Where Rpt Checkbox = ALL

Ammonia. Undistilled

		IResult	FResult	Qualifiers	Units	MRL	TrueValue	Prep I/F	Recovery	RPD
Air	**1211031-BLK1 (Blank)**									
	Ammonia as N	-0.06	-12.200U		ug/Filter	10		1.00Filter/200.		
Air	**1211031-BLK2 (Blank)**									
	Ammonia as N	-0.07	-13.200U		ug/Filter	10		1.00Filter/200.		
Air	**1211031-BS1 (LCS)**									
	Ammonia as N	0.95	0.94900		ug/Filter	0.050	1.0000	10.00Filter/10.	94.9	
Air	**1211031-BS2 (LCS)**									
	Ammonia as N	0.95	0.95100		ug/Filter	0.050	1.0000	10.00Filter/10.	95.1	
Air	**1211031-CCV1 (Calibration Check)**									
	Ammonia as N	2.53	2.5340		ug/Filter		2.5000	100.00Filter/1C	101	
Air	**1211031-CCV2 (Calibration Check)**									
	Ammonia as N	2.52	2.5230		ug/Filter		2.5000	100.00Filter/1C	101	
Air	**1211031-CCV3 (Calibration Check)**									
	Ammonia as N	2.52	2.5210		ug/Filter		2.5000	100.00Filter/1C	101	
Air	**1211031-CCV4 (Calibration Check)**									
	Ammonia as N	2.52	2.5170		ug/Filter		2.5000	100.00Filter/1C	101	
Air	**1211031-MS1 (Matrix Spike)**									
	Ammonia as N	1.01	1.0070		ug/Filter		1.0000	1.00Filter/200.	106	
Air	**1211031-MS2 (Matrix Spike)**									
	Ammonia as N	0.98	0.98100		ug/Filter		1.0000	1.00Filter/200.	105	
Air	**1211031-MS3 (Matrix Spike)**									
	Ammonia as N	1.00	0.99800		ug/Filter		1.0000	1.00Filter/200.	104	
Air	**1211031-MSD1 (Matrix Spike Dup)**									
	Ammonia as N	1.01	1.0050		ug/Filter		1.0000	1.00Filter/200.	105	
Air	**1211031-MSD2 (Matrix Spike Dup)**									
	Ammonia as N	0.98	0.97700		ug/Filter		1.0000	1.00Filter/200.	105	
Air	**1211031-MSD3 (Matrix Spike Dup)**									

Where Rpt Checkbox = ALL

Ammonia. Undistilled

	IResult	FResult	Qualifiers	Units	MRL	TrueValue	Prep I/F	Recovery	RPD
Air E124405-25 (YBB256)									
Ammonia as N	-0.04	-8.2U	J,CR	ug/Filter	10		1.00Filter/200.		
Air E124405-26 (YBBTSP4)									
Ammonia as N	-0.04	-8.2U	J,CR	ug/Filter	10		1.00Filter/200.		
Air E124405-27 (YBBTSP5)									
Ammonia as N	-0.05	-9.0U	J,CR	ug/Filter	10		1.00Filter/200.		
Air E124405-28 (YBBTSP6)									
Ammonia as N	-0.05	-9.0U	J,CR	ug/Filter	10		1.00Filter/200.		

PREPARATION BENCH SHEET

1211031

US-EPA, Region 4, SESD

Matrix: Air

Prepared using: ICS Nuts - M M/T Bottle-dry ice blk

Printed: 11/9/2012 3:32:13PM

Lab Number	Prepared	Due	Container	Initial (Filter)	Final (mL)	Spike ID	Source ID	ul Spike
1211031-BLK1	11/08/12 10:52			1	200			
1211031-BLK2	11/08/12 10:52			1	200			
1211031-BS1	11/08/12 10:52			10	10	2110702		200
1211031-BS2	11/08/12 10:52			10	10	2110702		200
1211031-CCV1	11/08/12 10:52			100	100	2110701		2500
1211031-CCV2	11/08/12 10:52			100	100	2110701		2500
1211031-CCV3	11/08/12 10:52			100	100	2110701		2500
1211031-CCV4	11/08/12 10:52			100	100	2110701		2500
1211031-MS1	11/08/12 10:52			1	200	2110903	E124405-08	1000
1211031-MS2	11/08/12 10:52			1	200	2110903	E124405-16	1000
1211031-MS3	11/08/12 10:52			1	200	2110903	E124405-24	1000
1211031-MSD1	11/08/12 10:52			1	200	2110903	E124405-08	1000
1211031-MSD2	11/08/12 10:52			1	200	2110903	E124405-16	1000
1211031-MSD3	11/08/12 10:52			1	200	2110903	E124405-24	1000
1211031-PS1	11/08/12 10:52			100	100	2110701		50
E124405-01 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		
E124405-02 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		
E124405-03 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		
E124405-04 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		
E124405-05 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		

D. Adams 11/20/12

Verified By Date

PREPARATION BENCH SHEET

1211031

US-EPA, Region 4, SESD

Matrix: Air

Prepared using: ICS Nuts - M M/T Bottle-dry ice blk

Printed: 11/9/2012 3:32:13PM

Lab Number	Prepared	Due	Container	Initial (Filter)	Final (mL)	Spike ID	Source ID	ul Spike
Ammonia, Undistilled								
E124405-20 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		
E124405-21 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		
E124405-22 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		
E124405-23 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		
E124405-24 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		
E124405-25 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		
E124405-26 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		
E124405-27 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		
E124405-28 *Ammonia, Undistilled*	11/08/12 10:52	12/06/12 00:00	A	1	200	Air Quality Management		

Standard(s):

2110701	NH3/TKN Interm REF STD IS-110712-100ppm	2500 uL
		50 uL
2110702	NH3/TKN Interm LCS / SPIKE IS-110712-50ppm	200 uL
2110903	1.0ppm static spike for NH3	1000 uL

Standard ID#	Description	Manufacture Lot#

Verified By _____ Date _____

AA3-NUTS 2

Post-run report

Name of Run	: 121109A	Name of Analysis	: Ammonia.ANL
Date of Report	: 11/9/2012	System	: 1 / AA3 HR
Run Start	: 11/9/2012 1:16:49 PM	Run Stop	: 2:28:34 PM
Operator	: MH		
Comment	: 13-0003 United Metals reshots, 13-0013 Yellow Bluf		

Channel :	2
Method :	EPA Method
Unit :	mg/L
Calibr. Fit :	Linear
Corr. Coeff.(r) :	1.0000
Base :	-7596
Gain :	13
Sensitivity :	0.6211
Sample Limit 1 :	
Sample Limit 2 :	

Pk	Cup		Sample ID	Value
0	0	B	Baseline	-0.005
1	1	P	Primer	4.971
2	1	D	Drift	4.981
3	1	C	5.0	4.986
4	2	C	2.5	2.533
5	3	C	1.0	0.990
6	4	C	0.5	0.493
7	5	C	0.25	0.244
8	6	C	0.10	0.098
9	7	C	0.05	0.053
10	8	C	0.00	0.003
11	0	N	Null	0.001N
12	1	H1	High	4.987
13	7	L1	Low	0.058
14	7	L1	Low	0.058
15	0	N	Null	0.006N
16	13	S	ICV=1.0ppm	0.950
17	0	N	Null	0.005N
18	25	S	1211031-BLK1	-0.061
19	26	S	1211031-BLK2	-0.066
20	7	S	1211031-PS1	0.053
21	13	S	1211031-BS1	0.949
22	14	S	1211031-BS2	0.951
23	0	N	Null	0.006N
24	27	S	E124405-01	-0.060
25	28	S	E124405-02	-0.063
26	29	S	E124405-03	-0.064
27	30	S	E124405-04	-0.067
28	31	S	E124405-05	-0.069
29	32	S	E124405-06	-0.015
30	33	S	E124405-07	-0.047
31	34	S	E124405-08	-0.048
32	55	S	1211031-MS1	1.007
33	56	S	1211031-MSD1	1.005
34	0	N	Null	0.001N
35	2	S	1211031-CCV1	2.534
36	0	N	Null	0.005N
37	35	S	E124405-09	-0.051
38	36	S	E124405-10	-0.045
39	37	S	E124405-11	-0.051
40	38	S	E124405-12	-0.047
41	39	S	E124405-13	-0.054
42	40	S	E124405-14	-0.058
43	41	S	E124405-15	-0.066

44	42	S	E124405-16	-0.073
45	57	S	1211031-MS2	0.981
46	58	S	1211031-MSD2	0.977
47	0	N	Null	-0.003N
48	2	S	1211031-CCV2	2.523
49	0	N	Null	0.000N
50	43	S	E124405-17	-0.043
51	44	S	E124405-18	-0.052
52	45	S	E124405-19	0.497
53	46	S	E124405-20	-0.042
54	47	S	E124405-21	-0.044
55	48	S	E124405-22	-0.041
56	49	S	E124405-23	-0.047
57	50	S	E124405-24	-0.044
58	59	S	1211031-MS3	0.998
59	60	S	1211031-MSD3	0.989
60	0	N	Null	-0.004N
61	2	S	1211031-CCV3	2.521
62	0	N	Null	0.001N
63	51	S	E124405-25	-0.041
64	52	S	E124405-26	-0.041
65	53	S	E124405-27	-0.045
66	54	S	E124405-28	-0.045
67	15	S	E124302-03RE1@20	2.354
68	16	S	E124302-04RE1	-0.043
69	0	N	Null	-0.003N
70	2	S	1211031-CCV4	2.517
71	0	N	Null	0.000N
72	1	D	Drift	4.981
73	0	B	Final Base	-0.005

mad 11/9/12

mad 11/9/12

CORRECTIONS

Channel	:	2
Baseline	:	Yes
Drift	:	Yes
Carryover	:	Yes
%:		0.3

* ... Sample offscale
\+ ... Result higher than sample limit
\- ... Result lower than sample limit
P ... Standard passed
F ... Standard failed
N ... Value not calculated or not used
R ... Resample after offscale
M ... Peak marker moved manually
D ... Diluted sample
H ... Dual calibration used

