



Fecha de Calibración: 30/1/2026

Fecha de Emisión: 30/1/2026

SILQUINI S.R.L.
Pacheco 373

CERTIFICADO DE CALIBRACION N°: 254974

(54-0299) 477-4400
ventas@siliquini.com

Cliente:	GREEN OIL SERVICES SA	Equipo en uso:	CALIBRADO
Instrumento:	ALTAIR io4 PURCHASED, CONFIGURED Grupo: 8 - (Portable Instrument)	Equipo nuevo:	SI
S/N:	001E00100195009B	Fabricante:	Mine Safety Appliances Company

Gas Patrón	Objetivo a Verificar	Incert. del Gas	Número de Lote	Validez Gas	Mediciones			Error de medición	Incert. de la Medición	Rango
					1	2	3			
Acido Sulfhidrico (H2S) 20 ppm	20 ppm	10%	302988	31/12/2026	20	20	20	0,000	3 ppm	0-200ppm
					VM:20,000					
Metano (CH4) 1,45 %	58 %	5%	302988	31/12/2026	58	58	58	0,000	4 %	0-100%
					VM:58,000					
Monóxido de Carbono (CO) 60 ppm	60 ppm	5%	302988	31/12/2026	60	60	60	0,000	4 ppm	0-2000ppm
					VM:60,000					
Oxígeno (O2) 15 %	15 %	5%	302988	31/12/2026	15	15	15	0,000	0,9 %	0-30%
					VM:15,000					

ALARMAS

	Deficiency Alarm	Exposure Alarm	STEL Alar	TWA Alarm
H2S ppm	10 ppm	15 ppm	15 ppm	10 ppm
COMB	10 %	20 %	-	-
CO	25 ppm	100 ppm	100 ppm	25 ppm
O2	19.5 %	23.0 %	-	-

Calibración: Contraste con gas patrón trazable a patrones de peso NIST

Condiciones ambientales de Calibración: Cipolletti - Rjo Negro

Temperatura (°C) 25°C
Presión atmosférica (hPa): 1004 hPa
Humedad (%): 37 %

Procedimientos de Calibración: De acuerdo al manual de cada equipo

(*) Las especificaciones de tolerancia de medición se encuentran informadas en el manual del equipo.

"La calibración de los equipos, instrumentos y dispositivos utilizados, los métodos de análisis aplicados, y las acciones u omisiones son realizadas en forma exclusiva por personal de SILQUINI S.R.L. sin intervención de COMPAÑÍA MSA DE ARGENTINA S.A. quien no responderá por los mismos."

Límites en el uso: Indicados en el manual del equipo

Los resultados son válidos solamente para el equipo ensayado no siendo extensivos a cualquier otro.

La trazabilidad de los detectores MSA se realiza a través del número de serie

La reproducción de este documento sólo podrá hacerse íntegramente sin ninguna alteración.

Hugo Puente
SERVICIO TÉCNICO
SILQUINI S.R.L.



CERTIFICATE OF ANALYSIS

ISO 9001:2015 CERTIFIED
ISO 17034:2016 ACCREDITED
ISO/IEC 17025:2017 ACCREDITED

1202 E Sam Houston Parkway S,
Pasadena, TX 77503
Phone: (800) 548 2268 Fax: (713) 928 9961

PO Number: 4503688395
Manufactured For:
MSA Safety Sales, LLC
1000 Cranberry Woods Drive
Cranberry Township PA 16066
United States Of America

Work Order No: 42199100
Certification Date: 30-Dec-2024

Customer Part No: 10045035
Cylinder Size: 58mGAL
Cylinder Content: 58 L (2 CU.FT.) @ 70 F (21 C) & 500 PSIG (3445Kpag)
Cylinder Lot No: 302988; 395 of 503 cylinders
Cylinder Serial Nos:

Cylinder Type: ISO 7866

BC142061,BC189305,BC325407,BC339726,BC361462,BC387714,BC399067,BC399940,BC483
084,BC483181,BC483185,BC483205,BC486210,BC487038,BC506601,BC511492,BC519774,BC
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,BC695461,BC695462,BC695463,BC695466,BC695467

Expiration Date: Dec 2026

Component	Nominal (vol)	Accuracy	Analytical Method
HYDROGEN SULFIDE	20 PPM	+/- 10%	Automated Electrochemical Sensor 2.0
CARBON MONOXIDE	60 PPM	+/- 5%	Horiba CO Analyzer VIA-510_97KP6EHE
PENTANE EQUIVALENT 58% LEL	(METHANE 1.45%)	+/- 5%	Mocon 9000 THC_0317DN0931
OXYGEN	15%	+/- 5%	Teledyne 3000M Series Percent Oxygen Analyzer
NITROGEN	BALANCE		

The mixture was manufactured or transfilled from a standard which has been gravimetrically blended with traceability through NIST to the International System of Units (SI) balance. Balances are calibrated by a certified third party with certified NIST weights and NIST test numbers. **Report Number: BU70910-04302025.** The uncertainty is expressed as an expanded uncertainty $U=kuc$ with uc determined by experiment and a coverage factor $k=2$. The certified value $\pm U$ is presented with a level of confidence of approximately 95%.



Quality Assurance Manager