UTESE	2025-08-22 16:49:16
39	U23	69	1_69_R102_6/28/2021_ch2_t trC_cm	0.051	mg P/L	0.026941				UTESE	2025-08-22 16:49:42
40	U24	70	1_70_R103_6/28/2024_ch4_t trC_cm	0.165	mg P/L	0.069817				UTESE	2025-08-22 16:50:08

# Tech Support

**SEAL**  
Analytical



Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
41	U25	71	1_71_R104_6/28/2024_ch5_ trE_cm	0.050	mg P/L	0.026747				UTESE	2025-08-22 16:50:33
42	U26	72	1_72_R105_6/28/2024_ch6_ trE_cm	0.027	mg P/L	0.018191				UTESE	2025-08-22 16:50:59
43	U27	73	1_73_R106_6/28/2024_ch7_ trE_cm	0.001	mg P/L	0.008448				UTESE	2025-08-22 16:51:25
44	U28	74	1_74_R107_6/28/2024_ch8_ trE_cm	-0.007 ELL	mg P/L	0.005214				UTESE	2025-08-22 16:51:51
45	U29	75	1_75_R108_7/03/2024_ch2_ trC_cm	0.059	mg P/L	0.029973				UTESE	2025-08-22 16:52:17
46	U30	76	1_76_R109_7/03/2024_ch4_ trC_cm	0.114	mg P/L	0.050607				UTESE	2025-08-22 16:52:43
	CCV	CCV		0.075	mg P/L	0.036016				UTESE	2025-08-22 16:53:09
	CCB	CCB		-0.002	mg P/L	0.007283				UTESE	2025-08-22 16:53:35
47	U31	77	1_77_R110_7/03/2024_ch5_ trE_cm	0.037	mg P/L	0.021673				UTESE	2025-08-22 16:54:03
48	U32	78	1_78_R111_7/03/2024_ch6_ trE_cm	0.009	mg P/L	0.011407				UTESE	2025-08-22 16:54:30
49	U33	79	1_79_R112_7/03/2024_ch7_ trE_cm	0.000	mg P/L	0.007935				UTESE	2025-08-22 16:54:56
50	U34	80	1_80_R113_7/03/2024_ch8_ trE_cm	-0.001	mg P/L	0.007395				UTESE	2025-08-22 16:55:22
51	U35	81	1_81_R114_7/12/2024_ch2_ trC_cm	0.055	mg P/L	0.028474				UTESE	2025-08-22 16:55:48
52	U36	82	1_82_R115_7/12/2024_ch5_ trE_cm	0.011	mg P/L	0.012126				UTESE	2025-08-22 16:56:15
53	U37	83	1_83_R116_7/12/2024_ch6_ trE_cm	0.046	mg P/L	0.025051				UTESE	2025-08-22 16:56:40
54	U38	84	1_84_R117_7/12/2024_ch7_ trE_cm	0.014	mg P/L	0.013138				UTESE	2025-08-22 16:57:07
55	U39	85	1_85_R118_7/12/2024_ch8_ trE_cm	0.011	mg P/L	0.011909				UTESE	2025-08-22 16:57:33
56	U40	86	1_86_R119_7/17/2024_ch5_ trE_cm	0.048	mg P/L	0.025770				UTESE	2025-08-22 16:57:59
	CCV	CCV		0.072	mg P/L	0.035051				UTESE	2025-08-22 16:58:24

# Tech Support

**SEAL**  
Analytical



Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
	CCB	CCB		-0.002	mg P/L	0.007135				UTESE	2025-08-22 16:58:50
57	U41	87	1_87_R120_7/17/2024_ch6_ trE_cm	0.023	mg P/L	0.016672				UTESE	2025-08-22 16:59:16
58	U42	88	1_88_R121_7/17/2024_ch7_ trE_cm	-0.001	mg P/L	0.007413				UTESE	2025-08-22 16:59:40
59	U43	89	1_89_R122_7/17/2024_ch8_ trE_cm	0.006	mg P/L	0.010310				UTESE	2025-08-22 17:00:05
60	U44	90	1_90_R123_7/24/2024_ch5_ trE_cm	0.030	mg P/L	0.019346				UTESE	2025-08-22 17:00:30
61	U45	91	1_91_R124_7/24/2024_ch6_ trE_cm	0.013	mg P/L	0.012819				UTESE	2025-08-22 17:00:55
62	U46	92	1_92_R125_7/24/2024_ch7_ trE_cm	-0.005	mg P/L	0.005975				UTESE	2025-08-22 17:01:19
63	U47	93	1_93_R126_7/24/2024_ch8_ trE_cm	0.002	mg P/L	0.008770				UTESE	2025-08-22 17:01:44
64	U48	94	1_94_R127_7/31/2024_ch5_ trE_cm	0.032	mg P/L	0.019803				UTESE	2025-08-22 17:02:09
65	U49	95	1_95_R128_7/31/2024_ch6_ trE_cm	-0.004	mg P/L	0.006545				UTESE	2025-08-22 17:02:34
66	U50	96	1_96_R129_7/31/2024_ch7_ trE_cm	0.015	mg P/L	0.013617				UTESE	2025-08-22 17:02:59
	CCV	CCV		0.075	mg P/L	0.036124				UTESE	2025-08-22 17:03:23
	CCB	CCB		-0.003	mg P/L	0.006706				UTESE	2025-08-22 17:03:49
67	U51	97	1_97_R130_8/05/2024_ch5_ trE_cm	0.021	mg P/L	0.015759				UTESE	2025-08-22 17:04:16
68	U52	98	1_98_R131_8/05/2024_ch6_ trE_cm	-0.000	mg P/L	0.007838				UTESE	2025-08-22 17:04:40
69	U53	99	1_99_R132_8/05/2024_ch7_ trE_cm	0.013 AVF	mg P/L	0.012846				UTESE	2025-08-22 18:50:41
69	U53	99		0.000		0.000000				UTESE	
70	U54	100	1_100_R133_8/05/2024_ch8_ trE_cm	-0.000	mg P/L	0.007725				UTESE	2025-08-22 17:05:30
	CCV	CCV		0.073	mg P/L	0.035106				UTESE	2025-08-22 18:51:07
	CCV	CCV		0.000		0.000000				UTESE	
	CCB	CCB		-0.003	mg P/L	0.006666				UTESE	2025-08-22 17:06:21
	CCV	CCV		0.070	mg P/L	0.034148				UTESE	2025-08-22 18:49:22
	CCB	CCB		-0.010	mg P/L	0.004311				UTESE	2025-08-22 18:49:49
	CCV	CCV		1.686	mg P/L	0.639985				UTESE	2025-08-22 18:51:33

# Tech Support

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Cup Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
CCB	CCB		-0.009	mg P/L	0.004633				UTESE	2025-08-22 18:52:00

## Test parameters Phosphate

Test number	4		
Long test name	Phosphate	Short test name	PO4
Units	mg P/L	Decimal places	3
Test type	End Point		

## Main parameters

Sample volume	400	Water volume	0	Number of mixes	2
Cuvette primes	4	Cuvette washes	2	Baseline on wash	Yes
Cadmium volume	0	Reduction time	10	Diluent location	Reagent 24