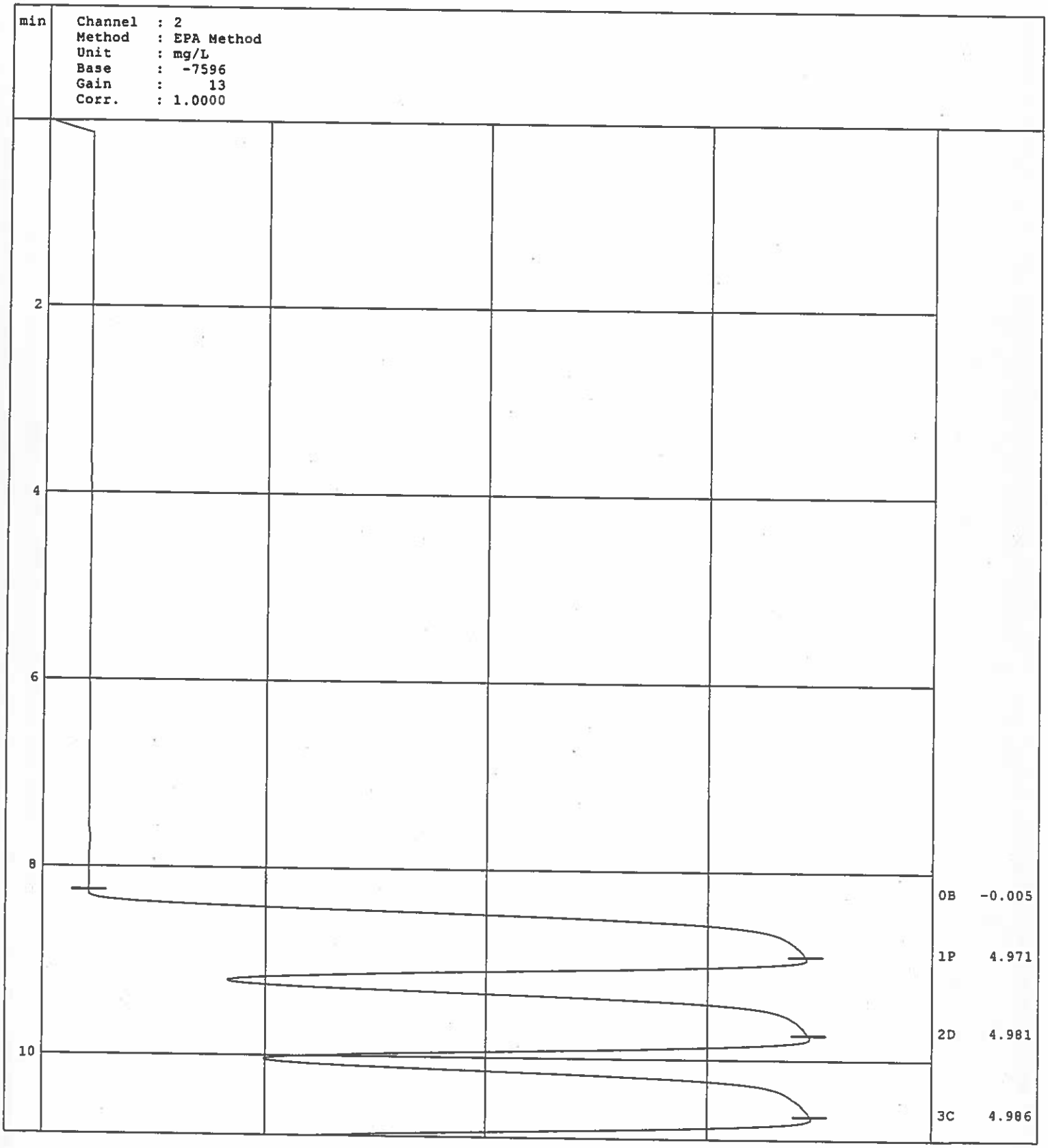
** <END OF REPORT> **

AA3-NUTS 2

Post-run report

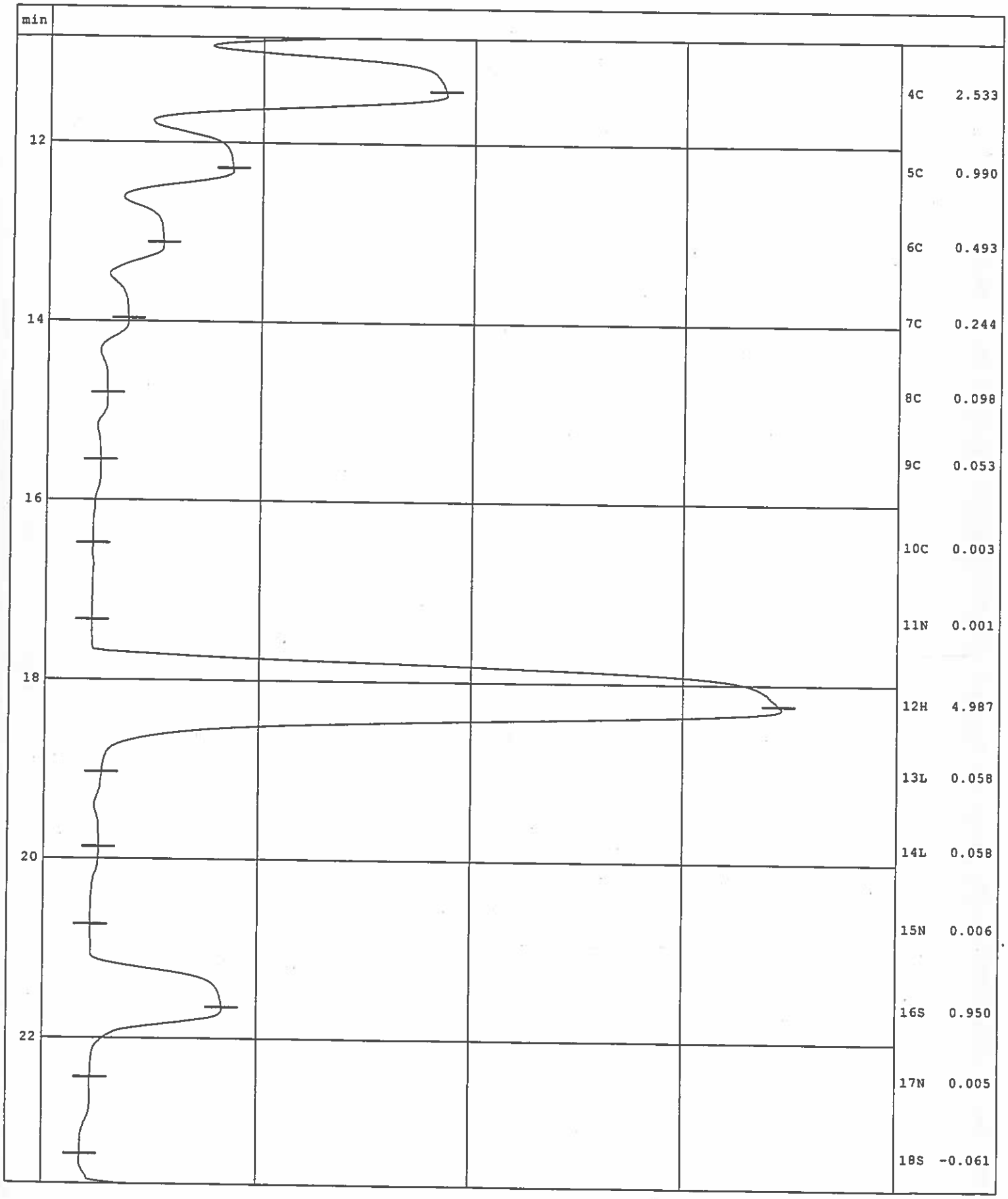
Name of run :121109A.RUN
Comment :13-0003 United Metals reshots, 13-0013 Yellow Bluf

Name of analysis :Ammonia.ANL



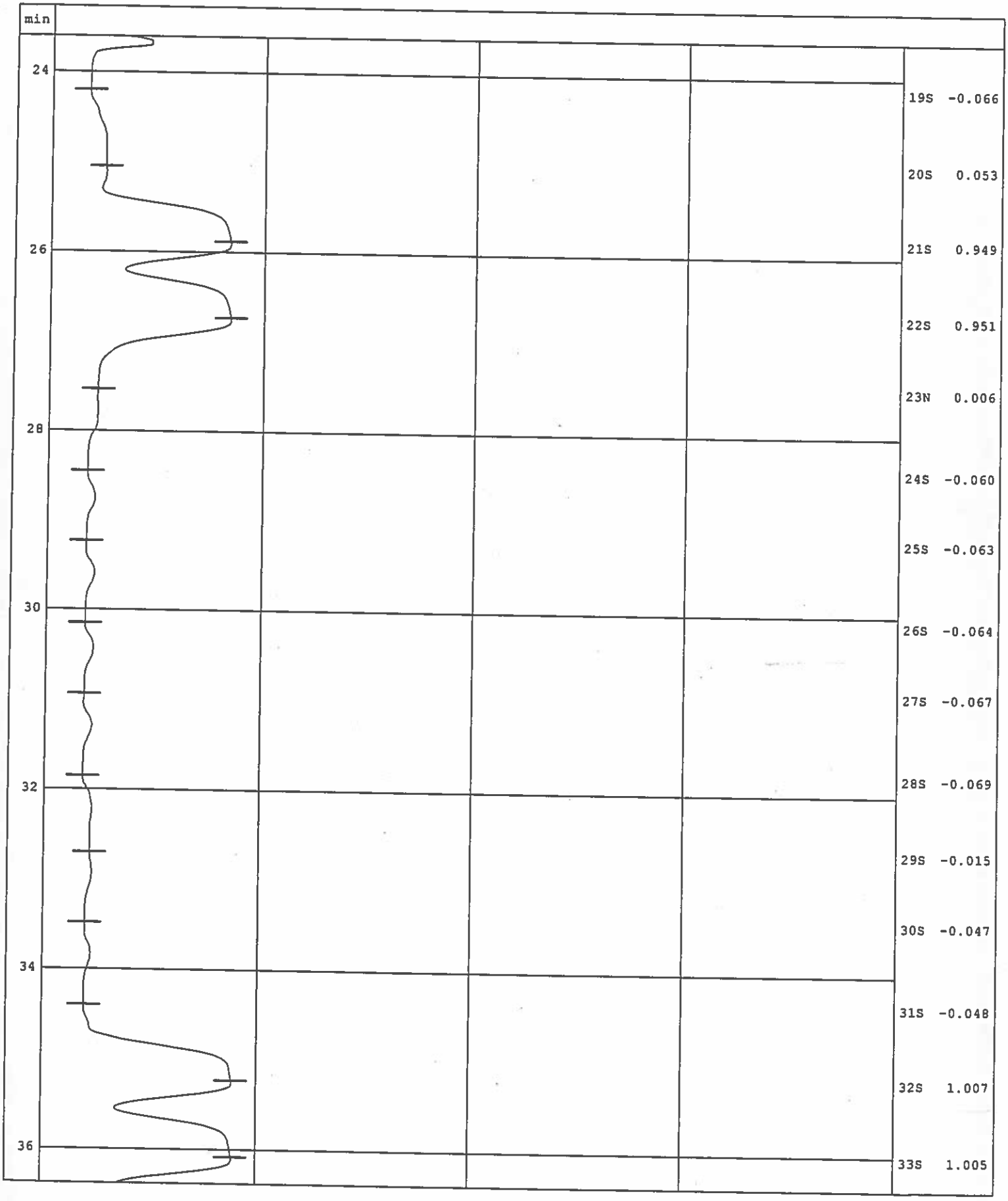
Name of run :121109A.RUN
Comment :13-0003 United Metals reshots, 13-0013 Yellow Bluf

