CERTIFICATE OF CALIBRATION

Company: TEXAS A&M UNIVERSITY
This document certifies that the below listed product has been calibrated to manufacturer's standards using Certified Reference Materials and Reference Materials.

Model: TRACER 5g
Serial No: 900G7838
Date Calibrated: AUGUST 21, 2020

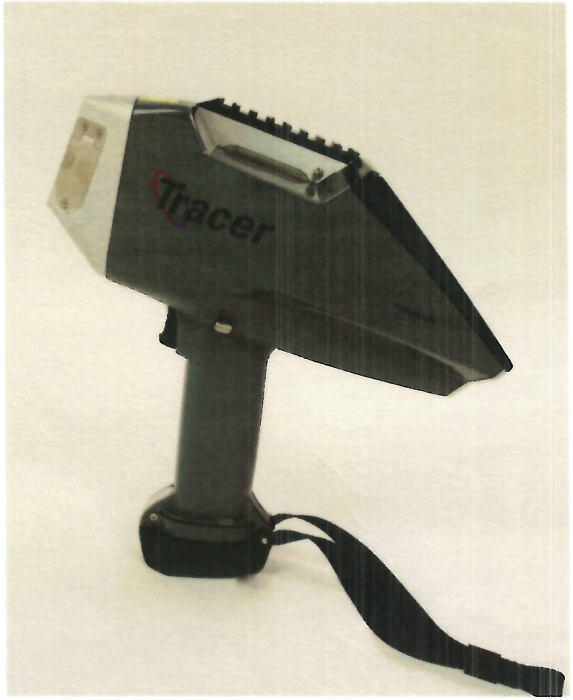
Certified by:

BRUKER HANDHELD, LLC
HMP Business Unit
CERTIFIED
Quality - Performance - Innovation

Bruker Handheld, LLC. | 415 N. Quay Street | Kennewick, WA 99336 USA | sales.hmp@bruker.com

Tracer 5 Precious Metals Check Sample Report

Date of Report: August 19, 2020
Instrument Serial Number: 900G7838
Sample: Silver Round



Measurement	Cu	Ag
1	6.89	93.11
2	6.85	93.15
3	6.87	93.13
4	6.86	93.14
5	6.88	93.12
6	6.84	93.16
7	6.85	93.15
8	6.87	93.13
9	6.86	93.14
10	6.86	93.15

Average Measured Value	**6.862**	**93.138**
Standard Deviation	0.017	0.017
Acceptance Limit MIN	**6.777**	**93.052**
Acceptance Limit MAX	**6.948**	**93.223**

General instrument performance may be checked by taking a measurement of the supplied silver sample. The measured value for each element should be within the acceptance limits shown above. If not, contact Bruker for support. Email: service.hmp@bruker.com.

Measurement values are in Weight Percent (%)

**Use the following configuration to check instrument performance:*

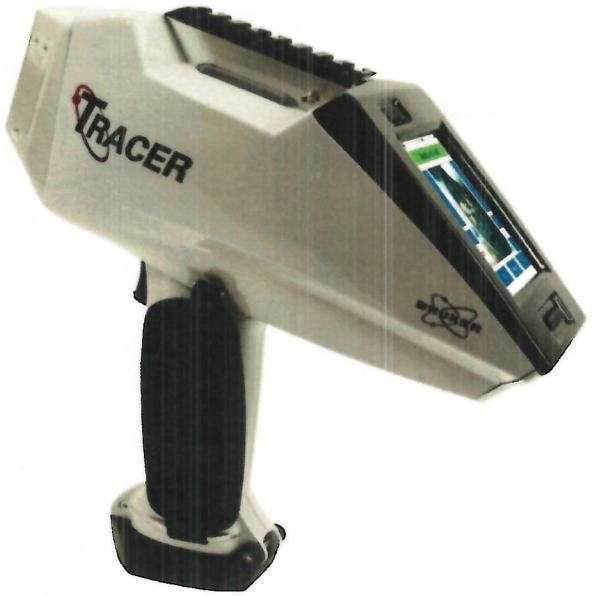
APPLICATION:	*Precious Metals 2*
METHOD:	*PrecMetals*
SETTINGS:	*15 seconds*