## Math parameters

Reaction time	480	Wavelength	880nm	Polynomial order	1
Repeat delta check	0.250	Manual dilution factor	0.000		
Auto dilution factor 1	1.000	Auto dilution factor 2	0.000	Auto dilution factor 3	0.000
Linearity Low	0.0059	Linearity High	0.3752	Latest Slope	2.6667
Alert Low	0.000	Alert High	0.000	Latest Intercept	-0.0211

## Reagent parameters

Number of reagents	2			
Reagent	Name	Volume	Delay	Replaced in blank
1	Working color reagent (fo:140:		0	No
2	Working ascorbic acid (fo:45te)		27	No



# Tech Support

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## Standards

Auto Std. Number	10	Auto Std. Concentration	1.0000	Exclude the Blank	No
Auto Std. Position	Cup 4	Standard 1 (Blank) Position	Reagent 24	Correlation limit	0.9980

Standard	Value	Standard	Value	Auto Standard	Percentage	Value
1	0.0000			S90	2.0000	0.0200
				S91	4.0000	0.0400
				S92	6.0000	0.0600
				S93	10.0000	0.1000
				S94	20.0000	0.2000
				S95	30.0000	0.3000
				S96	40.0000	0.4000
				S97	60.0000	0.6000
				S98	80.0000	0.8000
				S99	100.0000	1.0000

## QC PRO

Control	Low value	High value	Location	Frequency	Start before
CCV	0.0000	0.2000	Reagent 13	10	1
CCB	-0.0200	0.0200	Reagent 24	10	1

Control	%% (+ \ -)	Stock Conc.	Spike added	Location
DUP	0.0000			
SPKA	10.0000	5.0000	0.2500	Cup 104
SPKM	0.0000		0.0000	
SPKD	0.0000			

## Advanced parameters

Set diagnostic slope & intercept	No	Extra debubble action	No
Eliminate air from transfer	No	Eliminate air from cuvette wash	No
Extra aspiration steps	0	Smart dilution	No
Extra wash	Yes	Separate waste	Yes
Slow aspiration	No	Diluent preparation order	Reagent first

# Tech Support

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## Diagnostics

Cup	Type	Result	Absorbance	T	W
	S1	0.006	0.005879	0.009149	0.003270
	S90	0.013	0.013465	0.015964	0.002499
	S91	0.021	0.021181	0.023540	0.002359
	S92	0.029	0.028824	0.031016	0.002192
	S93	0.045	0.044705	0.047123	0.002418
	S94	0.085	0.084991	0.087766	0.002776
	S95	0.122	0.122172	0.125581	0.003409
	S96	0.163	0.163296	0.167167	0.003871
	S97	0.234	0.234382	0.238954	0.004572
	S98	0.313	0.312832	0.317719	0.004887
	S99	0.375	0.375237	0.380973	0.005735
	S0	0.010	0.009789	0.012655	0.002866
	CCV	0.073	0.035388	0.038733	0.003345
	CCB	0.001	0.008189	0.010080	0.001891
17	U1	0.100	0.045242	0.048159	0.002917
18	U2	0.080	0.037771	0.040539	0.002767
19	U3	0.024	0.016948	0.019155	0.002207
20	U4	0.017	0.014123	0.016383	0.002261
21	U5	-0.005	0.006081	0.007999	0.001919
22	U6	0.050	0.026612	0.028728	0.002115
23	U7	-0.009 ELL	0.004390	0.006150	0.001760
24	U8	-0.003	0.006698	0.008152	0.001455
25	U9	0.011	0.012062	0.013800	0.001738
26	U10	0.023	0.016626	0.018345	0.001718
	CCV	0.072	0.034775	0.036857	0.002082
	CCB	0.001	0.008229	0.009351	0.001122

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Cup	Type	Result	Absorbance	T	W
27	U11	0.035	0.021215	0.022929	0.001714
28	U12	-0.005	0.006053	0.007619	0.001566
29	U13	0.026	0.017586	0.019449	0.001863
30	U14	-0.007 ELL	0.005245	0.006634	0.001389
31	U15	-0.009 ELL	0.004648	0.006101	0.001453
32	U16	0.028 AVF	0.018504	0.021609	0.003105
33	U17	0.008	0.010810	0.012110	0.001299
34	U18	0.027	0.017901	0.019276	0.001375
35	U19	0.041	0.023309	0.024878	0.001569
36	U20	0.005	0.009910	0.011347	0.001437
	CCV	0.075	0.035891	0.037484	0.001593
	CCB	-0.001	0.007405	0.008993	0.001588
37	U21	-0.005	0.005949	0.007281	0.001332
38	U22	-0.001	0.007674	0.008960	0.001286
39	U23	0.051	0.026941	0.028666	0.001724
40	U24	0.165	0.069817	0.071714	0.001897
41	U25	0.050	0.026747	0.028602	0.001855
42	U26	0.027	0.018191	0.019948	0.001756
43	U27	0.001	0.008448	0.009968	0.001520
44	U28	-0.007 ELL	0.005214	0.006391	0.001178

# Tech Support

**SEAL**  
Analytical



Cup	Type	Result	Absorbance	T	W
45	U29	0.059	0.029973	0.031705	0.001732
46	U30	0.114	0.050607	0.052561	0.001954
	CCV	0.075	0.036016	0.037976	0.001960
	CCB	-0.002	0.007283	0.008869	0.001586
47	U31	0.037	0.021673	0.023435	0.001762
48	U32	0.009	0.011407	0.013033	0.001626
49	U33	0.000	0.007935	0.009433	0.001499
50	U34	-0.001	0.007395	0.008842	0.001447
51	U35	0.055	0.028474	0.030199	0.001725
52	U36	0.011	0.012126	0.013675	0.001549
53	U37	0.046	0.025051	0.026724	0.001673
54	U38	0.014	0.013138	0.014722	0.001584
55	U39	0.011	0.011909	0.013380	0.001471
56	U40	0.048	0.025770	0.027387	0.001616
	CCV	0.072	0.035051	0.036912	0.001861
	CCB	-0.002	0.007135	0.008665	0.001531
57	U41	0.023	0.016672	0.018259	0.001587
58	U42	-0.001	0.007413	0.008903	0.001491
59	U43	0.006	0.010310	0.011785	0.001475
60	U44	0.030	0.019346	0.020905	0.001559

# Tech Support

**SEAL**  
Analytical



Cup	Type	Result	Absorbance	T	W
61	U45	0.013	0.012819	0.014279	0.001461
62	U46	-0.005	0.005975	0.007403	0.001429
63	U47	0.002	0.008770	0.010084	0.001314
64	U48	0.032	0.019803	0.021218	0.001414
65	U49	-0.004	0.006545	0.007970	0.001425
66	U50	0.015	0.013617	0.015015	0.001399
	CCV	0.075	0.036124	0.037837	0.001713
	CCB	-0.003	0.006706	0.008220	0.001513
67	U51	0.021	0.015759	0.017315	0.001556
68	U52	-0.000	0.007838	0.009270	0.001431
69	U53	0.013 AVF	0.012846	0.015720	0.002875
70	U54	-0.000	0.007725	0.010858	0.003134
	CCV	0.073	0.035106	0.037621	0.002515
	CCB	-0.003	0.006666	0.009988	0.003322
	CCV	0.070	0.034148	0.038565	0.004417
	CCB	-0.010	0.004311	0.007890	0.003578
	CCV	1.686	0.639985	0.645841	0.005856
	CCB	-0.009	0.004633	0.008384	0.003751