Name of analysis :Ammonia.ANL



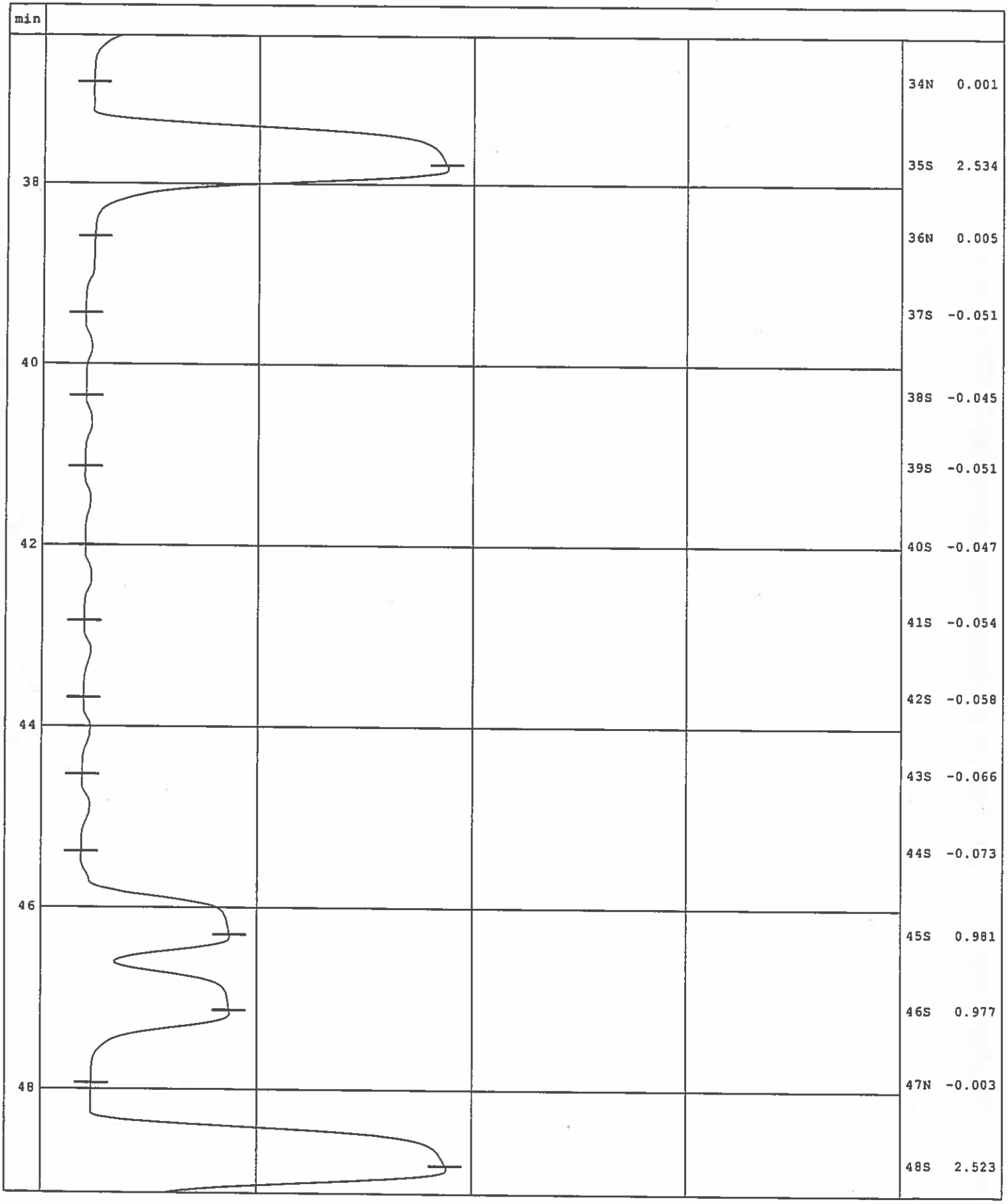
Name of run :121109A.RUN
Comment :13-0003 United Metals reshots, 13-0013 Yellow Bluf

Name of analysis :Ammonia.ANL



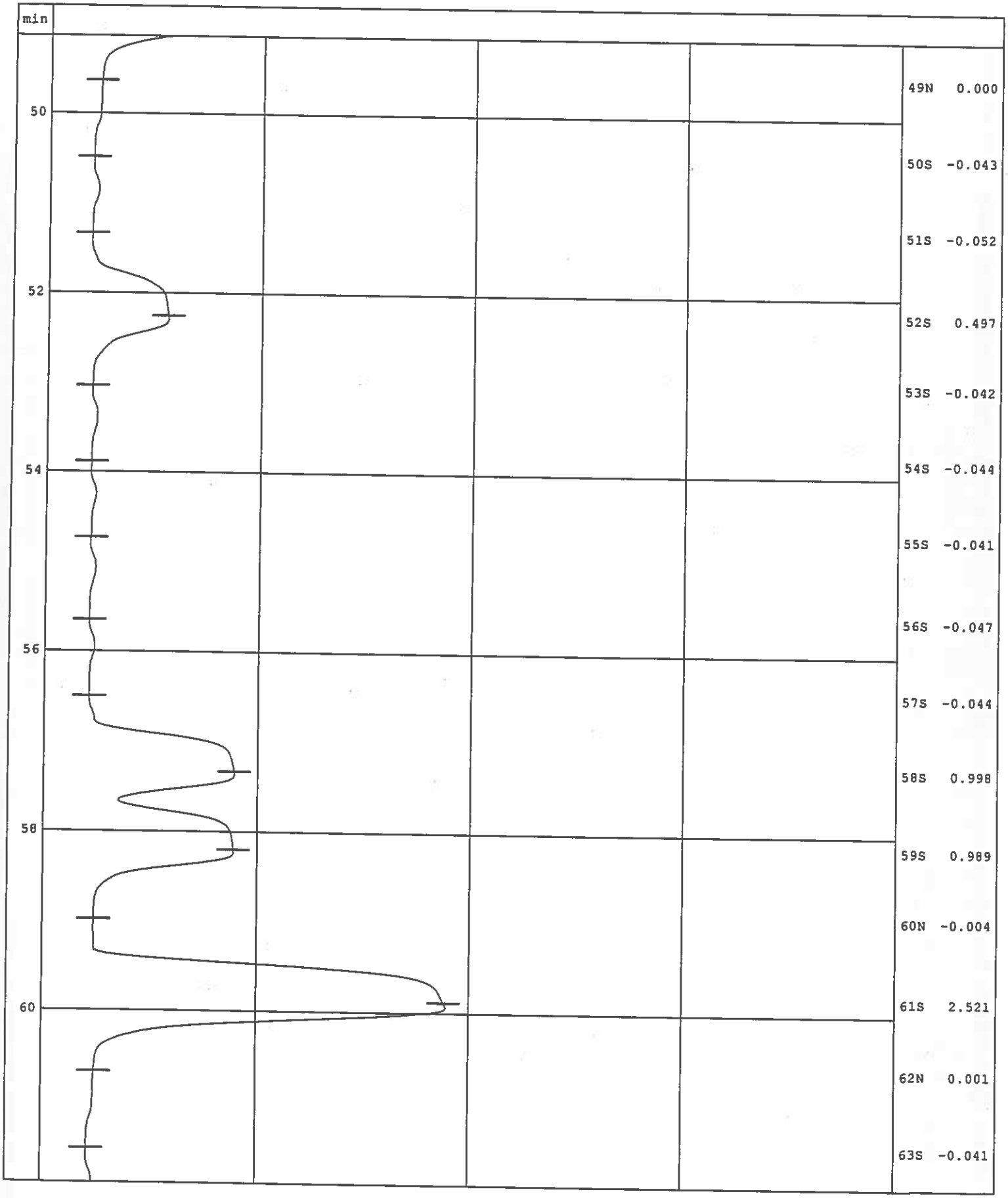
Name of run :121109A.RUN
Comment :13-0003 United Metals reshots, 13-0013 Yellow Bluf