Tracer5 GeoExploration Check Sample Report

Date of Report: August 19, 2020
Instrument Serial Number: 900G7226
Sample: CS-M2

Measurement	Al2O3	K2O	Ca	Mn	Fe	Cu	Pb
1	10.27	4.63	0.60	0.105	1.61	0.0202	0.0816
2	10.11	4.62	0.59	0.107	1.62	0.0191	0.0806
3	10.50	4.63	0.60	0.108	1.60	0.0205	0.0813
4	10.07	4.63	0.60	0.107	1.62	0.0206	0.0786
5	10.29	4.65	0.59	0.108	1.60	0.0201	0.0818
6	10.40	4.64	0.59	0.105	1.62	0.0198	0.0825
7	10.37	4.64	0.60	0.102	1.62	0.0214	0.0788
8	10.24	4.62	0.60	0.107	1.61	0.0207	0.0791
9	10.52	4.61	0.60	0.104	1.61	0.0215	0.0818
10	10.35	4.61	0.61	0.106	1.61	0.0210	0.0809

Average Measured Value	**10.31**	**4.63**	**0.60**	**0.106**	**1.61**	**0.0205**	**0.0807**
Standard Deviation	0.15	0.01	0.01	0.002	0.01	0.0007	0.0014
Acceptance Limit MIN	**9.28**	**4.40**	**0.54**	**0.092**	**1.50**	**0.0154**	**0.0710**
Acceptance Limit MAX	**11.34**	**4.86**	**0.65**	**0.120**	**1.72**	**0.0256**	**0.0904**



General instrument performance may be checked by taking a measurement of the supplied CS-M2 sample. The measured value for each element should be within the acceptance limits shown above. If not, contact Bruker for support. Email: service.hmp@bruker.com.*

Measurement values are in Weight Percent (%)

**Use the following configuration to check instrument performance:*

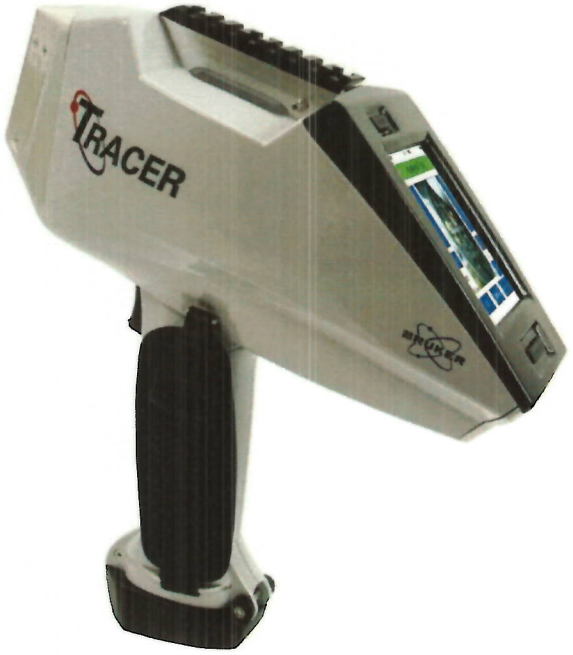
APPLICATION:	*GeoExploration*
METHOD:	*Oxide3phase*
SETTINGS:	*3 Phase : 20 seconds each*

Tracer 5 MudRock He Check Sample Report

Date of Report: August 19, 2020
Instrument Serial Number: 900G7838
Sample: MudRock