## Nitrite

### Calibration data

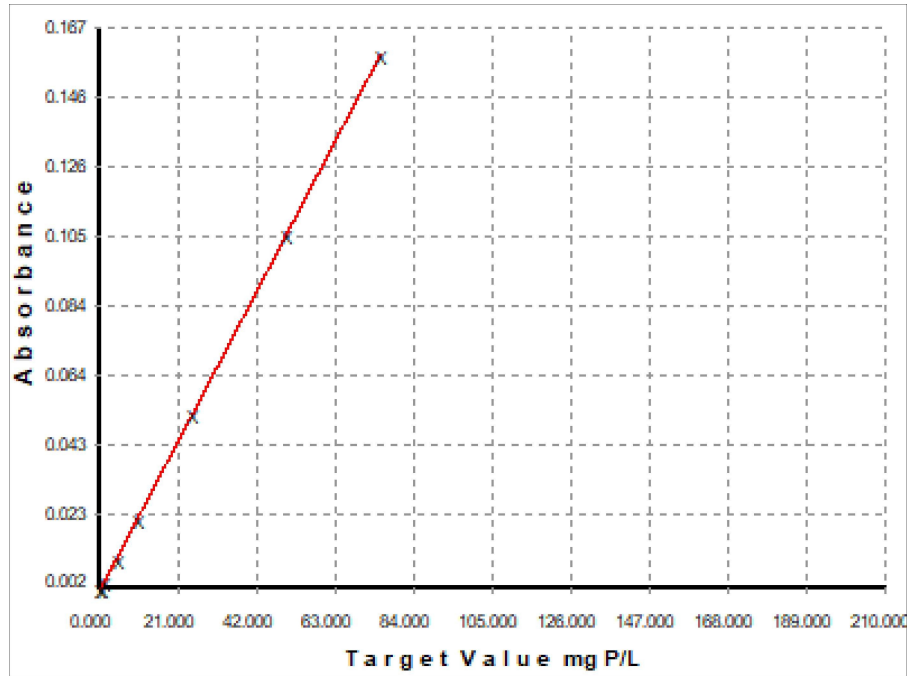
ID	Absorbance	Calc ug N/L	Target ug N/L	% Error
S1	0.0020	0.46	0.00	
S90	0.0024	0.61	0.89	-31.2832
S91	0.0045	1.63	1.78	-8.5621
S92	0.0112	4.80	4.89	-1.7661
S93	0.0225	10.20	10.22	-0.2463
S94	0.0537	25.06	24.89	0.6814
S95	0.1063	50.09	50.22	-0.2577
S96	0.1589	75.16	75.11	0.0616
*97	0.3297	156.52	150.22	4.1904
*98	0.4051	192.47	200.00	-3.7652
S0	0.0076	3.08	0.00	

### Calibration status

Polynomial order	1
Correlation coefficient	1.0000
RSE (%)	14.53
Carryover(%)	0.0
Calibration equation	y = bx + a
y =	Concentration ug N/L
x =	Measured absorbance
a =	-5.208476E-01
b =	4.763462E+02
Original Date & Time	2025-08-22 15:09:46 ( 2025-08-22 14:45:42 )



## Calibration graph



# Tech Support

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## Reagents

Number	Reagent name	Batch number	User	Expiry date
14	Sulfa-NEDD (NO2)			

## Test results

Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
		S1	Standard 1	0.00	ug N/L	0.002049				UTESE	2025-08-22 14:41:41
		S90	1ppb NO2-N	0.00	ug N/L	0.002376				UTESE	2025-08-22 14:42:05
		S91	2ppb NO2-N	0.00	ug N/L	0.004506				UTESE	2025-08-22 14:42:30
		S92	5ppb NO2-N	0.01	ug N/L	0.011175				UTESE	2025-08-22 14:42:53
		S93	10ppb NO2-N	0.02	ug N/L	0.022500				UTESE	2025-08-22 14:43:17
		S94	25ppb NO2-N	0.05	ug N/L	0.053699				UTESE	2025-08-22 14:43:42
		S95	50ppb NO2-N	0.11	ug N/L	0.106254				UTESE	2025-08-22 14:44:06
		S96	75ppb NO2-N	0.16	ug N/L	0.158872				UTESE	2025-08-22 14:44:30
		S0	Standard 0	0.01	ug N/L	0.007562				UTESE	2025-08-22 14:45:42
		CCV	CCV	5.16	ug N/L	0.011926				UTESE	2025-08-22 14:46:06
		CCB	CCB	0.19	ug N/L	0.001488				UTESE	2025-08-22 14:46:31
17	U1	47	1_47_R80_5/29/2024_ch_tr Stream_cm	27.41	ug N/L	0.058628				UTESE	2025-08-22 14:46:55
18	U2	48	1_48_R81_5/29/2024_ch_tr Stream_cm	32.15	ug N/L	0.068581				UTESE	2025-08-22 14:47:19
19	U3	49	1_49_R82_6/05/2024_ch1_t rC_cm	3.87	ug N/L	0.009210				UTESE	2025-08-22 14:47:44
20	U4	50	1_50_R83_6/05/2024_ch2_t rC_cm	21.43	ug N/L	0.046090				UTESE	2025-08-22 14:48:08
21	U5	51	1_51_R84_6/05/2024_ch3_t rC_cm	1.89	ug N/L	0.005067				UTESE	2025-08-22 14:48:32
22	U6	52	1_52_R85_6/05/2024_ch4_t rC_cm	2.96	ug N/L	0.007303				UTESE	2025-08-22 14:48:56
23	U7	53	1_53_R86_6/05/2024_ch5_t rE_cm	1.25	ug N/L	0.003726				UTESE	2025-08-22 14:49:20
24	U8	54	1_54_R87_6/05/2024_ch6_t rE_cm	1.83	ug N/L	0.004933				UTESE	2025-08-22 14:49:44
25	U9	55	1_55_R88_6/05/2024_ch7_t rE_cm	1.59	ug N/L	0.004435				UTESE	2025-08-22 14:50:08
26	U10	56	1_56_R89_6/12/2024_ch1_t rC_cm	1.54	ug N/L	0.004320				UTESE	2025-08-22 14:50:32
		CCV	CCV	4.51	ug N/L	0.010563				UTESE	2025-08-22 14:50:56