Name of analysis :Ammonia.ANL



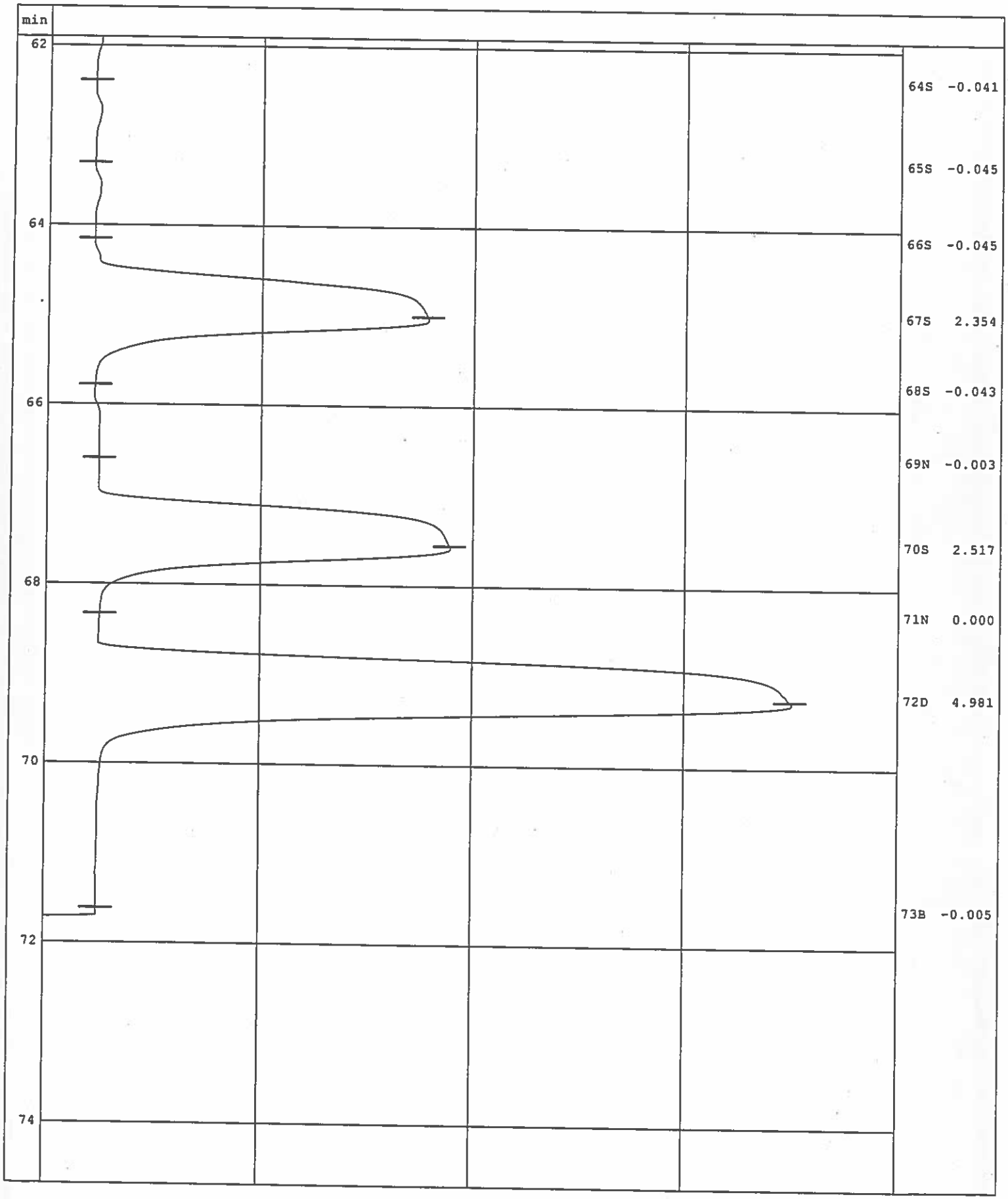
Name of run :121109A.RUN
Comment :13-0003 United Metals reshots, 13-0013 Yellow Bluf

Name of analysis :Ammonia.ANL



Name of run :121109A.RUN
Comment :13-0003 United Metals reshots, 13-0013 Yellow Bluf

Name of analysis :Ammonia.ANL

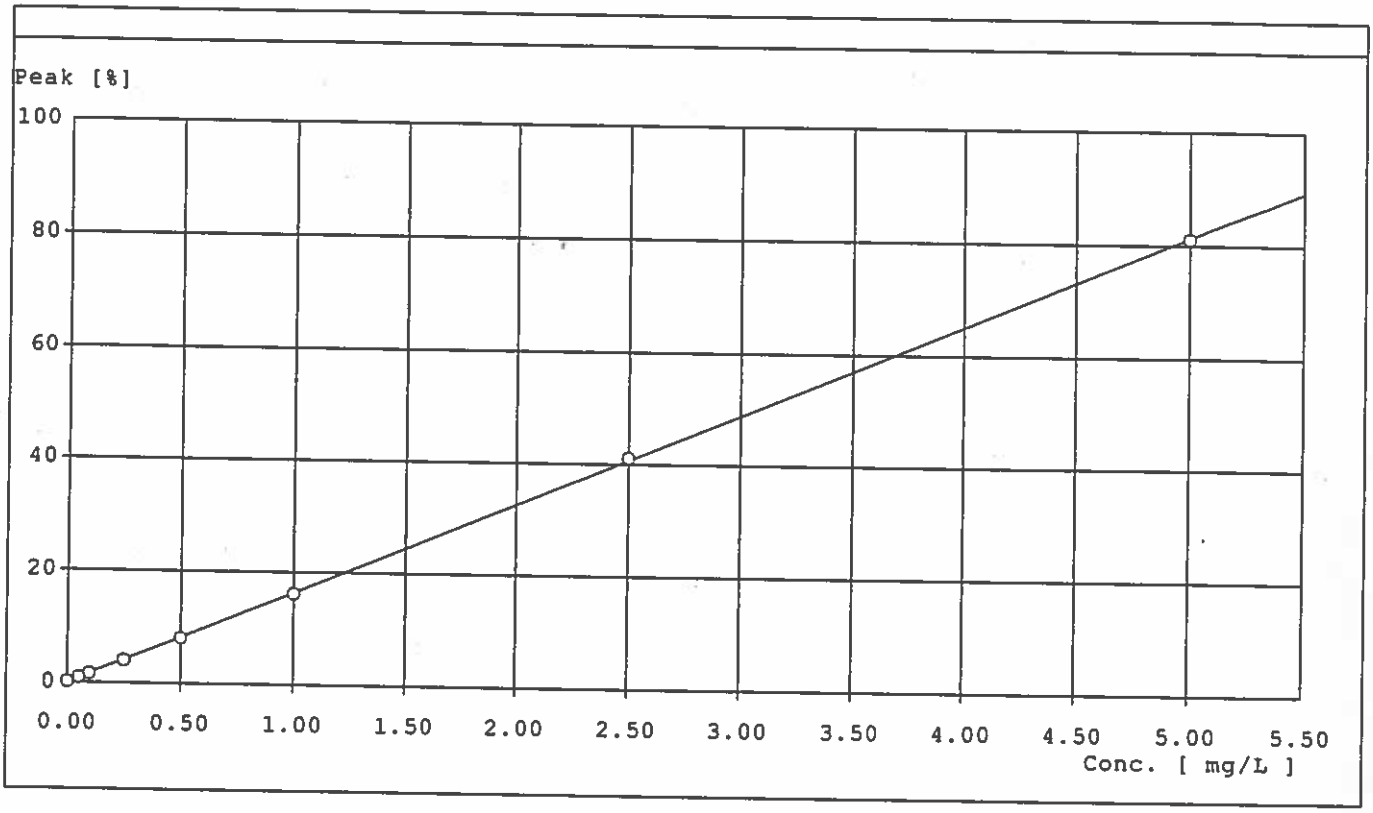


AA3-NUTS 2

Post-run report

Name of run :121109A.RUN
Comment :13-0003 United Metals reshots, 13-0013 Yellow Bluf

Name of analysis :Ammonia.ANL
Date of report :11/9/2012



Channel :2
Method :EPA Method
Curve fit :Linear
Corr.coeff.(r) :1.0000

Date of run :11/9/2012

Equation :y = bx + a

y = conc. in
x = peak height in digital units
a = -3.2557E-001
b = 9.4042E-005

Corrections
Baseline Corr. done
Drift Correction done
Carryover Corr. done 0.31 %

Calibrant Values

Type	Calculated	Target	Diff.[mg/L]	Diff. (%)
1C	4.986	5.000	-0.014	-0.27
2C	2.533	2.500	0.033	1.31
3C	0.990	1.000	-0.010	-0.97
4C	0.493	0.500	-0.007	-1.33
5C	0.244	0.250	-0.006	-2.42
6C	0.098	0.100	-0.002	-2.20
7C	0.053	0.050	0.003	5.89
8C	0.003	0.000	0.0	

AA3-NUTS 2

Post-run report

Name of Run	:121109A	Name of Analysis	:Ammonia
Date	:11/9/2012	System No.	:1
Sample/Hour	:70	Sample Time	:39
Sample/Wash	:3.0	Wash Time	:12.0
Statistics	:No	CLP	:No

Channel / Method

Channel	2
Method	EPA Method
Unit	mg/L
Inverse Chem.	No
Sample limit	No
Sample limit low	0.000
Sample limit high	0.000
Baseline Corr.	Yes
Drift Correction	Yes
Carryover Corr.	Yes
Calibration Fit	L
Base Calibration	No
Base Concentration	0.000
Carryover Factor	0.000
QCLink	
QCCopy	No
Dual-cal-run : Second calibration from	
Calibrant 1	5.000
Calibrant 2	2.500
Calibrant 3	1.000
Calibrant 4	0.500
Calibrant 5	0.250
Calibrant 6	0.100
Calibrant 7	0.050
Calibrant 8	0.000
Calibrant 9	0.000
Calibrant 10	0.000
Smoothing	8
Peak Window Start	50
Peak Window End	105
Spike Recovery	0.000
Baseline Max Heigh [%]	26
Baseline Noise	0.6
Primer Max Heigh [%]	50
Primer Rise	0.5
Primer Rise After	6
Primer After Last Base	Yes

