


Certificate of Calibration

Date of Issue: October 6, 2024		Page 1 of 1
REF NUMBER : By Contract	 APPROVED BY CALIBRATION IN CHARGE QC	
Job No # : QC/JN/24/00376		
CERTIFICATE NUMBER : QC241006-01		

CUSTOMER DETAILS

Name : Honghua Oil & Gas Engineering Services Limited
Rig : Iraq , Basra, HH029

EQUIPMENT IDENTIFICATION AND SPECIFICATIONS

Description	: Fixed H2S/LEL Gas Detection System	H2S S/N	LEL S/N	Location
Manufacturer	: MSA	a-04/19-09279	a-07/23-09788	Cellar
Model	: 9020/9010	a-04/19-09277	a-06/19-24263	Bell Nipple
Serial Number for H2S Panel	: J190413870	a-07/23-09740	a-06/19-24267	Rig Floor
Type	: Digital	a-07/23-09794	a-02/22-14521	Shale Shaker
Calibrated Range	: 50 PPM H2S 50% LEL			
Resolution	: 1 ppm And 1 %			
Calibrated By	: Asjad Rafiq			
Calibration Date	: October 6, 2024			
Calibration Due	: January 5, 2025 3 Months Validity from the date of Calibration			
Calibration Site	: HH029			



ENVIRONMENTAL CONDITIONS DURING TEST

Ambient Temperature	: 25 °C	±	2 °C
Relative Humidity	: 40 %RH	±	5 %RH

CALIBRATION METHOD

A reference cylinder consisting of composition gases (LEL, H2S) is used , which are detected by gas detector by diffusion.

TRACEABILITY

The measurements made by Quality Control are traceable to NIST, vide Arabian Gases & Bristol Gases Certificate of Analysis
The measurements made by Quality Control, realize the physical units of measurements (SI), through its state of the art calibration standards that are controlled and maintained by QC.

REFERENCE EQUIPMENT USED :

DESCRIPTION	CYLINDER SERIAL NO.	MAKE	GAS EXPIRY DATE
Multi Gas Cylinder	WO465037-3	CALGAZ	8-Jan-2026

CALIBRATION TEST RESULTS

Applied Gas	Values of UUC	Values on Reference Standard	Error in Reading of UUC	Uncertainty of Measurement
Methane(LEL)% (Cellar)	50	50	0	± 1
Methane(LEL)% (Bell Nipple)	49	50	-1	± 1
Methane(LEL)% (Rig Floor)	50	50	0	± 1
Methane(LEL)% (Shale Shaker)	51	50	1	± 1
H2S PPM (Cellar)	25	25	0	± 1
H2S PPM (Bell Nipple)	24	25	-1	± 1
H2S PPM (Rig Floor)	25	25	0	± 1
H2S PPM (Shale Shaker)	25	25	0	± 1

Alarms Detail		
H2S	5 PPM (Light Only)	10 PPM (Audible)
LEL	20% LEL(Audible)	
NOTE: All alarms were tested and found OK.		

Results :

The above Value Indicates That the Instrument complies with the Specified Maximum Permissible error tolerance.
At The Time of Calibration. and ready for use.