# Tech Support

**SEAL**  
Analytical



Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
29	U13	59	1_59_R92_6/12/2024_ch4_t rC_cm	2.62	ug N/L	0.006600				UTESE	2025-08-22 14:52:33
30	U14	60	1_60_R93_6/12/2024_ch5_t rE_cm	1.14	ug N/L	0.003484				UTESE	2025-08-22 14:52:57
31	U15	61	1_61_R94_6/12/2024_ch6_t rE_cm	1.86	ug N/L	0.004999				UTESE	2025-08-22 14:53:21
32	U16	62	1_62_R95_6/12/2024_ch7_t rE_cm	1.56	ug N/L	0.004374				UTESE	2025-08-22 14:53:45
33	U17	63	1_63_R96_6/12/2024_ch8_t rE_cm	7.06	ug N/L	0.015904				UTESE	2025-08-22 14:54:09
34	U18	64	1_64_R97_6/21/2024_ch2_t rC_cm	11.26	ug N/L	0.024732				UTESE	2025-08-22 14:54:33
35	U19	65	1_65_R98_6/21/2024_ch5_t rE_cm	2.31	ug N/L	0.005940				UTESE	2025-08-22 14:54:58
36	U20	66	1_66_R99_6/21/2024_ch6_t rE_cm	1.45	ug N/L	0.004141				UTESE	2025-08-22 14:55:22
	CCV	CCV		4.56	ug N/L	0.010664				UTESE	2025-08-22 14:55:46
	CCB	CCB		-0.06	ug N/L	0.000964				UTESE	2025-08-22 14:56:10
37	U21	67	1_67_R100_6/21/2024_ch7_t trE_cm	2.52	ug N/L	0.006386				UTESE	2025-08-22 14:56:35
38	U22	68	1_68_R101_6/21/2024_ch8_t trE_cm	4.58	ug N/L	0.010713				UTESE	2025-08-22 14:56:59
39	U23	69	1_69_R102_6/28/2021_ch2_t trC_cm	2.25	ug N/L	0.005813				UTESE	2025-08-22 14:57:23
40	U24	70	1_70_R103_6/28/2024_ch4_t trC_cm	3.70	ug N/L	0.008863				UTESE	2025-08-22 14:57:47
41	U25	71	1_71_R104_6/28/2024_ch5_t trE_cm	1.65	ug N/L	0.004550				UTESE	2025-08-22 14:58:12
42	U26	72	1_72_R105_6/28/2024_ch6_t trE_cm	2.03	ug N/L	0.005349				UTESE	2025-08-22 14:58:36
43	U27	73	1_73_R106_6/28/2024_ch7_t trE_cm	4.03	ug N/L	0.009561				UTESE	2025-08-22 14:59:00
44	U28	74	1_74_R107_6/28/2024_ch8_t trE_cm	2.58	ug N/L	0.006510				UTESE	2025-08-22 14:59:24
45	U29	75	1_75_R108_7/03/2024_ch2_t trC_cm	1.95	ug N/L	0.005178				UTESE	2025-08-22 14:59:48
46	U30	76	1_76_R109_7/03/2024_ch4_t trC_cm	6.07	ug N/L	0.013833				UTESE	2025-08-22 15:00:12

# Tech Support

**SEAL**  
Analytical



Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
		CCV	CCV	4.47	ug N/L	0.010474				UTESE	2025-08-22 15:00:36
		CCB	CCB	-0.08	ug N/L	0.000916				UTESE	2025-08-22 15:01:01
47	U31	77	1_77_R110_7/03/2024_ch5_ trE_cm	1.91	ug N/L	0.005094				UTESE	2025-08-22 15:01:26
48	U32	78	1_78_R111_7/03/2024_ch6_ trE_cm	1.37	ug N/L	0.003974				UTESE	2025-08-22 15:01:50
49	U33	79	1_79_R112_7/03/2024_ch7_ trE_cm	3.55	ug N/L	0.008555				UTESE	2025-08-22 15:02:14
50	U34	80	1_80_R113_7/03/2024_ch8_ trE_cm	1.46	ug N/L	0.004149				UTESE	2025-08-22 15:02:38
51	U35	81	1_81_R114_7/12/2024_ch2_ trC_cm	2.93	ug N/L	0.007236				UTESE	2025-08-22 15:03:02
52	U36	82	1_82_R115_7/12/2024_ch5_ trE_cm	1.93	ug N/L	0.005138				UTESE	2025-08-22 15:03:26
53	U37	83	1_83_R116_7/12/2024_ch6_ trE_cm	2.80	ug N/L	0.006981				UTESE	2025-08-22 15:03:50
54	U38	84	1_84_R117_7/12/2024_ch7_ trE_cm	2.22	ug N/L	0.005764				UTESE	2025-08-22 15:04:15
55	U39	85	1_85_R118_7/12/2024_ch8_ trE_cm	1.53	ug N/L	0.004308				UTESE	2025-08-22 15:04:39
56	U40	86	1_86_R119_7/17/2024_ch5_ trE_cm	1.76	ug N/L	0.004781				UTESE	2025-08-22 15:05:03
		CCV	CCV	4.45	ug N/L	0.010434				UTESE	2025-08-22 15:05:27
		CCB	CCB	-0.03	ug N/L	0.001033				UTESE	2025-08-22 15:05:52
57	U41	87	1_87_R120_7/17/2024_ch6_ trE_cm	2.08	ug N/L	0.005469				UTESE	2025-08-22 15:06:17
58	U42	88	1_88_R121_7/17/2024_ch7_ trE_cm	9.48	ug N/L	0.020989				UTESE	2025-08-22 15:06:41
59	U43	89	1_89_R122_7/17/2024_ch8_ trE_cm	2.05	ug N/L	0.005390				UTESE	2025-08-22 15:07:05
60	U44	90	1_90_R123_7/24/2024_ch5_ trE_cm	2.09	ug N/L	0.005489				UTESE	2025-08-22 15:07:29
61	U45	91	1_91_R124_7/24/2024_ch6_ trE_cm	2.20	ug N/L	0.005714				UTESE	2025-08-22 15:07:52
62	U46	92	1_92_R125_7/24/2024_ch7_ trE_cm	1.97	ug N/L	0.005220				UTESE	2025-08-22 15:08:16

# Tech Support

SEAL  
Analytical



Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
63	U47	93	1_93_R126_7/24/2024_ch8_ trE_cm	1.92	ug N/L	0.005119				UTESE	2025-08-22 15:08:40
64	U48	94	1_94_R127_7/31/2024_ch5_ trE_cm	3.44	ug N/L	0.008320				UTESE	2025-08-22 15:09:05
65	U49	95	1_95_R128_7/31/2024_ch6_ trE_cm	1.59	ug N/L	0.004422				UTESE	2025-08-22 15:09:28
66	U50	96	1_96_R129_7/31/2024_ch7_ trE_cm	1.91	ug N/L	0.005112				UTESE	2025-08-22 15:09:52
	CCV	CCV		4.56	ug N/L	0.010664				UTESE	2025-08-22 15:10:16
	CCB	CCB		-0.08	ug N/L	0.000919				UTESE	2025-08-22 15:10:41
67	U51	97	1_97_R130_8/05/2024_ch5_ trE_cm	1.76	ug N/L	0.004786				UTESE	2025-08-22 15:11:05
68	U52	98	1_98_R131_8/05/2024_ch6_ trE_cm	1.16	ug N/L	0.003527				UTESE	2025-08-22 15:11:29
69	U53	99	1_99_R132_8/05/2024_ch7_ trE_cm	2.83	ug N/L	0.007035				UTESE	2025-08-22 15:11:53
70	U54	100	1_100_R133_8/05/2024_ch8_ trE_cm	1.87	ug N/L	0.005022				UTESE	2025-08-22 15:12:17
	CCV	CCV		4.44	ug N/L	0.010411				UTESE	2025-08-22 15:12:41
	CCB	CCB		-0.10	ug N/L	0.000889				UTESE	2025-08-22 15:13:05

# Tech Support

**SEAL**  
Analytical



## Test parameters Nitrite

Test number	8	Short test name	NO2
Long test name	Nitrite	Decimal places	2
Units	ug N/L		
Test type	End Point		