QC Limits

Channel	2

SEAL Analytical AACE 6.07

Tray Protocol

QC 1	Cond. 1	Below/Equal
	Limit 1	0.700
	Action 1	Continue
	Cond. 2	Above/Equal
	Limit 2	1.300
	Action 2	Continue
	Autocopy	No
	Filename	
QC 2	Unused	
QC 3	Unused	
QC 4	Unused	
QC 5	Unused	
QC 6	Unused	
QC 7	Unused	
QC 8	Unused	
QC 9	Unused	
QC10	Unused	

Tray / Cups

Number of Cups : 48

Number of Samples : 46

No	Cup	Type	Sample ID
1	1	P	Primer
2	1	D	Drift
3	1	C	5.0
4	2	C	2.5
5	3	C	1.0
6	4	C	0.5
7	5	C	0.25
8	6	C	0.10
9	7	C	0.05
10	8	C	0.00
11	0	N	Null
12	1	H1	High
13	7	L1	Low
14	7	L1	Low
15	0	N	Null
16	13	S	ICV=1.0ppm
17	0	N	Null
18	25	S	1211031-BLK1
19	26	S	1211031-BLK2
20	7	S	1211031-PS1
21	13	S	1211031-BS1
22	14	S	1211031-BS2
23	0	N	Null
24	27	S	E124405-01
25	28	S	E124405-02
26	29	S	E124405-03
27	30	S	E124405-04
28	31	S	E124405-05
29	32	S	E124405-06
30	33	S	E124405-07
31	34	S	E124405-08
32	55	S	1211031-MS1
33	56	S	1211031-MSD1

34	0	N	Null
35	2	S	1211031-CCV1
36	0	N	Null
37	35	S	E124405-09
38	36	S	E124405-10
39	37	S	E124405-11
40	38	S	E124405-12
41	39	S	E124405-13
42	40	S	E124405-14
43	41	S	E124405-15
44	42	S	E124405-16
45	57	S	1211031-MS2
46	58	S	1211031-MSD1
47	0	N	Null
48	2	S	1211031-CCV2
49	0	N	Null
50	43	S	E124405-17
51	44	S	E124405-18
52	45	S	E124405-19
53	46	S	E124405-20
54	47	S	E124405-21
55	48	S	E124405-22
56	49	S	E124405-23
57	50	S	E124405-24
58	59	S	1211031-MS3
59	60	S	1211031-MSD3
60	0	N	Null
61	2	S	1211031-CCV3
62	0	N	Null
63	51	S	E124405-25
64	52	S	E124405-26
65	53	S	E124405-27
66	54	S	E124405-28
67	15	S	E124302-03RE1
68	16	S	E124302-04RE1
69	0	N	Null
70	2	S	1211031-CCV4
71	0	N	Null
72	1	D	Drift
73	0	E	End

AA3-NUTS 2

Post-run report

Name of Run	: 121108C	Name of Analysis	: Ammonia.ANL
Date of Report	: 11/9/2012	System	: 1 / AA3 HR
Run Start	: 11/9/2012 11:15:44 AM	Run Stop	: 12:06:11 PM
Operator	: MH		
Comment	: 13-0013 Yellow Bluff Dust Study SCAN		

Channel	:	2
Method	:	EPA Method
Unit	:	mg/L
Calibr. Fit	:	Linear
Corr. Coeff.(r)	:	1.0000
Base	:	-6907
Gain	:	13
Sensitivity	:	0.6150
Sample Limit 1	:	
Sample Limit 2	:	

Pk	Cup		Sample ID	Value
0	0	B	Baseline	-0.003
1	1	P	Primer	4.997
2	1	D	Drift	4.992
3	1	C	5.0	5.004
4	2	C	2.5	2.502
5	3	C	1.0	0.979
6	4	C	0.5	0.492
7	5	C	0.25	0.248
8	6	C	0.10	0.104
9	7	C	0.05	0.058
10	8	C	0.00	0.013
11	0	N	Null	0.011N
12	1	H1	High	5.008
13	7	L1	Low	0.066
14	7	L1	Low	0.066
15	0	N	Null	0.015N
16	25	S	BLK1	-0.058
17	26	S	BLK2	-0.061
18	27	S	E124405-01	-0.059
19	28	S	E124405-02	-0.061
20	29	S	E124405-03	-0.063
21	30	S	E124405-04	-0.065
22	31	S	E124405-05	-0.068
23	32	S	E124405-06	-0.014
24	33	S	E124405-07	-0.046
25	34	S	E124405-08	-0.048
26	35	S	E124405-09	-0.055
27	36	S	E124405-10	-0.047
28	37	S	E124405-11	-0.052
29	38	S	E124405-12	-0.050
30	39	S	E124405-13	-0.057
31	40	S	E124405-14	-0.059
32	41	S	E124405-15	-0.066
33	42	S	E124405-16	-0.073
34	43	S	E124405-17	-0.047
35	44	S	E124405-18	-0.054
36	45	S	E124405-19	0.512
37	46	S	E124405-20	-0.041
38	47	S	E124405-21	-0.043
39	48	S	E124405-22	-0.042
40	49	S	E124405-23	-0.047
41	50	S	E124405-24	-0.043
42	51	S	E124405-25	-0.045
43	52	S	E124405-26	-0.043

44	53	S	E124405-27	-0.045
45	54	S	E124405-28	-0.046
46	0	N	Null	-0.006N
47	1	D	Drift	4.992
48	0	B	Final Base	-0.003

CORRECTIONS

Channel	:	2
Baseline	:	Yes
Drift	:	Yes
Carryover	:	Yes
%:		0.3

* ... Sample offscale
\+ ... Result higher than sample limit
\- ... Result lower than sample limit
P ... Standard passed
F ... Standard failed
N ... Value not calculated or not used
R ... Resample after offscale
M ... Peak marker moved manually
D ... Diluted sample
H ... Dual calibration used

