


# ACCREDITATION SCOPE OF THE RESEARCH LABORATORY No AB 1015

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 AB 1015	Name and address of the main organization
	<b>POCH S.A.</b> <b>Ul. Sowińskiego 11</b> <b>44-101 Gliwice</b>
	Name, address, laboratory
	<b>QUALITY CONTROL DEPARTMENT</b> <b>Ul. Sowińskiego 11</b> <b>44-101 Gliwice</b>
Domain of research: Chemistry Sampling for examination Work environment	Names of accredited technical departments of the laboratory Name, surname and position of a person / persons authorizing the research reports <b>Laboratory of Environment Protection and Work Hygiene</b> MSc Eng. Danuta Komoniewska-Śliwa – Head of the Environment Protection and Work Hygiene Laboratory Łucja Kuflik – Specialist Analytical chemist Beata Radecka – Analytical chemist  <b>Spectrometry Laboratory</b> MA, Jadwiga Charasińska – Head of the Spectrometry Laboratory MSc Eng. Monika Kasprzyk – Specialist Analytical Chemist  <b>Chromatography and Spectrophotometry Laboratory</b> MSc Eng. Alicja Łanowy – Head of the Chromatography and Spectrophotometry Laboratory MA Beata Wezner – Specialist Analytical Chemist  <b>SpectroPrevent Laboratory</b> MA Mariusz Ścisłowski – Head of the SpectroPrevent Laboratory MA Żaneta Dobias – Specialist Analytical Chemist

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<b>Laboratory of Environment Protection and Work Hygiene</b> <b>MSc Eng. Danuta Komoniewska-Śliwa</b> <b>Łucja Kuflik</b> <b>Beata Radecka</b>		
<b>Examined objects / Group of objects</b>	<b>Examined features and examination methods</b>	<b>Standards and/or documented examination procedures</b>
Work environment - air	Sampling	PN-Z-04008-7:2002 PN-Z-04008-7:2002 /Az1:2004
	Concentration of total dust Range: (0.5 – 41.7) mg/m <sup>3</sup> Filtration and gravimetric method	PN-91/Z-04030/05
	Concentration of respirable dust Range: (0.3 – 14.6) mg/m <sup>3</sup> Filtration and gravimetric method	PN-91/Z-04030/06
	Concentration of ammonia Range: (4.5 - 60) mg/m <sup>3</sup> Spectrophotometric method	ZN-POCH S.A. 300:2008 Edition 02 dated 21.10.2008
	Concentration of hydrogen chloride Range: (1.25 – 12.5) mg/m <sup>3</sup> Turbidimetry method	ZN-POCH S.A. 326:2008 Edition 01 dated 21.10.2008
	Concentration of formaldehyde Range: (0.125 – 5.00) mg/m <sup>3</sup> Spectrophotometric method	ZN-POCH S.A. 325:2008 Edition 01 dated 21.10.2008
	Concentration of carbon oxide Range: (2.3 - 500) mg/m <sup>3</sup> Direct readout method with Multigas III measuring instrument	ZN-POCH S.A. 327:2008 Edition 01 dated 22.10.08
	Concentration of nitrogen oxide Range: (0.25 - 62) mg/m <sup>3</sup> Direct readout method with Multigas III measuring instrument	ZN-POCH S.A. -327:2008 Edition 01 dated 22.10.08
	Concentration of nitrogen dioxide Range: (0.19 - 38) mg/m <sup>3</sup> Direct readout method with Multigas III measuring instrument	ZN-POCH S.A. 327:2008 Edition 01 dated 22.10.08
Work environment - air samples (washer with absorbing solution)	Ammonia content Range: (0.0225 – 0.30) mg Spectrophotometric method	ZN-POCH S.A. 300:2008 Edition 02 dated 21.10.2008
	Hydrogen chloride content Range: (0.025 – 0.250) mg Turbidimetry method	ZN-POCH S.A. 326:2008 Edition 01 dated 21.10.2008
	Formaldehyde content Range: (0.001 – 0.040) mg Spectrophotometric method	ZN-POCH S.A. 325:2008 Edition 01 dated 21.10.2008
Work environment - air	Concentration of manganese Range: (0.005 – 0.52) mg/m <sup>3</sup> Method of Flame Atomic Absorption Spectroscopy (FAAS)	ZN-POCH S.A. 322:2008 Edition 01 dated 21.10.2008
	Concentration of cadmium Range: (0.0017 – 0.035) mg/m <sup>3</sup> Method of Flame Atomic Absorption Spectroscopy (FAAS)	ZN-POCH S.A. 321:2008 Edition 01 dated 21.10.2008