## Main parameters

Sample volume	450	Water volume	0	Number of mixes	2
Cuvette primes	1	Cuvette washes	2	Baseline on wash	Yes
Cadmium volume	0	Reduction time	10	Diluent location	Reagent 24

## Math parameters

Reaction time	360	Wavelength	520nm	Polynomial order	1
Repeat delta check	0.250	Manual dilution factor	0.000		
Auto dilution factor 1	1.000	Auto dilution factor 2	0.000	Auto dilution factor 3	0.000
Linearity Low	0.0020	Linearity High	0.1589	Latest Slope	476.3462
Alert Low	0.000	Alert High	0.000	Latest Intercept	-0.5208

## Reagent parameters

Number of reagents 1

Reagent	Name	Volume	Delay	Replaced in blank
1	Sulfa-NEDD (NO2)	50	0	No

# Tech Support

**SEAL**  
Analytical



## Standards

Auto Std. Number	9	Auto Std. Concentration	200.0000	Exclude the Blank	No
Auto Std. Position	Cup 2	Standard 1 (Blank) Position	Reagent 24	Correlation limit	0.9980

Standard	Value	Standard	Value	Auto Standard	Percentage	Value
1	0.0000			S90	0.4444	0.8889
				S91	0.8889	1.7778
				S92	2.4444	4.8889
				S93	5.1111	10.2222
				S94	12.4444	24.8889
				S95	25.1111	50.2222
				S96	37.5556	75.1111
				S97	75.1111	150.2222
				S98	100.0000	200.0000

## QC PRO

Control	Low value	High value	Location	Frequency	Start before
CCV	1.0000	9.0000	Reagent 17	10	1
CCB	-4.0000	4.0000	Reagent 24	10	1

Control	%% (+ \ -)	Stock Conc.	Spike added	Location
DUP	0.0000			
SPKA	0.0000	0.0000	0.0000	Cup 102
SPKM	0.0000		0.0000	
SPKD	0.0000			

## Advanced parameters

Set diagnostic slope & intercept	No	Extra debubble action	Yes
Eliminate air from transfer	Yes	Eliminate air from cuvette wash	No
Extra aspiration steps	0	Smart dilution	No
Extra wash	Yes	Separate waste	Yes
Slow aspiration	No	Diluent preparation order	Reagent first

# Tech Support

**SEAL**  
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## Diagnostics

Cup	Type	Result	Absorbance	T	W
	S1	0.00	0.002049	0.002901	0.000852
	S90	0.00	0.002376	0.003276	0.000901
	S91	0.00	0.004506	0.005437	0.000931
	S92	0.01	0.011175	0.012121	0.000946
	S93	0.02	0.022500	0.023491	0.000991
	S94	0.05	0.053699	0.054684	0.000985
	S95	0.11	0.106254	0.107304	0.001050
	S96	0.16	0.158872	0.159874	0.001002
	S0	0.01	0.007562	0.008700	0.001138
	CCV	5.16	0.011926	0.012938	0.001012
	CCB	0.19	0.001488	0.002540	0.001052
17	U1	27.41	0.058628	0.059765	0.001137
18	U2	32.15	0.068581	0.069753	0.001172
19	U3	3.87	0.009210	0.010314	0.001104
20	U4	21.43	0.046090	0.047294	0.001204
21	U5	1.89	0.005067	0.006280	0.001213
22	U6	2.96	0.007303	0.008439	0.001135
23	U7	1.25	0.003726	0.005020	0.001294
24	U8	1.83	0.004933	0.006068	0.001136
25	U9	1.59	0.004435	0.005635	0.001199
26	U10	1.54	0.004320	0.005447	0.001128
	CCV	4.51	0.010563	0.011717	0.001154
	CCB	-0.00	0.001085	0.002282	0.001197
27	U11	2.24	0.005799	0.006913	0.001114
28	U12	1.48	0.004207	0.005385	0.001178
29	U13	2.62	0.006600	0.007747	0.001147
30	U14	1.14	0.003484	0.004729	0.001244
31	U15	1.86	0.004999	0.006095	0.001096
32	U16	1.56	0.004374	0.005572	0.001199

# Tech Support

**SEAL**  
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Cup	Type	Result	Absorbance	T	W
33	U17	7.06	0.015904	0.017072	0.001168
34	U18	11.26	0.024732	0.025939	0.001207
35	U19	2.31	0.005940	0.007155	0.001215
36	U20	1.45	0.004141	0.005274	0.001132
	CCV	4.56	0.010664	0.011819	0.001155
	CCB	-0.06	0.000964	0.002096	0.001132
37	U21	2.52	0.006386	0.007588	0.001202
38	U22	4.58	0.010713	0.011955	0.001242
39	U23	2.25	0.005813	0.007133	0.001320
40	U24	3.70	0.008863	0.010047	0.001184
41	U25	1.65	0.004550	0.005785	0.001235
42	U26	2.03	0.005349	0.006569	0.001220
43	U27	4.03	0.009561	0.010749	0.001187
44	U28	2.58	0.006510	0.007731	0.001220
45	U29	1.95	0.005178	0.006342	0.001163
46	U30	6.07	0.013833	0.015069	0.001235
	CCV	4.47	0.010474	0.011659	0.001185
	CCB	-0.08	0.000916	0.002128	0.001212
47	U31	1.91	0.005094	0.006304	0.001210

# Tech Support

**SEAL**  
Analytical



Cup	Type	Result	Absorbance	T	W
48	U32	1.37	0.003974	0.005202	0.001228
49	U33	3.55	0.008555	0.009736	0.001182
50	U34	1.46	0.004149	0.005345	0.001196
51	U35	2.93	0.007236	0.008447	0.001211
52	U36	1.93	0.005138	0.006411	0.001273
53	U37	2.80	0.006981	0.008237	0.001256
54	U38	2.22	0.005764	0.006945	0.001180
55	U39	1.53	0.004308	0.005579	0.001271
56	U40	1.76	0.004781	0.005970	0.001190
	CCV	4.45	0.010434	0.011665	0.001231
	CCB	-0.03	0.001033	0.002178	0.001145
57	U41	2.08	0.005469	0.006622	0.001153
58	U42	9.48	0.020989	0.022147	0.001158
59	U43	2.05	0.005390	0.006558	0.001167
60	U44	2.09	0.005489	0.006736	0.001246
61	U45	2.20	0.005714	0.006937	0.001223
62	U46	1.97	0.005220	0.006494	0.001274
63	U47	1.92	0.005119	0.006287	0.001168
64	U48	3.44	0.008320	0.009603	0.001282
65	U49	1.59	0.004422	0.005625	0.001203



# Tech Support

**SEAL**  
Analytical



Cup	Type	Result	Absorbance	T	W
66	U50	1.91	0.005112	0.006357	0.001245
	CCV	4.56	0.010664	0.011830	0.001166
	CCB	-0.08	0.000919	0.002157	0.001238
67	U51	1.76	0.004786	0.005887	0.001101
68	U52	1.16	0.003527	0.004498	0.000971
69	U53	2.83	0.007035	0.008059	0.001024
70	U54	1.87	0.005022	0.005970	0.000948
	CCV	4.44	0.010411	0.011349	0.000938
	CCB	-0.10	0.000889	0.001818	0.000929