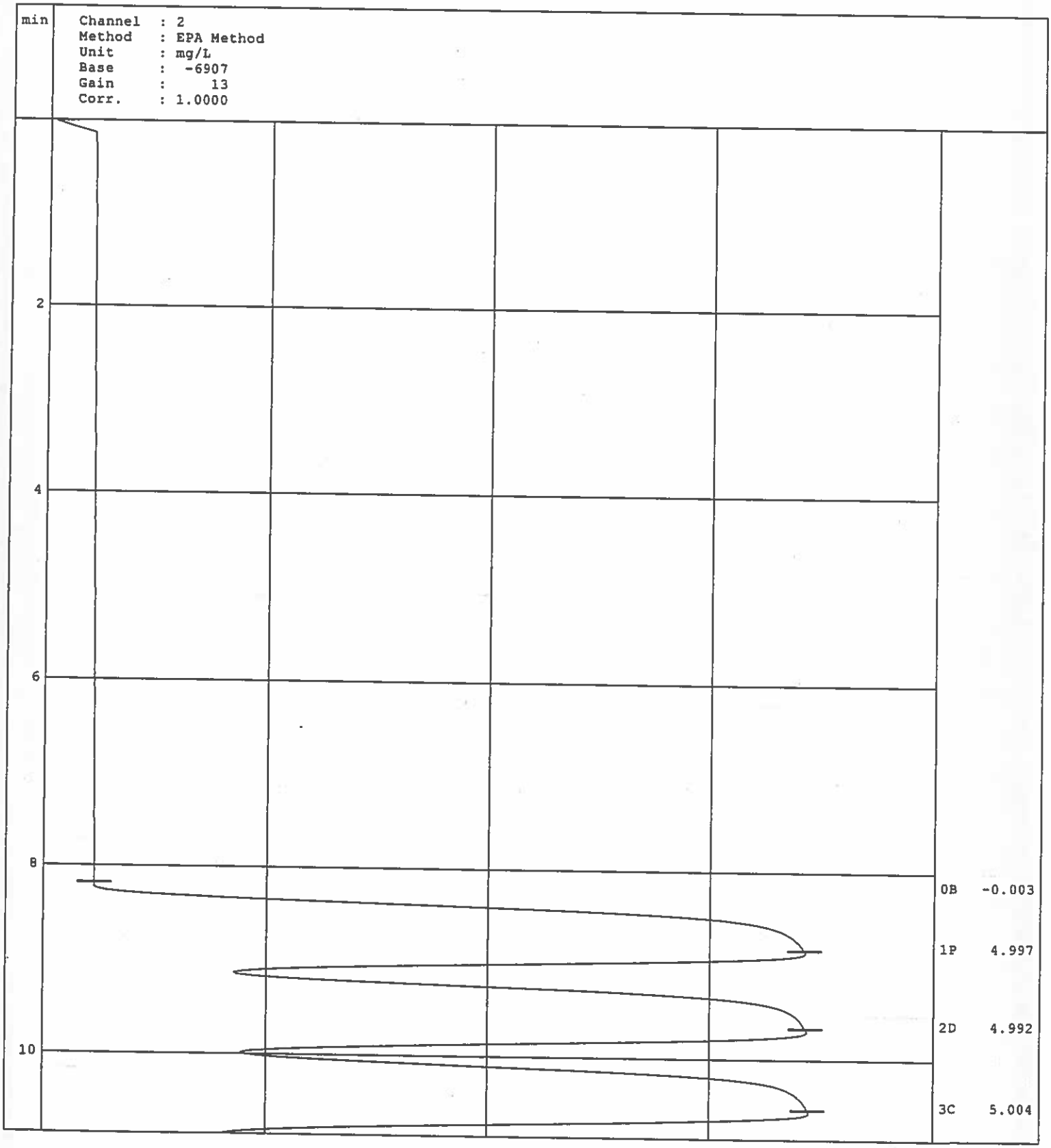
** <END OF REPORT> **

AA3-NUTS 2

Post-run report

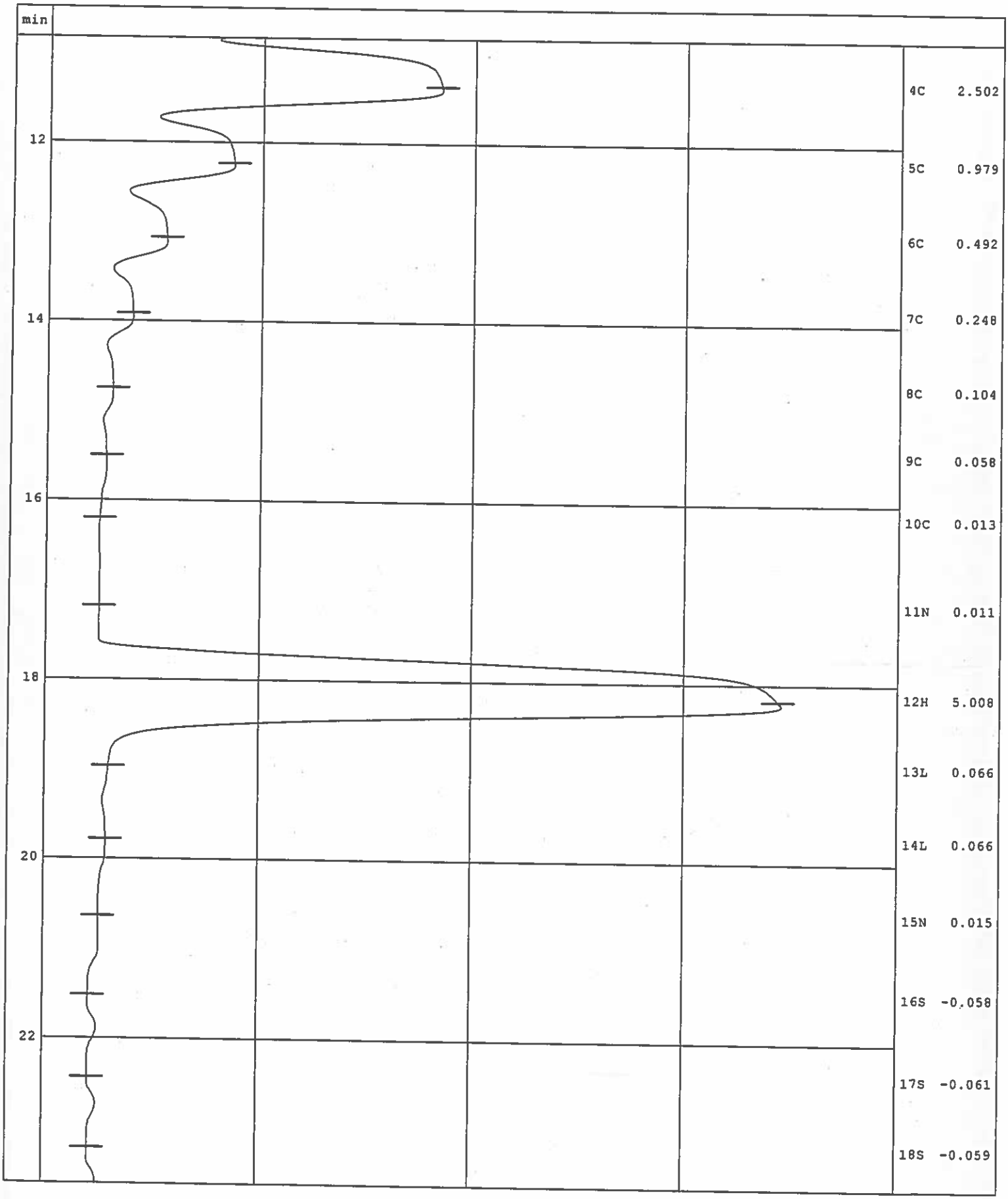
Name of run :121108C.RUN
Comment :13-0013 Yellow Bluff Dust Study SCAN

Name of analysis :Ammonia.ANL



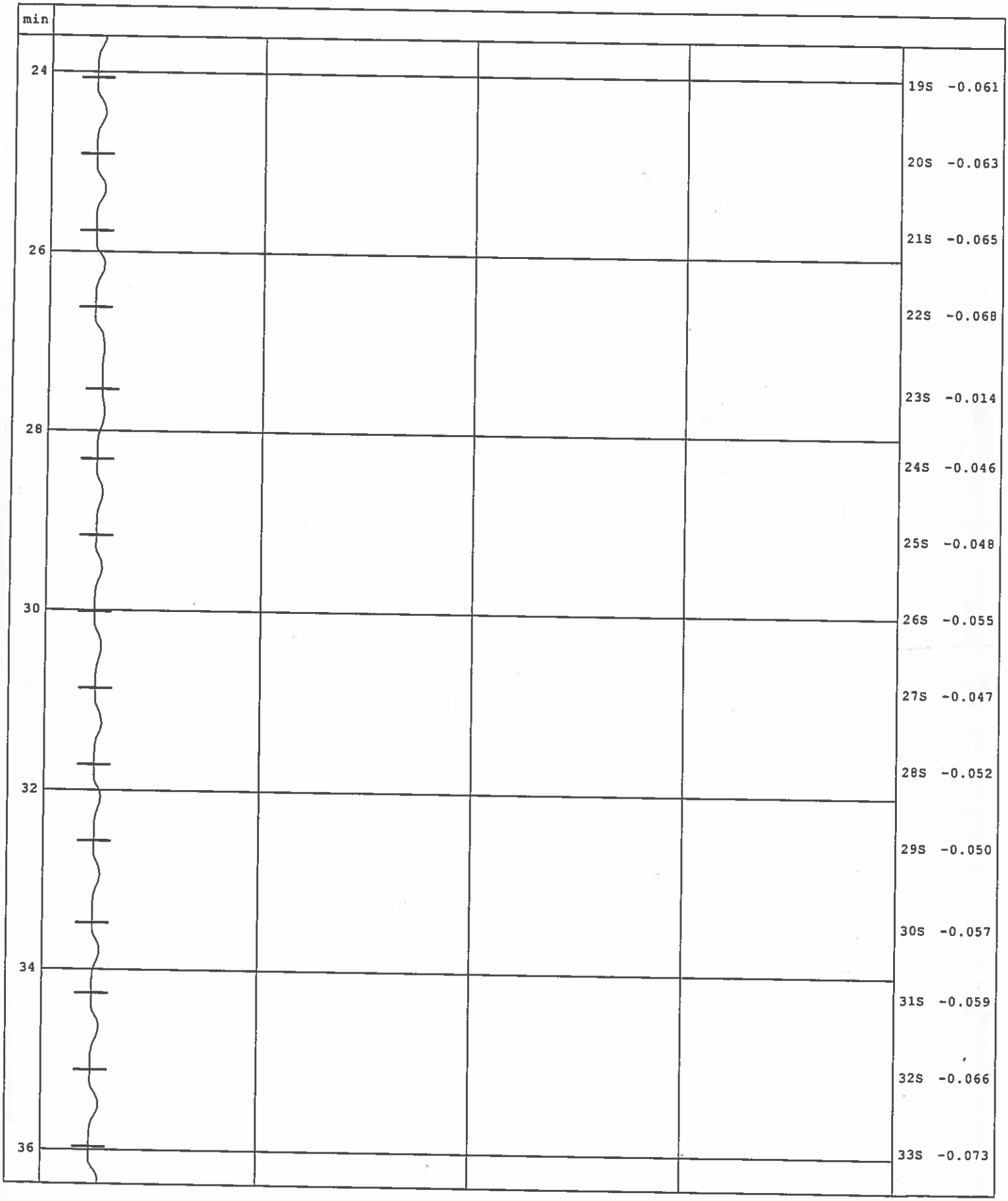
Name of run :121108C.RUN
Comment :13-0013 Yellow Bluff Dust Study SCAN

Name of analysis :Ammonia.ANL



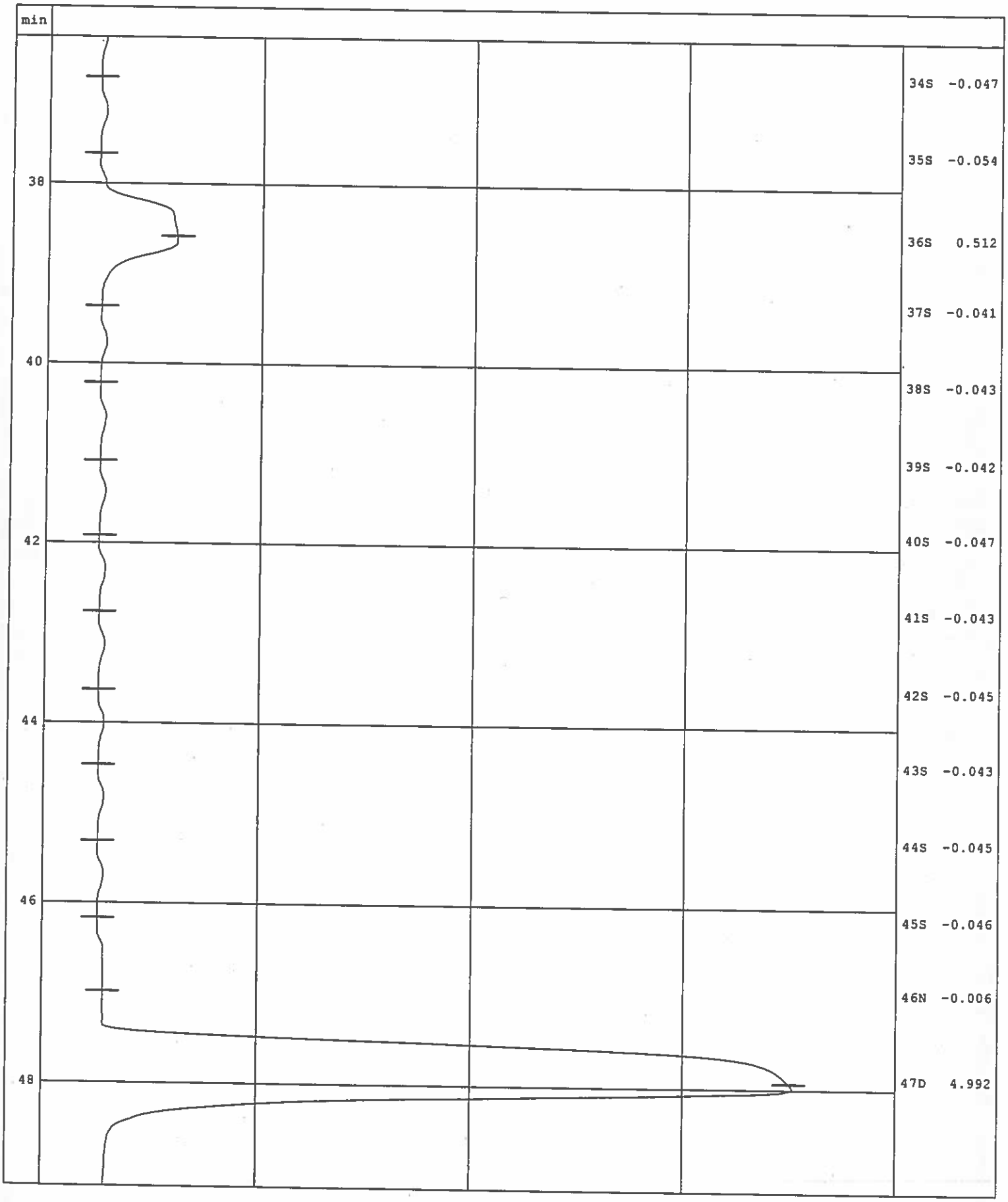
Name of run :121108C.RUN
Comment :13-0013 Yellow Bluff Dust Study SCAN