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Examined objects / Group of objects	Examined features and examination methods	Standards and/or documented examination procedures
Work environment - air	Concentration of silver Range: (0.0035 – 0.086) mg/m <sup>3</sup> Method of Flame Atomic Absorption Spectroscopy (FAAS)	ZN-POCH S.A. 323:2008 Edition 01 dated 21.10.2008
	Concentration of iron Range: (0.087 – 5.21) mg/m <sup>3</sup> Method of Flame Atomic Absorption Spectroscopy (FAAS)	ZN-POCH S.A. 324:2008 Edition 01 dated 21.10.2008
	Concentration of selenium Range: (0.014 – 3.5) mg/m <sup>3</sup> Method of Inductively Coupled Plasma – Optical Emission Spectrometry (ICP-OES)	ZN-POCH S.A. 302:2008 Edition 03 dated 21.10.2008
	Concentration of chromium Range: (0.014 – 3.5) mg/m <sup>3</sup> Method of Inductively Coupled Plasma – Optical Emission Spectrometry (ICP-OES)	ZN-POCH S.A. 303:2008 Edition 03 dated 21.10.2008
	Concentration in mix: acetone (7.4 - 1976) mg/m <sup>3</sup> ethyl alcohol (4.6 - 4685) mg/m <sup>3</sup> n-butyl alcohol (2.9 - 189) mg/m <sup>3</sup> isobutyl alcohol (3.8 - 797) mg/m <sup>3</sup> n-butyl acetate (8.4 - 1744) mg/m <sup>3</sup> toluene (4.0 - 423) mg/m <sup>3</sup> xylene (isomers mix) (4.2 - 436) mg/m <sup>3</sup> Gas chromatography method (GC-FID)	ZN-POCH S.A. 334:2008 Edition 01 dated 20.10.08
	Concentration of benzene Range: (0.23 -12.92) mg/m <sup>3</sup> Gas chromatography method (GC-FID)	ZN-POCH S.A. 329:2008 Edition 01 dated 24.10.08
	Concentration of hexane Range: (19.8 - 484) mg/m <sup>3</sup> Gas chromatography method (GC-FID)	ZN-POCH S.A. 307:2008 Edition 02 dated 21.10.2008
	Concentration of heptane Range: (48.0 - 2064) mg/m <sup>3</sup> Gas chromatography method (GC-FID)	ZN-POCH S.A. 307:2008 Edition 02 dated 21.10.2008
	Concentration of diethyl ether Range: (74.4 - 1206) mg/m <sup>3</sup> Gas chromatography method (GC-FID)	ZN-POCH S.A. 332:2008 Edition 01 dated 24.10.08
	Concentration of pentane Range: (16.0 - 9439) mg/m <sup>3</sup> Gas chromatography method (GC-FID)	ZN-POCH S.A. 308:2008 Edition 02 dated 21.10.2008

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Examined objects / Group of objects	Examined features and examination methods	Standards and/or documented examination procedures
Work environment - air	Concentration of methylene chloride Range: (3.3 - 283) mg/m <sup>3</sup> Gas chromatography method (GC-FID)	ZN-POCH S.A. 330:2008 Edition 01 dated 22.10.08
	Concentration of chloroform Range: (5.0 - 100) mg/m <sup>3</sup> Gas chromatography method (GC-FID)	ZN-POCH S.A. 331:2008 Edition 01 dated 22.10.08
	Concentration of methyl alcohol Range: (20.0 - 3200) mg/m <sup>3</sup> Gas chromatography method (GC-FID)	ZN-POCH S.A. 333:2008 Edition 01 dated 23.10.08
	Concentration of acetonitrile Range: (15.0 - 150) mg/m <sup>3</sup> Gas chromatography method (GC-FID)	ZN-POCH S.A. 328:2008 Edition 01 dated 23.10.08
Work environment - noise	Equivalent level of sound A Maximum level of sound A Peak level of sound C Range (30 - 135) dB Exposure level to noise referred to 8-hour work shift or referred to work week.	PN-ISO 9612:2004 except clause 4.4 and 4.5 PN-N-01307:1994
Work environment - electric lighting	Illumination Range: (0.1 - 199900) lx Uniformity of illumination	PN-83/E-04040.03 except clause 2.5 and 2.7.3 PN-EN 12464-1:2004 re. clause 4.3 and 5