# Tech Support

**SEAL**  
Analytical



## Ammonia (PPS)

### Calibration data

ID	Absorbance	Calc mg N/L	Target mg N/L	% Error
S1	0.0017	-0.0126	0.0000	
S90	0.0046	0.0393	0.0400	-1.6510
S91	0.0061	0.0669	0.0800	-16.3345
S92	0.0089	0.1195	0.1200	-0.4360
S93	0.0115	0.1663	0.1600	3.9309
S94	0.0137	0.2065	0.2000	3.2721
S95	0.0254	0.4202	0.4000	5.0414
*96	0.0370	0.6304	0.6000	5.0638
*97	0.0559	0.9755	1.0000	-2.4471
S98	0.0844	1.4938	1.5000	-0.4110
*99	0.1102	1.9641	2.0000	-1.7927
S0	0.0023	-0.0019	0.0000	

### Calibration status

Polynomial order	1
Correlation coefficient	0.9998
RSE (%)	8.02
Carryover(%)	0.0
Calibration equation	$y = bx + a$
y =	Concentration mg N/L
x =	Measured absorbance
a =	-4.358300E-02
b =	1.822273E+01
Original Date & Time	2025-08-22 15:12:36 ( 2025-08-22 13:45:22 )

# Tech Support

**SEAL**  
Analytical



# Tech Support

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## Reagents

Number	Reagent name	Batch number	User	Expiry date
1	Citrate reagent (NH4)		UTESE	
2	PPS (NH4)		UTESE	
3	Hypochorite reagent (NH4)		UTESE	
39	DI Water (Blank)		UTESE	

## Test results

Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
		S1	Standard 1	0.0017	mg N/L	0.001701				UTESE	2025-08-22 13:36:56
		S90	Standard 90	0.0046	mg N/L	0.004551				UTESE	2025-08-22 13:37:20
		S91	Standard 91	0.0061	mg N/L	0.006065				UTESE	2025-08-22 13:38:32
		S92	Standard 92	0.0089	mg N/L	0.008948				UTESE	2025-08-22 13:38:57
		S93	Standard 93	0.0115	mg N/L	0.011517				UTESE	2025-08-22 13:40:09
		S94	Standard 94	0.0137	mg N/L	0.013726				UTESE	2025-08-22 13:40:33
		S95	Standard 95	0.0254	mg N/L	0.025449				UTESE	2025-08-22 13:41:45
		S98	Standard 98	0.0844	mg N/L	0.084368				UTESE	2025-08-22 13:43:45
		S0	Standard 0	0.0023	mg N/L	0.002290				UTESE	2025-08-22 13:45:22
		CCV	CCV	0.0973	mg N/L	0.007733				UTESE	2025-08-22 13:46:34
		CCB	CCB	-0.0067	mg N/L	0.002027				UTESE	2025-08-22 13:46:58
17	U1	47	1_47_R80_5/29/2024_ch_tr Stream_cm	0.1937	mg N/L	0.013020				UTESE	2025-08-22 13:48:11
18	U2	48	1_48_R81_5/29/2024_ch_tr Stream_cm	0.4535	mg N/L	0.027281				UTESE	2025-08-22 13:48:35
19	U3	49	1_49_R82_6/05/2024_ch1_t rC_cm	0.6797	mg N/L	0.039691				UTESE	2025-08-22 13:49:47
20	U4	50	1_50_R83_6/05/2024_ch2_t rC_cm	0.5708	mg N/L	0.033714				UTESE	2025-08-22 13:50:11
21	U5	51	1_51_R84_6/05/2024_ch3_t rC_cm	0.5972	mg N/L	0.035163				UTESE	2025-08-22 13:51:23
22	U6	52	1_52_R85_6/05/2024_ch4_t rC_cm	0.6087	mg N/L	0.035793				UTESE	2025-08-22 13:51:48
23	U7	53	1_53_R86_6/05/2024_ch5_t rE_cm	0.5570	mg N/L	0.032958				UTESE	2025-08-22 13:53:00
24	U8	54	1_54_R87_6/05/2024_ch6_t rE_cm	0.4317	mg N/L	0.026080				UTESE	2025-08-22 13:53:24
25	U9	55	1_55_R88_6/05/2024_ch7_t	0.8587	mg N/L	0.049514				UTESE	2025-08-22 13:54:36

# Tech Support

**SEAL**  
Analytical



Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
27	U11	57	1_57_R90_6/12/2024_ch2_t rC_cm	0.4753	mg N/L	0.028474				UTESE	2025-08-22 13:57:50
28	U12	58	1_58_R91_6/12/2024_ch3_t rC_cm	0.6377	mg N/L	0.037386				UTESE	2025-08-22 13:58:14
29	U13	59	1_59_R92_6/12/2024_ch4_t rC_cm	0.5790	mg N/L	0.034164				UTESE	2025-08-22 13:59:26
30	U14	60	1_60_R93_6/12/2024_ch5_t rE_cm	0.7292	mg N/L	0.042407				UTESE	2025-08-22 13:59:50
31	U15	61	1_61_R94_6/12/2024_ch6_t rE_cm	0.3800	mg N/L	0.023243				UTESE	2025-08-22 14:01:02
32	U16	62	1_62_R95_6/12/2024_ch7_t rE_cm	1.2382	mg N/L	0.070339				UTESE	2025-08-22 14:01:26
33	U17	63	1_63_R96_6/12/2024_ch8_t rE_cm	0.4574	mg N/L	0.027493				UTESE	2025-08-22 14:02:38
34	U18	64	1_64_R97_6/21/2024_ch2_t rC_cm	0.6457	mg N/L	0.037825				UTESE	2025-08-22 14:03:03
35	U19	65	1_65_R98_6/21/2024_ch5_t rE_cm	0.5312	mg N/L	0.031543				UTESE	2025-08-22 14:04:15
36	U20	66	1_66_R99_6/21/2024_ch6_t rE_cm	0.6018	mg N/L	0.035416				UTESE	2025-08-22 14:04:39
	CCV	CCV		0.0939	mg N/L	0.007543				UTESE	2025-08-22 14:05:51
	CCB	CCB		-0.0065	mg N/L	0.002034				UTESE	2025-08-22 14:06:16
37	U21	67	1_67_R100_6/21/2024_ch7_t trE_cm	0.7266	mg N/L	0.042265				UTESE	2025-08-22 14:07:29
38	U22	68	1_68_R101_6/21/2024_ch8_t trE_cm	0.6400	mg N/L	0.037512				UTESE	2025-08-22 14:07:53
39	U23	69	1_69_R102_6/28/2021_ch2_t trC_cm	0.5966	mg N/L	0.035132				UTESE	2025-08-22 14:09:05
40	U24	70	1_70_R103_6/28/2024_ch4_t trC_cm	1.0085	mg N/L	0.057735				UTESE	2025-08-22 14:09:29
41	U25	71	1_71_R104_6/28/2024_ch5_t trE_cm	0.4509	mg N/L	0.027135				UTESE	2025-08-22 14:10:41
42	U26	72	1_72_R105_6/28/2024_ch6_t trE_cm	0.3579	mg N/L	0.022030				UTESE	2025-08-22 14:11:06
43	U27	73	1_73_R106_6/28/2024_ch7_t trE_cm	1.0048	mg N/L	0.057532				UTESE	2025-08-22 14:12:18
44	U28	74	1_74_R107_6/28/2024_ch8_t trE_cm	0.4039	mg N/L	0.024554				UTESE	2025-08-22 14:12:42