Measurement	Al	P	Ca	Fe	Cu	Zn	Rb	Sr
1	4.57	5.90	0.70	0.235	0.01	0.045	0.036	0.011
2	4.60	5.92	0.70	0.230	0.01	0.045	0.036	0.011
3	4.58	5.91	0.71	0.232	0.01	0.045	0.036	0.011
4	4.58	5.94	0.71	0.232	0.01	0.046	0.035	0.011
5	4.56	5.92	0.70	0.231	0.01	0.044	0.036	0.011
6	4.56	5.87	0.70	0.232	0.01	0.046	0.036	0.011
7	4.58	5.89	0.70	0.230	0.01	0.046	0.036	0.011
8	4.60	5.91	0.70	0.232	0.01	0.045	0.036	0.011
9	4.56	5.89	0.70	0.233	0.01	0.046	0.036	0.011
10	4.56	5.89	0.70	0.235	0.01	0.045	0.034	0.011

Average Measured Value	**4.576**	**5.90**	**0.70**	**0.232**	**0.010**	**0.045**	**0.036**	**0.011**
Standard Deviation	0.016	0.019	0.003	0.002	0.000	0.001	0.001	0.000
Acceptance Limit MIN	**4.039**	**5.22**	**0.61**	**0.192**	**0.005**	**0.036**	**0.026**	**0.008**
Acceptance Limit MAX	**5.113**	**6.59**	**0.80**	**0.273**	**0.015**	**0.055**	**0.045**	**0.014**



General instrument performance may be checked by taking a measurement of the supplied check sample. The measured value for each element should be within the acceptance limits shown above. If not, contact Bruker for support. Email: support.hmp@bruker.com.*

Measurement values are in Weight Percent (%)

**Use the following configuration to check instrument performance:*

APPLICATION:	*MudRock He***
METHOD:	*MudRock He***
SETTINGS:	*30 secons Phase 1, 60 seconds Phase 2*

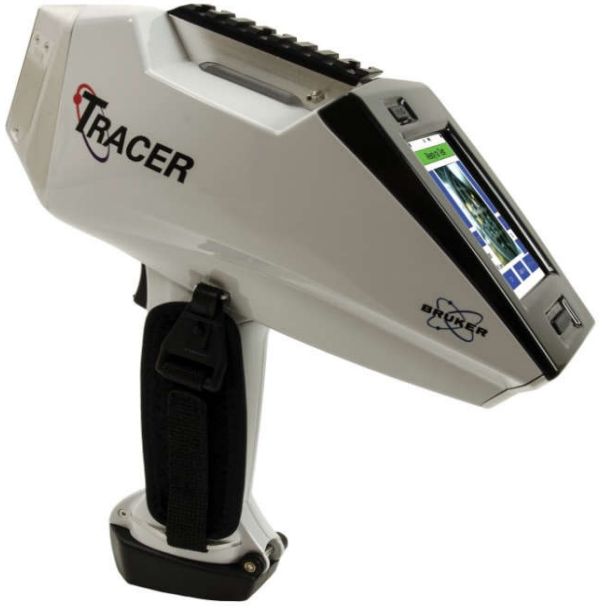
***Make sure the He flow set up is used for these measurements*

Tracer 5 Limestone Check Sample Report

Date of Report: December 6, 2022
Instrument Serial Number: 900G7838
Sample: Limestone

Measurement	Al2O3	SiO2	CaCO3	Fe2O3
1	0.167	0.282	99.461	0.063
2	0.156	0.318	99.442	0.059
3	0.159	0.306	99.441	0.065
4	0.160	0.281	99.463	0.064
5	0.152	0.302	99.459	0.060
6	0.167	0.288	99.450	0.063
7	0.167	0.297	99.441	0.063
8	0.165	0.296	99.455	0.058
9	0.148	0.278	99.476	0.065
10	0.162	0.312	99.444	0.057

Average Measured Value	**0.160**	**0.000**	**99.453**	**0.062**
Standard Deviation	0.007	0.000	0.012	0.003
Acceptance Limit MIN	**0.127**	**0.000**	**97.000**	**0.048**
Acceptance Limit MAX	**0.194**	**0.000**	**99.512**	**0.075**



General instrument performance may be checked by measuring the check sample as described below (Note: measurements must be made on the smooth surface). The sample should be centered on the window to avoid variation from heterogeneity. The measured value for each element should be within the acceptance limits shown above. If not, contact Bruker for support. Email: service.hmp@bruker.com.