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<b>Spectrometry Laboratory MA Jadwiga Charasińska MSc Eng. Monika Kasprzyk</b>		
<b>Examined objects / Group of objects</b>	<b>Examined features and examination methods</b>	<b>Standards and/or documented examination procedures</b>
Work environment - air samples (filters)	Manganese content Range: (0.0038 – 0.375) mg Method of Flame Atomic Absorption Spectroscopy (FAAS)	ZN-POCH S.A. 322:2008 Edition 01 dated 21.10.2008
	Cadmium content Range: (0.0012 – 0.025) mg Method of Flame Atomic Absorption Spectroscopy (FAAS)	ZN-POCH S.A. 321:2008 Edition 01 dated 21.10.2008
	Silver content Range: (0.0025 – 0.062) mg Method of Flame Atomic Absorption Spectroscopy (FAAS)	ZN-POCH S.A. 323:2008 Edition 01 dated 21.10.2008
	Iron content Range: (0.062 – 3.750) mg Method of Flame Atomic Absorption Spectroscopy (FAAS)	ZN-POCH S.A. 324:2008 Edition 01 dated 21.10.2008
	Selenium content Range: (0.010 – 2.5) mg Method of Inductively Coupled Plasma – Optical Emission Spectrometry (ICP-OES)	ZN-POCH S.A. 302:2008 Edition 03 dated 21.10.2008
	Chromium content Range: (0.010 – 2.5) mg Method of Inductively Coupled Plasma – Optical Emission Spectrometry (ICP-OES)	ZN-POCH S.A. 303:2008 Edition 03 dated 21.10.2008

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<b>Chromatography and Spectrophotometry Laboratory</b> <b>MSc Eng. Alicja Łanowy</b> <b>MA Beata Wezner</b>		
<b>Examined objects / Group of objects</b>	<b>Examined features and examination methods</b>	<b>Standards and/or documented examination procedures</b>
Work environment - air samples (tubes with active carbon)	Content in mix: acetone (0.1473 – 39.6) mg ethyl alcohol (0.0919 – 93.7) mg n-butyl alcohol (0.0571 – 3.8) mg isobutyl alcohol (0.0757 – 15.9) mg ethyl acetate (0.1653 - 17.7) mg n-butyl acetate (0.1686 – 34.8) mg toluene (0.0797 – 8.5) mg xylene (isomers mix) (0.0838 – 8.7) mg Gas chromatography method (GC-FID)	ZN-POCH S.A. 334:2008 Edition 01 dated 20.10.08
	Benzene content Range: (0.0046 – 0.2584) mg Gas chromatography method (GC-FID)	ZN-POCH S.A. 329:2008 Edition 01 dated 24.10.08
	Hexane content Range: (0.1979 – 4.8436) mg Gas chromatography method (GC-FID)	ZN-POCH S.A. 307:2008 Edition 02 dated 21.10.2008
	Heptane content Range: (0.4800 - 206) mg Gas chromatography method (GC-FID)	ZN-POCH S.A. 307:2008 Edition 02 dated 21.10.2008
	Diethyl ether content Range: (0.3720 – 6.0320) mg Gas chromatography method (GC-FID)	ZN-POCH S.A. 332:2008 Edition 01 dated 24.10.08
	Pentane content Range: (0.1600 – 94.3920) mg Gas chromatography method (GC-FID)	ZN-POCH S.A. 308:2008 Edition 02 dated 21.10.2008
	Methylene chloride content Range: (0.0164 – 1.4160) mg Gas chromatography method (GC-FID)	ZN-POCH S.A. 330:2008 Edition 01 dated 22.10.08
	Chloroform content Range: (0.0050 – 0.1000) mg Gas chromatography method (GC-FID)	ZN-POCH S.A. 331:2008 Edition 01 dated 22.10.08
	Acetonitrile content Range: (0.1500 – 1.5000) mg Gas chromatography method (GC-FID)	ZN-POCH S.A. 328:2008 Edition 01 dated 23.10.08
Work environment - air samples (washer with absorbing solution)	Methyl alcohol content Range: (0.2000 – 32.0000) mg Gas chromatography method (GC-FID)	ZN-POCH S.A. 333:2008 Edition 01 dated 23.10.08

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<b>SpectroPrevent Laboratory</b> <b>MA Mariusz Ścisłowski</b> <b>MA Żaneta Dobias</b>		
Examined objects / Group of objects	Examined features and examination methods	Standards and/or documented examination procedures
Hair	Content: amphetamine (0.2 - 10) ng/mg metamphetamine (0.2 - 10) ng/mg 1,4-methylenedioxy-amphetamine (MDA) (0.2 - 10) ng/mg 1,4-methylenedioxy-metamphetamine (MDMA) (0.2 - 20) ng/mg 1,4-methylenedioxy-ethylamphetamine (MDEA) (0.2 - 5) ng/mg morphine (0.2 - 10) ng/mg codeine (0.2 - 5) ng/mg 6-monoacetylmorphine (6-MAM) (0.2 - 5) ng/mg cocaine (0.2 - 5) ng/mg Benzoyllecgonine (BZE) (0.05 - 5) ng/mg $\Delta^9$ -Tetrahydrocannabinol (THC) (0.1 - 10) ng/mg cannabinol (CBN) (0.1 - 10) ng/mg cannabidiol (CBN) (0.1 - 5) ng/mg Method of gas chromatography coupled with tandem mass spectrometry GC-MS/MS	ZN-POCH S.A. 304:2008 Edition 02 dated 23.10.2008

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## **List of changes Accreditation scope No AB 1015**

**Status of changes: Original version – A**