# Tech Support

**SEAL**  
Analytical



Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
45	U29	75	1_75_R108_7/03/2024_ch2_ trC_cm	0.4649	mg N/L	0.027905				UTESE	2025-08-22 14:13:55
46	U30	76	1_76_R109_7/03/2024_ch4_ trC_cm	0.7114	mg N/L	0.041430				UTESE	2025-08-22 14:14:20
	CCV	CCV		0.0930	mg N/L	0.007497				UTESE	2025-08-22 14:15:32
	CCB	CCB		-0.0083	mg N/L	0.001934				UTESE	2025-08-22 14:15:57
47	U31	77	1_77_R110_7/03/2024_ch5_ trE_cm	0.4080	mg N/L	0.024779				UTESE	2025-08-22 14:17:10
48	U32	78	1_78_R111_7/03/2024_ch6_ trE_cm	0.5310	mg N/L	0.031531				UTESE	2025-08-22 14:17:34
49	U33	79	1_79_R112_7/03/2024_ch7_ trE_cm	0.9468	mg N/L	0.054349				UTESE	2025-08-22 14:18:46
50	U34	80	1_80_R113_7/03/2024_ch8_ trE_cm	0.4268	mg N/L	0.025815				UTESE	2025-08-22 14:19:10
51	U35	81	1_81_R114_7/12/2024_ch2_ trC_cm	0.4138	mg N/L	0.025102				UTESE	2025-08-22 14:20:22
52	U36	82	1_82_R115_7/12/2024_ch5_ trE_cm	0.4028	mg N/L	0.024495				UTESE	2025-08-22 14:20:46
53	U37	83	1_83_R116_7/12/2024_ch6_ trE_cm	0.3077	mg N/L	0.019280				UTESE	2025-08-22 14:21:58
54	U38	84	1_84_R117_7/12/2024_ch7_ trE_cm	0.7266	mg N/L	0.042267				UTESE	2025-08-22 14:22:22
55	U39	85	1_85_R118_7/12/2024_ch8_ trE_cm	0.5214	mg N/L	0.031002				UTESE	2025-08-22 14:23:34
56	U40	86	1_86_R119_7/17/2024_ch5_ trE_cm	0.3617	mg N/L	0.022241				UTESE	2025-08-22 14:23:58
	CCV	CCV		0.1022	mg N/L	0.008000				UTESE	2025-08-22 14:25:10
	CCB	CCB		-0.0074	mg N/L	0.001987				UTESE	2025-08-22 14:25:34
57	U41	87	1_87_R120_7/17/2024_ch6_ trE_cm	0.5186	mg N/L	0.030850				UTESE	2025-08-22 14:26:47
58	U42	88	1_88_R121_7/17/2024_ch7_ trE_cm	0.6231	mg N/L	0.036585				UTESE	2025-08-22 14:27:11
59	U43	89	1_89_R122_7/17/2024_ch8_ trE_cm	0.4877	mg N/L	0.029156				UTESE	2025-08-22 14:28:23

# Tech Support

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Analytical



Cup	Type	ID	Details	Result	Units	Raw data	QC Pro	Auto dil.	Man dil.	User	Time & Date
60	U44	90	1_90_R123_7/24/2024_ch5_ trE_cm	0.3654	mg N/L	0.022446				UTESE	2025-08-22 14:28:47
61	U45	91	1_91_R124_7/24/2024_ch6_ trE_cm	0.4977	mg N/L	0.029701				UTESE	2025-08-22 14:29:59
62	U46	92	1_92_R125_7/24/2024_ch7_ trE_cm	0.5800	mg N/L	0.034221				UTESE	2025-08-22 14:30:23
63	U47	93	1_93_R126_7/24/2024_ch8_ trE_cm	0.4585	mg N/L	0.027553				UTESE	2025-08-22 14:31:35
64	U48	94	1_94_R127_7/31/2024_ch5_ trE_cm	0.3634	mg N/L	0.022334				UTESE	2025-08-22 14:31:59
65	U49	95	1_95_R128_7/31/2024_ch6_ trE_cm	0.3805	mg N/L	0.023270				UTESE	2025-08-22 14:33:11
66	U50	96	1_96_R129_7/31/2024_ch7_ trE_cm	0.4517	mg N/L	0.027179				UTESE	2025-08-22 14:33:35
	CCV	CCV		0.0979	mg N/L	0.007765				UTESE	2025-08-22 14:34:47
	CCB	CCB		-0.0054	mg N/L	0.002096				UTESE	2025-08-22 14:35:13
67	U51	97	1_97_R130_8/05/2024_ch5_ trE_cm	0.4959	mg N/L	0.029605				UTESE	2025-08-22 14:36:26
68	U52	98	1_98_R131_8/05/2024_ch6_ trE_cm	0.4701	mg N/L	0.028188				UTESE	2025-08-22 14:36:50
69	U53	99	1_99_R132_8/05/2024_ch7_ trE_cm	0.4002	mg N/L	0.024354				UTESE	2025-08-22 14:38:02
70	U54	100	1_100_R133_8/05/2024_ch8_ trE_cm	0.4652	mg N/L	0.027922				UTESE	2025-08-22 14:38:26
	CCV	CCV		0.0580	mg N/L	0.005577				UTESE	2025-08-22 14:39:38
	CCB	CCB		-0.0091	mg N/L	0.001895				UTESE	2025-08-22 14:40:04

# Tech Support

**SEAL**  
Analytical



## Test parameters Ammonia (PPS)

Test number	9	Short test name	NH3_PPS
Long test name	Ammonia (PPS)	Decimal places	4
Units	mg N/L		
Test type	End Point		

## Main parameters

Sample volume	300	Water volume	0	Number of mixes	2
Cuvette primes	2	Cuvette washes	2	Baseline on wash	Yes
Cadmium volume	0	Reduction time	10	Diluent location	Reagent 24

## Math parameters

Reaction time	1200	Wavelength	660nm	Polynomial order	1
Repeat delta check	0.250	Manual dilution factor	0.000		
Auto dilution factor 1	1.000	Auto dilution factor 2	0.000	Auto dilution factor 3	0.000
Linearity Low	0.0017	Linearity High	0.0844	Latest Slope	18.2227
Alert Low	0.000	Alert High	0.000	Latest Intercept	-0.0436

## Reagent parameters

Number of reagents 3

Reagent	Name	Volume	Delay	Replaced in blank
1	Citrate reagent (NH4)	100	0	No
2	PPS (NH4)	100	300	No
3	Hypochorite reagent (NH450)		350	No

## Test parameters Ammonia (PPS)

Test number	9	Short test name	NH3_PPS
Long test name	Ammonia (PPS)	Decimal places	4
Units	mg N/L		
Test type	End Point		

## Main parameters

Sample volume	300	Water volume	0	Number of mixes	2
Cuvette primes	2	Cuvette washes	2	Baseline on wash	Yes
Cadmium volume	0	Reduction time	10	Diluent location	Reagent 24

## Math parameters

Reaction time	1200	Wavelength	660nm	Polynomial order	1
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# Tech Support