Name of analysis :Ammonia.ANL



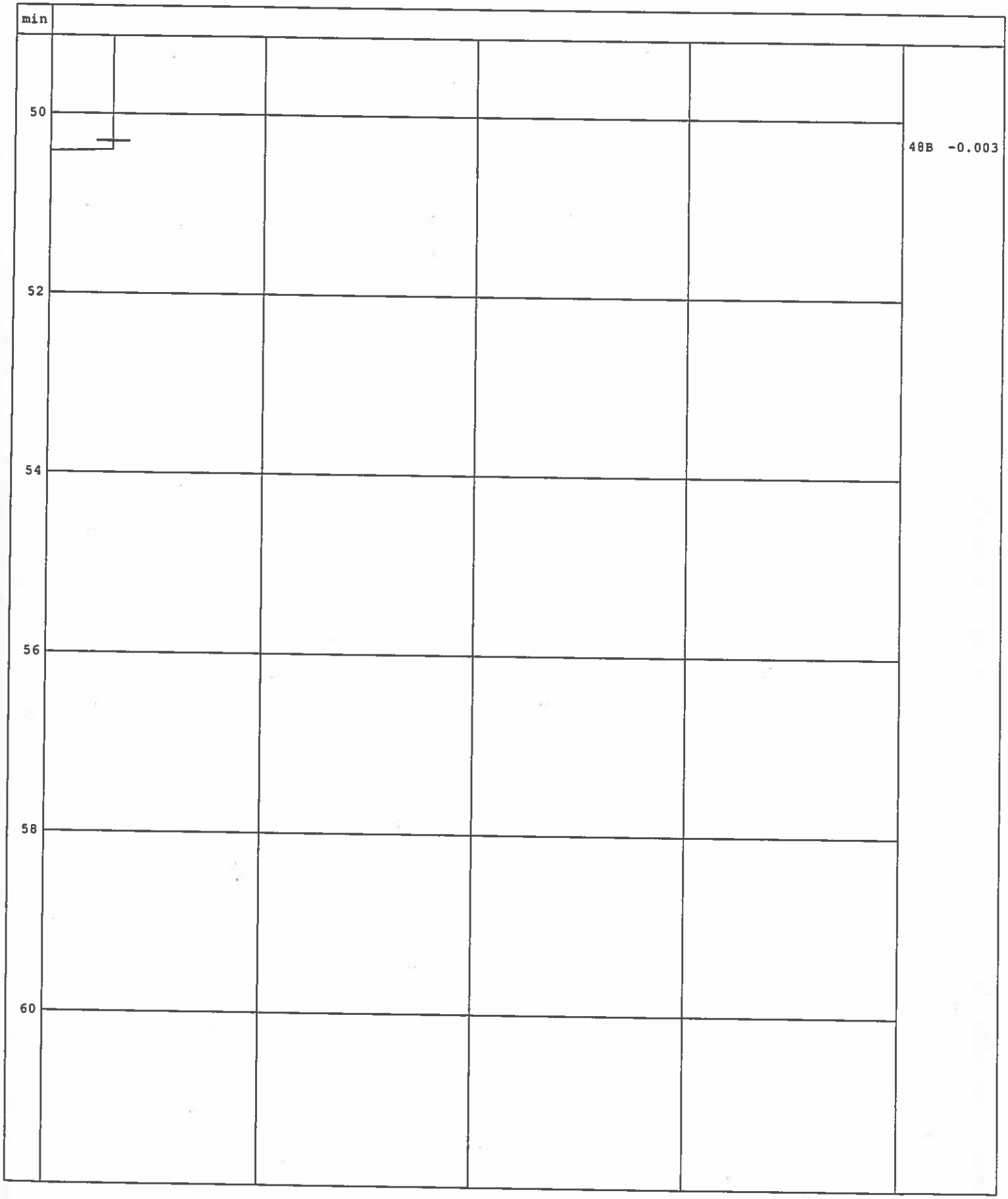
Name of run :121108C.RUN
Comment :13-0013 Yellow Bluff Dust Study SCAN

Name of analysis :Ammonia.ANL



Name of run :121108C.RUN
Comment :13-0013 Yellow Bluff Dust Study SCAN

Name of analysis :Ammonia.ANL

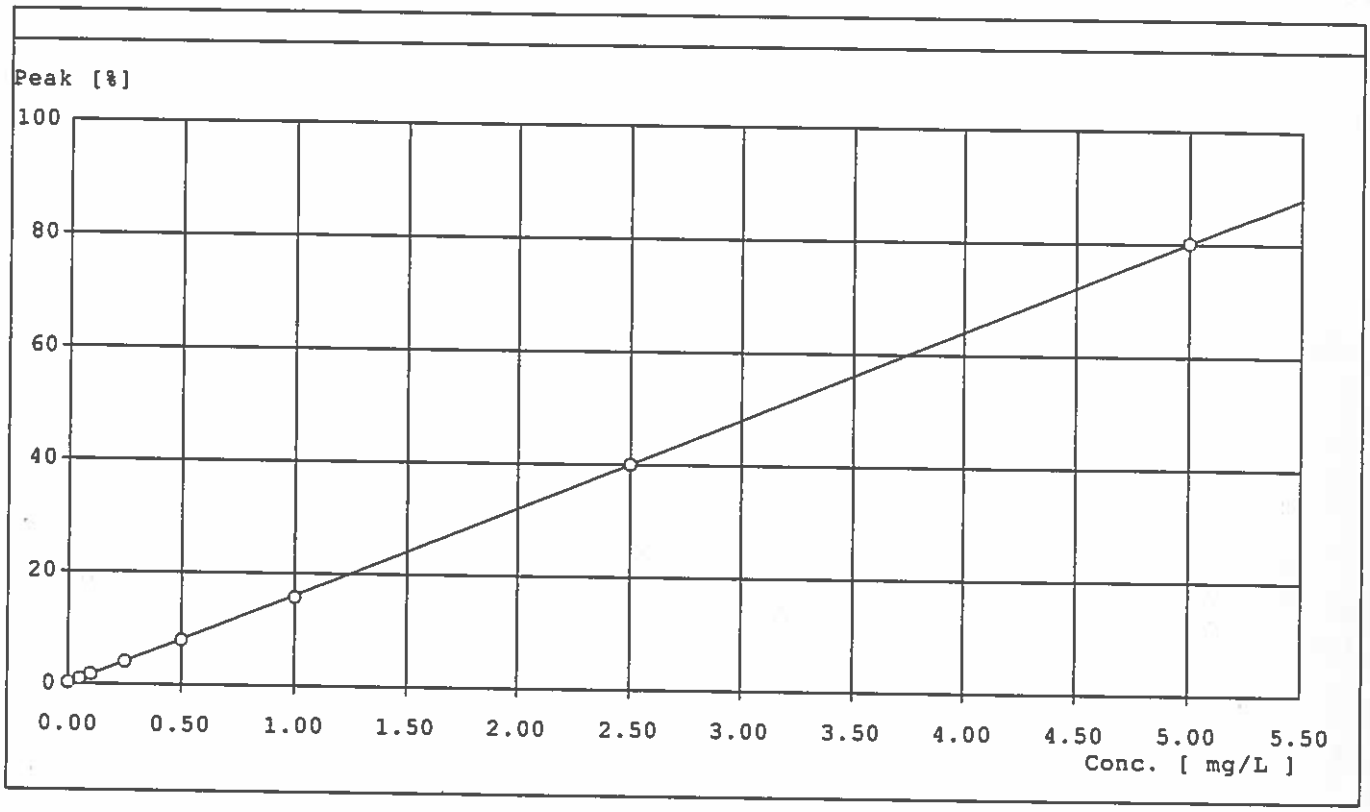


AA3-NUTS 2

Post-run report

Name of run :121108C.RUN
Comment :13-0013 Yellow Bluff Dust Study SCAN

Name of analysis :Ammonia.ANL
Date of report :11/9/2012



Channel :2
Method :EPA Method
Curve fit :Linear
Corr.coeff.(r) :1.0000

Date of run :11/9/2012

Equation :y = bx + a

y = conc. in
x = peak height in digital units
a = -3.5666E-001
b = 9.5432E-005

Corrections
Baseline Corr. done
Drift Correction done
Carryover Corr. done - 0.34 %

Calibrant Values

Type	Calculated	Target	Diff.[mg/L]	Diff. (%)
1C	5.004	5.000	0.004	0.07
2C	2.502	2.500	0.002	0.10
3C	0.979	1.000	-0.021	-2.11
4C	0.492	0.500	-0.008	-1.52
5C	0.248	0.250	-0.002	-0.80
6C	0.104	0.100	0.004	3.89
7C	0.058	0.050	0.008	16.54
8C	0.013	0.000	0.0	---