Measurement values are in Weight Percent (%)

**Use the following configuration to check instrument performance:*

APPLICATION:	*Limestone*
METHOD:	*Limestone*
SETTINGS:	*Phase 1: 120 seconds*

CERTIFICATE OF CALIBRATION

Company: TEXAS A&M UNIVERSITY
This document certifies that the below listed product has been calibrated to manufacturer's standards using Certified Reference Materials and Reference Materials.

Model: TRACER 5G
Serial No: 900G7838
Date Calibrated: JUANUARY 9, 2022

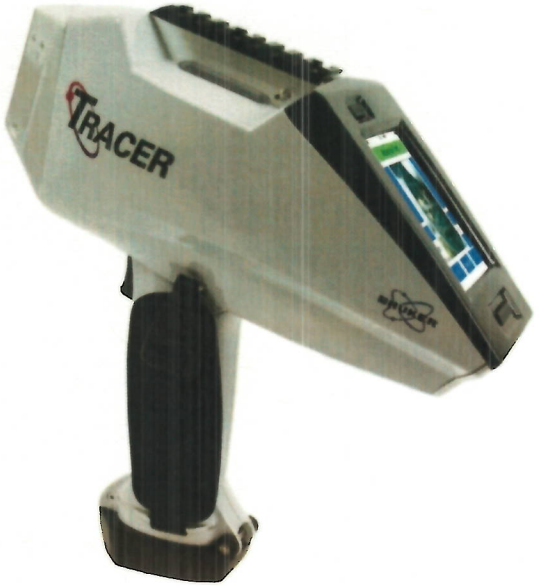
Certified by:

BRUKER HANDHELD, LLC
HMP Business Unit
CERTIFIED
Quality - Performance - Innovation

Bruker Handheld, LLC. | 415 N. Roosevelt Street | Kennewick, WA 99336 USA | sales.hmp@bruker.com

Tracer 5 MudRock Air Check Sample Report

Date of Report: January 9, 2022
Instrument Serial Number: 900G7838
Sample: MudRock



Measurement	Al	P	Ca	Fe	Cu	Zn	Rb	Sr
1	4.12	6.79	0.71	0.263	0.01	0.049	0.038	0.011
2	4.13	6.81	0.71	0.252	0.01	0.049	0.038	0.011
3	4.12	6.83	0.71	0.249	0.01	0.049	0.037	0.011
4	4.11	6.83	0.71	0.260	0.01	0.049	0.037	0.011
5	4.11	6.81	0.72	0.255	0.01	0.048	0.037	0.011
6	4.12	6.79	0.71	0.255	0.01	0.048	0.037	0.011
7	4.06	6.79	0.72	0.254	0.01	0.048	0.038	0.011
8	4.13	6.77	0.71	0.255	0.01	0.049	0.037	0.011
9	4.13	6.79	0.72	0.254	0.01	0.049	0.036	0.011
10	4.04	6.78	0.71	0.259	0.01	0.049	0.038	0.011

Average Measured Value	**4.107**	**6.80**	**0.71**	**0.255**	**0.010**	**0.049**	**0.037**	**0.011**
Standard Deviation	0.032	0.020	0.002	0.004	0.000	0.000	0.000	0.000
Acceptance Limit MIN	**3.539**	**6.02**	**0.62**	**0.189**	**0.004**	**0.040**	**0.029**	**0.008**
Acceptance Limit MAX	**4.676**	**7.58**	**0.81**	**0.322**	**0.016**	**0.057**	**0.046**	**0.014**

General instrument performance may be checked by taking ten measurements of the supplied check sample and then calculating the average measured values. The average measured value for each element should be within the acceptance limits shown above. If not, contact Bruker for support. Email: support.hmp@bruker.com. The side with the "O" should face instrument.*

Measurement values are in Weight Percent (%)

**Use the following configuration to check instrument performance:*

APPLICATION:	*MudRock Air*
METHOD:	*MudRock Air*
SETTINGS:	*30 secons Phase 1, 60 seconds Phase 2*