

EMEP – 31st intercomparison of analytical methods

Laboratory 3, Czech Hydrometeorological Institute, Praha (Czech Republic)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	15.915	16	15.773	1.637	0.087	S
J2	NH ₃	14.885	15.04	14.865	1.941	0.01	S
J5	NH ₃	38.255	40.1	38.658	4.736	-0.085	S
J6	NH ₃	33.015	34.09	33.282	3.647	-0.073	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 4, Aarhus University, Department of Environmental Science (Denmark)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	14.455	16	15.773	1.637	-0.805	S
J2	NH ₃	13.325	15.04	14.865	1.941	-0.793	S
J5	NH ₃	36.745	40.1	38.658	4.736	-0.404	S
J6	NH ₃	30.995	34.09	33.282	3.647	-0.627	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 5, Finnish Meteorological Institute. Air Quality Department (Finland)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	15.28	16	15.773	1.637	-0.301	S
J2	NH ₃	13.6	15.04	14.865	1.941	-0.652	S
J5	NH ₃	32.18	40.1	38.658	4.736	-1.368	S
J6	NH ₃	32.53	34.09	33.282	3.647	-0.206	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 6, SGS Multilab (France)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	20.035	16	15.773	1.637	2.604	Q
J2	NH ₃	18.965	15.04	14.865	1.941	2.113	Q
J5	NH ₃	50.205	40.1	38.658	4.736	2.438	Q
J6	NH ₃	42.935	34.09	33.282	3.647	2.647	Q

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than $\pm 20\%$ of the expected value

Q – Questionable: Your result deviates between $\pm 20\text{--}40\%$ of the expected value

U – Unsatisfactory: Your result deviates more than $\pm 40\%$ of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 8, Umweltbundesamt, Langen (Germany)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	15.85	16	15.773	1.637	0.047	S
J2	NH ₃	14.25	15.04	14.865	1.941	-0.317	S
J5	NH ₃	39.65	40.1	38.658	4.736	0.209	S
J6	NH ₃	33.65	34.09	33.282	3.647	0.101	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 10, Institute for Atmospheric Physics (Hungary)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	12.784	16	15.773	1.637	-1.826	Q
J2	NH ₃	10.135	15.04	14.865	1.941	-2.437	Q
J5	NH ₃	26.636	40.1	38.658	4.736	-2.538	Q
J6	NH ₃	24.479	34.09	33.282	3.647	-2.414	Q

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than $\pm 20\%$ of the expected value

Q – Questionable: Your result deviates between $\pm 20-40\%$ of the expected value

U – Unsatisfactory: Your result deviates more than $\pm 40\%$ of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

**Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001**

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 13, C.N.R. Istituto Inquinamento Atmosferico (Italy)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	15.41	16	15.773	1.637	-0.222	S
J2	NH ₃	13.27	15.04	14.865	1.941	-0.822	S
J5	NH ₃	37.33	40.1	38.658	4.736	-0.28	S
J6	NH ₃	30.44	34.09	33.282	3.647	-0.779	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 15, Norwegian Institute for Air Research NILU (Norway)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	16.11	16	15.773	1.637	0.206	S
J2	NH ₃	13.82	15.04	14.865	1.941	-0.538	S
J5	NH ₃	39.06	40.1	38.658	4.736	0.085	S
J6	NH ₃	32.36	34.09	33.282	3.647	-0.253	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 16, Institute of Meteorology and Water Management, Warsaw (Poland)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	16.43	16	15.773	1.637	0.402	S
J2	NH ₃	16.73	15.04	14.865	1.941	0.961	S
J5	NH ₃	40.73	40.1	38.658	4.736	0.437	S
J6	NH ₃	34.94	34.09	33.282	3.647	0.455	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 19, Centro Nacional de Sanidad Ambiental (Spain)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	16.69	16	15.773	1.637	0.561	S
J2	NH ₃	15.71	15.04	14.865	1.941	0.436	S
J5	NH ₃	41.54	40.1	38.658	4.736	0.608	S
J6	NH ₃	35.1	34.09	33.282	3.647	0.498	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 20, Swedish Environmental Research Institute IVL, Gothenburg (Sweden)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	15.82	16	15.773	1.637	0.029	S
J2	NH ₃	14.72	15.04	14.865	1.941	-0.074	S
J5	NH ₃	40.12	40.1	38.658	4.736	0.309	S
J6	NH ₃	34.02	34.09	33.282	3.647	0.202	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 31, Slovak Hydrometeorological Institute (Slovakia)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	15.34	16	15.773	1.637	-0.264	S
J2	NH ₃	14.45	15.04	14.865	1.941	-0.214	S
J5	NH ₃	37.12	40.1	38.658	4.736	-0.325	S
J6	NH ₃	33.17	34.09	33.282	3.647	-0.031	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than $\pm 20\%$ of the expected value

Q – Questionable: Your result deviates between $\pm 20-40\%$ of the expected value

U – Unsatisfactory: Your result deviates more than $\pm 40\%$ of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

**Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001**

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 32, Atmospheric Pollution Research Laboratory, Institute of Physics, Vilnius (Lithuania)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	16.18	16	15.773	1.637	0.249	S
J2	NH ₃	16.05	15.04	14.865	1.941	0.611	S
J5	NH ₃	39.49	40.1	38.658	4.736	0.176	S
J6	NH ₃	34.37	34.09	33.282	3.647	0.298	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 33, Environmental Pollution Observ. Centre (Latvia)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	16.86	16	15.773	1.637	0.664	S
J2	NH ₃	16.11	15.04	14.865	1.941	0.642	S
J5	NH ₃	42.06	40.1	38.658	4.736	0.718	S
J6	NH ₃	35.46	34.09	33.282	3.647	0.597	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

**Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001**

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 34, Ministry of Environment and Urbanisation (Turkey)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	0.685	16	15.773	1.637	-9.219	U
J2	NH ₃	0.641	15.04	14.865	1.941	-7.329	U
J5	NH ₃	1.849	40.1	38.658	4.736	-7.772	U
J6	NH ₃	1.475	34.09	33.282	3.647	-8.722	U

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than $\pm 20\%$ of the expected value

Q – Questionable: Your result deviates between $\pm 20-40\%$ of the expected value

U – Unsatisfactory: Your result deviates more than $\pm 40\%$ of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 36, Hydrometeorological Institute of Slovenia (Slovenia)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	15.155	16	15.773	1.637	-0.377	S
J2	NH ₃	14.855	15.04	14.865	1.941	-0.005	S
J5	NH ₃	39.555	40.1	38.658	4.736	0.189	S
J6	NH ₃	33.755	34.09	33.282	3.647	0.13	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than $\pm 20\%$ of the expected value

Q – Questionable: Your result deviates between $\pm 20\text{--}40\%$ of the expected value

U – Unsatisfactory: Your result deviates more than $\pm 40\%$ of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 38, Estonian Environmental Research Centre, Tallinn (Estonia)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	18.27	16	15.773	1.637	1.526	S
J2	NH ₃	18.07	15.04	14.865	1.941	1.652	Q
J5	NH ₃	38.67	40.1	38.658	4.736	0.002	S
J6	NH ₃	34.57	34.09	33.282	3.647	0.353	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 39, Environmental Monitoring Laboratory, Institute of Environmental Protection (Poland)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	13.15	16	15.773	1.637	-1.603	S
J2	NH ₃	14.65	15.04	14.865	1.941	-0.111	S
J5	NH ₃	40.55	40.1	38.658	4.736	0.399	S
J6	NH ₃	33.95	34.09	33.282	3.647	0.183	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than $\pm 20\%$ of the expected value

Q – Questionable: Your result deviates between $\pm 20-40\%$ of the expected value

U – Unsatisfactory: Your result deviates more than $\pm 40\%$ of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 158, Acid Deposition and Oxidant Research Center ADOCRC, Niigata (Japan)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	14.175	16	15.773	1.637	-0.976	S
J2	NH ₃	13.285	15.04	14.865	1.941	-0.814	S
J5	NH ₃	32.845	40.1	38.658	4.736	-1.227	S
J6	NH ₃	27.365	34.09	33.282	3.647	-1.623	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than $\pm 20\%$ of the expected value

Q – Questionable: Your result deviates between $\pm 20\text{--}40\%$ of the expected value

U – Unsatisfactory: Your result deviates more than $\pm 40\%$ of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

EMEP – 31st intercomparison of analytical methods

Laboratory 165, Institute of Meteorology and Hydrology, Ha Noi city (Vietnam)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J1	NH ₃	15.77	16	15.773	1.637	-0.002	S
J2	NH ₃	15.55	15.04	14.865	1.941	0.353	S
J5	NH ₃	41.77	40.1	38.658	4.736	0.657	S
J6	NH ₃	35.26	34.09	33.282	3.647	0.542	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

¤ EMEP quality norm; the letters in the column indicates:

S – Satisfactory: Your result deviates less than ±20% of the expected value

Q – Questionable: Your result deviates between ±20-40% of the expected value

U – Unsatisfactory: Your result deviates more than ±40% of the expected value

B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:
<http://www.nilu.no/projects/ccc/intercomparison.html>

Deltaker i CIENS og Framsenteret / Associated with CIENS and the Fram Centre
ISO-sertifisert etter / ISO certified according to NS-EN ISO 9001/ISO 14001

NILU – Norsk institutt for luftforskning
PO Box 100
NO-2027 KJELLER, Norway
Phone: +47 63 89 80 00/Fax: +47 63 89 80 50
Besøk/visit: Instituttveien 18, 2007 Kjeller

NILU – Norsk institutt for luftforskning
Framsenteret / The Fram Centre
NO-9296 TROMSØ, Norway
Phone: +47 77 75 03 75/Fax: +47 77 75 03 76
Besøk/visit: Hjalmar Johansens gt. 14, 9007 Tromsø

e-mail: nilu@nilu.no
nilu-tromso@nilu.no
Internet: www.nilu.no
Bank: 5102.05.19030
Foretaksnr./Enterprise no. 941705561

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.