AA3-NUTS 2

Post-run report

Name of Run	:121108C	Name of Analysis	:Ammonia
Date	:11/8/2012	System No.	:1
Sample/Hour	:70	Sample Time	:39
Sample/Wash	:3.0	Wash Time	:12.0
Statistics	:No	CLP	:No

Channel / Method

Channel	2
Method	EPA Method
Unit	mg/L
Inverse Chem.	No
Sample limit	No
Sample limit low	0.000
Sample limit high	0.000
Baseline Corr.	Yes
Drift Correction	Yes
Carryover Corr.	Yes
Calibration Fit	L
Base Calibration	No
Base Concentration	0.000
Carryover Factor	0.000
QCLink	
QCCopy	No
Dual-cal-run : Second calibration from	
Calibrant 1	5.000
Calibrant 2	2.500
Calibrant 3	1.000
Calibrant 4	0.500
Calibrant 5	0.250
Calibrant 6	0.100
Calibrant 7	0.050
Calibrant 8	0.000
Calibrant 9	0.000
Calibrant 10	0.000
Smoothing	8
Peak Window Start	50
Peak Window End	105
Spike Recovery	0.000
Baseline Max Heigh [%]	26
Baseline Noise	0.6
Primer Max Heigh [%]	50
Primer Rise	0.5
Primer Rise After	6
Primer After Last Base	Yes

QC Limits

Channel	2

SEAL Analytical AACE 6.07

Tray Protocol

QC 1	Cond. 1	Below/Equal
	Limit 1	0.700
	Action 1	Continue
	Cond. 2	Above/Equal
	Limit 2	1.300
	Action 2	Continue
	Autocopy	No
	Filename	
QC 2	Unused	
QC 3	Unused	
QC 4	Unused	
QC 5	Unused	
QC 6	Unused	
QC 7	Unused	
QC 8	Unused	
QC 9	Unused	
QC10	Unused	

Tray / Cups

Number of Cups : 38

Number of Samples : 30

No	Cup	Type	Sample ID
1	1	P	Primer
2	1	D	Drift
3	1	C	5.0
4	2	C	2.5
5	3	C	1.0
6	4	C	0.5
7	5	C	0.25
8	6	C	0.10
9	7	C	0.05
10	8	C	0.00
11	0	N	Null
12	1	H1	High
13	7	L1	Low
14	7	L1	Low
15	0	N	Null
16	25	S	BLK1
17	26	S	BLK2
18	27	S	E124405-01
19	28	S	E124405-02
20	29	S	E124405-03
21	30	S	E124405-04
22	31	S	E124405-05
23	32	S	E124405-06
24	33	S	E124405-07
25	34	S	E124405-08
26	35	S	E124405-09
27	36	S	E124405-10
28	37	S	E124405-11
29	38	S	E124405-12
30	39	S	E124405-13
31	40	S	E124405-14
32	41	S	E124405-15
33	42	S	E124405-16

34	43	S	E124405-17
35	44	S	E124405-18
36	45	S	E124405-19
37	46	S	E124405-20
38	47	S	E124405-21
39	48	S	E124405-22
40	49	S	E124405-23
41	50	S	E124405-24
42	51	S	E124405-25
43	52	S	E124405-26
44	53	S	E124405-27
45	54	S	E124405-28
46	0	N	Null
47	1	D	Drift
48	0	E	End

Traceability of TKN/Ammonia Standards

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Intermediate Std - NH_3 / TKN standards

Prepared by: M. Dejesus

Intermediate Std ID#	Std conc.	Date prep.	Exp. Date	Primary Std. ID #	Amt. of Primary Std. used	Final Vol.
(#2110701) IS-110712-100	100 ppm	11/07/12	11/21/12	(#2081602) PS-081612-NH_3	10 ml	100 mL
(#2110702) IS-110712-50	50 ppm	↓	↓	(#2081603) PS-081512-NH_3	5 ml	100 mL

Working Std's for Calibration

Working Std. ID #	Std. Conc.	Date Prep.	Exp. Date	Intermediate Std. ID# or Working Std. ID#		Amt. of WS or IS used to Prepare Working Standard	Final Vol.
WS-110712-0.05	0.05 ppm	11/07/12	11/21/12	WS IS-110712	- 0.50 ppm - 100 ppm	10 mL 0.5 ppm WS or 50 µL 100 ppm IS	100 mL
WS-110712-1.0	0.10 ppm			WS IS	- 1.0 ppm - 100 ppm	10 mL 1.0 ppm WS or 100 µL 100 ppm IS	100 mL
WS-110712-0.25	0.25 ppm			WS IS	- 2.5 ppm - 100 ppm	10 mL 2.5 ppm WS or 250 µL 100 ppm IS	100 mL
WS-110712-0.50	0.50 ppm			WS IS	- 5.0 ppm - 100 ppm	10 mL 5.0 ppm WS or 500 µL 100 ppm IS	100 mL
WS-110712-1.0	1.0 ppm			IS	- 100 ppm	1.0 mL 100 ppm IS	100 mL
WS-110712-2.5	2.5 ppm			IS	- 100 ppm	2.5 mL 100 ppm IS	100 mL
WS-110712-5.0	5.0 ppm			IS	- 100 ppm	5.0 mL 100 ppm IS	100 mL

) IS-110712-100 Metals Element ID: #2110801
IS-110712-50 Metals Element ID: #2110802
MAD 11/8/12

Form Ver 01/20/2005

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Nutrient Sample Preservation Logbook

Project Name: Yellow Bluff Dust Study

Project #: 13-0013

Work Order #: E124405

Analyst: M. Degesus

Date preservation checked: 11/8/12 * Filtrate preserved in-house on 11/8/12 hard 11/8/12

Sample ID	pH < 2 (H_2SO_4)?	Chlorine present?
E124405-01	✓	ND
-02	✓	
-03	✓	
-04	✓	
-05	✓	
-06	✓	
-07	✓	
-08	✓	
-09	✓	
-10	✓	
-11	✓	
-12	✓	
-13	✓	
-14	✓	
-15	✓	
-16	✓	
-17	✓	
-18	✓	
-19	✓	
-20	✓	
-21 ✓		
-22 ✓		
-23 ✓		
-24 ✓		
-25 ✓		
-26 ✓		
-27 ✓		
-28 ✓		

AutoAnalyzer 3 Utilization/Maintenance Logbook

XY-2 Serial #: 5133A25415
Pump Serial #: 8007769
Colorimeter Serial #: 8007656

Instrument ID: AA3-NUTS2
Installation Date: 10/18/2011

Date: 11/8/12	Comments: Analyzed samples E124302-03→09 on
Project: 13-0003 United Metals	11/8/12. Samples requiring dilution to be re analyzed
	w/ next run. All QC passed.
Parameter: NH_3 (undistilled)	reagents: NH_3-110812-01→04
Analyst: M. DeJesus	
Date: 11/9/12	Comments: Analyzed samples E124405-01→28 and
Project: 13-0013 Yellow Bluff Dust Study 13-0003 United Metals (reruns)	E124302-03,04. All QC passed. Projects batched
	separately.
Parameter: NH_3 (undistilled)	reagents: NH_3-110812-01→04.
Analyst: M. DeJesus	
Date:	Comments:
Project:	
Parameter:	
Analyst:	
Date:	Comments:
Project:	
Parameter:	
Analyst:	
Date:	Comments:
Project:	
Parameter:	
Analyst:	

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EMPTY BOTTLE PREPARATION LOG

Project Name/Number: 13-0013 Yellow Bluff Dust Study E124405

Date: 11/07/12

Analyst: T. White

Lot No. HNO_3/ HCl: NA

Sample No.	Bottle Type*	DI wtr added (mL)	Preservative added (amount/type)
~~Prep Filter - Blk~~	~~200ml Flask~~	~~200 mls~~	
E124405-03	filter	200mls	NA
E124405-04	↓	↓	↓
E124405-05			
E124405-07			
E124405-08			
E124405-09			
E124405-10			
E124405-11			
E124405-12			
E124405-13			
E124405-14	↓	↓	↓

*Bottle type: 1LP- 1 Liter Plastic
8ozG- 8 ounce glass
1GalAm- 1 gallon glass amber bottle

Notes: These filters were sonicated in 50 mls DI H_2O - poured up to a final volume of 200 mls - aliquoted into 50 ml digi tubes for metals, anions, and ammonia. See directions from Mike Wasko in workorder notes.

Form Ver 03/26/2003

T. White
11/7/12

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EMPTY BOTTLE PREPARATION LOG

Project Name/Number: 13-0013 Yellow Bluff Dust Study E124405

Date: 11/07/12

Analyst: T. White

Lot No. HNO_3/ HCl: NA

Sample No.	Bottle Type*	DI wtr added (mL)	Preservative added (amount/type)
E124405- 15	filter	200 mls	NA
E124405- 16			
E124405- 17			
E124405- 18			
E124405- 20			
E124405- 21			
E124405- 22			
E124405- 23			
E124405- 24			
E124405- 25			
E124405 26			
E124405 27			

*Bottle type: 1LP- 1 Liter Plastic
8ozG- 8 ounce glass
1GalAm- 1 gallon glass amber bottle

E124405-28

Notes:

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EMPTY BOTTLE PREPARATION LOG

Project Name/Number: 13-0013 Yellow Bluff Dust Study E124405

Date: 11/07/12

Analyst: T. White

Lot No. HNO_3/ HCl: NA

Sample No.	Bottle Type*	DI wtr added (mL)	Preservative added (amount/type)
E124405-01	teflon canister	200 mls	NA
E124405-02	↓	↓	↓
E124405-06	↓	↓	↓
E124405-19	↓	↓	↓
Prepped - BLK	200ml Flask	200 mls	NA

*Bottle type:
1LP- 1 Liter Plastic
8ozG- 8 ounce glass
1GalAm- 1 gallon glass amber bottle

Notes: These canisters were rinsed + sonicated with 200 mls DI H_2O - then aliquoted into 50ml digitubes for metals, anions, and ammonia. See directions from Mike Wasko in Work ordernotes. T. White 11/7/12

Form Ver 03/26/2003