## Standards

Auto Std. Number	10	Auto Std. Concentration	2.0000	Exclude the Blank	No
Auto Std. Position	Cup 1	Standard 1 (Blank) Position	Reagent 24	Correlation limit	0.9980

Standard	Value	Standard	Value	Auto Standard	Percentage	Value
1	0.0000			S90	2.0000	0.0400
				S91	4.0000	0.0800
				S92	6.0000	0.1200
				S93	8.0000	0.1600
				S94	10.0000	0.2000
				S95	20.0000	0.4000
				S96	30.0000	0.6000
				S97	50.0000	1.0000
				S98	75.0000	1.5000
				S99	100.0000	2.0000

## QC PRO

Control	Low value	High value	Location	Frequency	Start before
CCV	0.0000	0.2000	Reagent 10	10	1
CCB	-0.0400	0.0400	Reagent 24	10	1

Control	%% (+ \ -)	Stock Conc.	Spike added	Location
DUP	0.0000			
SPKA	10.0000	10.0000	0.5000	Cup 101
SPKM	0.0000		0.0000	
SPKD	0.0000			

## Advanced parameters

Set diagnostic slope & intercept	No	Extra debubble action	Yes
Eliminate air from transfer	Yes	Eliminate air from cuvette wash	No
Extra aspiration steps	0	Smart dilution	No
Extra wash	Yes	Separate waste	Yes
Slow aspiration	No	Diluent preparation order	Reagent first

## Standards

Auto Std. Number	10	Auto Std. Concentration	2.0000	Exclude the Blank	No
Auto Std. Position	Cup 1	Standard 1 (Blank) Position	Reagent 24	Correlation limit	0.9980

Standard	Value	Standard	Value	Auto Standard	Percentage	Value
1	0.0000			S90	2.0000	0.0400

# Tech Support

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Analytical



## Diagnostics

Cup	Type	Result	Absorbance	T	W
	S1	0.0017	0.001701	0.002354	0.000653
	S90	0.0046	0.004551	0.005274	0.000724
	S91	0.0061	0.006065	0.007201	0.001136
	S92	0.0089	0.008948	0.009673	0.000725
	S93	0.0115	0.011517	0.012152	0.000635
	S94	0.0137	0.013726	0.014389	0.000663
	S95	0.0254	0.025449	0.026160	0.000711
	S98	0.0844	0.084368	0.085082	0.000714
	S0	0.0023	0.002290	0.003039	0.000749
	CCV	0.0973	0.007733	0.008550	0.000818
	CCB	-0.0067	0.002027	0.002807	0.000781
17	U1	0.1937	0.013020	0.013779	0.000759
18	U2	0.4535	0.027281	0.027985	0.000704
19	U3	0.6797	0.039691	0.040434	0.000743
20	U4	0.5708	0.033714	0.034530	0.000816
21	U5	0.5972	0.035163	0.035864	0.000701
22	U6	0.6087	0.035793	0.036618	0.000826
23	U7	0.5570	0.032958	0.033803	0.000846
24	U8	0.4317	0.026080	0.026985	0.000905
25	U9	0.8587	0.049514	0.050336	0.000822
26	U10	0.6932	0.040433	0.041301	0.000868
	CCV	0.1131	0.008597	0.009471	0.000873
	CCB	-0.0141	0.001620	0.002498	0.000877
27	U11	0.4753	0.028474	0.029458	0.000984
28	U12	0.6377	0.037386	0.038153	0.000767
29	U13	0.5790	0.034164	0.035086	0.000922
30	U14	0.7292	0.042407	0.043225	0.000818
31	U15	0.3800	0.023243	0.024206	0.000963
32	U16	1.2382	0.070339	0.071208	0.000869

## Diagnostics

Cup	Type	Result	Absorbance	T	W
	S1	0.0017	0.001701	0.002354	0.000653
	S90	0.0046	0.004551	0.005274	0.000724
	S91	0.0061	0.006065	0.007201	0.001136
	S92	0.0089	0.008948	0.009673	0.000725

# Tech Support

**SEAL**  
Analytical



Cup	Type	Result	Absorbance	T	W
33	U17	0.4574	0.027493	0.028459	0.000966
34	U18	0.6457	0.037825	0.038744	0.000919
35	U19	0.5312	0.031543	0.032458	0.000915
36	U20	0.6018	0.035416	0.036338	0.000922
	CCV	0.0939	0.007543	0.008551	0.001008
	CCB	-0.0065	0.002034	0.003026	0.000992
37	U21	0.7266	0.042265	0.043218	0.000953
38	U22	0.6400	0.037512	0.038555	0.001043
39	U23	0.5966	0.035132	0.036121	0.000989
40	U24	1.0085	0.057735	0.058813	0.001078
41	U25	0.4509	0.027135	0.028161	0.001027
42	U26	0.3579	0.022030	0.023139	0.001109
43	U27	1.0048	0.057532	0.058509	0.000978
44	U28	0.4039	0.024554	0.025612	0.001057
45	U29	0.4649	0.027905	0.028991	0.001085
46	U30	0.7114	0.041430	0.042484	0.001054
	CCV	0.0930	0.007497	0.008610	0.001113
	CCB	-0.0083	0.001934	0.002948	0.001014
47	U31	0.4080	0.024779	0.025916	0.001137

# Tech Support

**SEAL**  
Analytical



Cup	Type	Result	Absorbance	T	W
48	U32	0.5310	0.031531	0.032523	0.000992
49	U33	0.9468	0.054349	0.055458	0.001110
50	U34	0.4268	0.025815	0.026875	0.001060
51	U35	0.4138	0.025102	0.026221	0.001119
52	U36	0.4028	0.024495	0.025622	0.001126
53	U37	0.3077	0.019280	0.020482	0.001203
54	U38	0.7266	0.042267	0.043437	0.001169
55	U39	0.5214	0.031002	0.032173	0.001171
56	U40	0.3617	0.022241	0.023441	0.001200
	CCV	0.1022	0.008000	0.009175	0.001175
	CCB	-0.0074	0.001987	0.003245	0.001258
57	U41	0.5186	0.030850	0.032071	0.001221
58	U42	0.6231	0.036585	0.037760	0.001175
59	U43	0.4877	0.029156	0.030433	0.001278
60	U44	0.3654	0.022446	0.023709	0.001263
61	U45	0.4977	0.029701	0.031002	0.001301
62	U46	0.5800	0.034221	0.035461	0.001240
63	U47	0.4585	0.027553	0.028832	0.001279
64	U48	0.3634	0.022334	0.023548	0.001214
65	U49	0.3805	0.023270	0.024577	0.001307

# Tech Support

**SEAL**  
Analytical



Cup	Type	Result	Absorbance	T	W
66	U50	0.4517	0.027179	0.028424	0.001245
	CCV	0.0979	0.007765	0.009104	0.001340
	CCB	-0.0054	0.002096	0.003368	0.001272
67	U51	0.4959	0.029605	0.030861	0.001257
68	U52	0.4701	0.028188	0.029426	0.001239
69	U53	0.4002	0.024354	0.025710	0.001356
70	U54	0.4652	0.027922	0.029250	0.001328
	CCV	0.0580	0.005577	0.006925	0.001348
	CCB	-0.0091	0.001895	0.003226	0.001332