

# PROYECTO DE INVESTIGACIÓN ARQUEOLÓGICA “ARTE RUPESTRE DEL RIO LOCO, ANCASH, PERÚ”



## Resultados de los análisis realizados a las muestras exportadas en el 2018

Carmen Pérez Maestro RNA: CP-9730

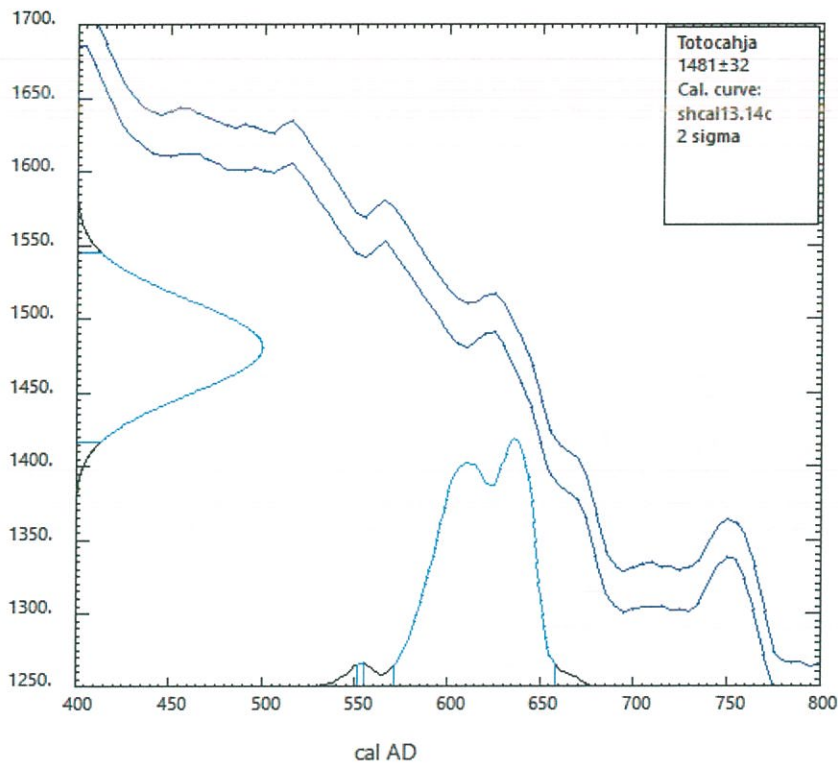
Alexander Herrera Wassilowski RNA: AH-9903

### Informe de Datación y Calibración

Código de muestra: Totocahja	4907.1.1
Tratamiento aplicado: Limpieza Ácido-Base-Ácido.	
Edad de Radiocarbono convencional	1480 ± 30 BP
pM	83.16 ± 0.33
d <sup>13</sup> C	-24.11 ± 1.50 ‰

Calibración 2σ (95% probabilidad):	[cal AD 552: cal AD 556] 0.005149
[Comienzo:Fin] Área relativa	[cal AD 572: cal AD 658] 0.994851

Radiocarbon Age vs. Calibrated Age



Francisco Javier  
Santos Arévalo



Isabel  
Gómez Martínez

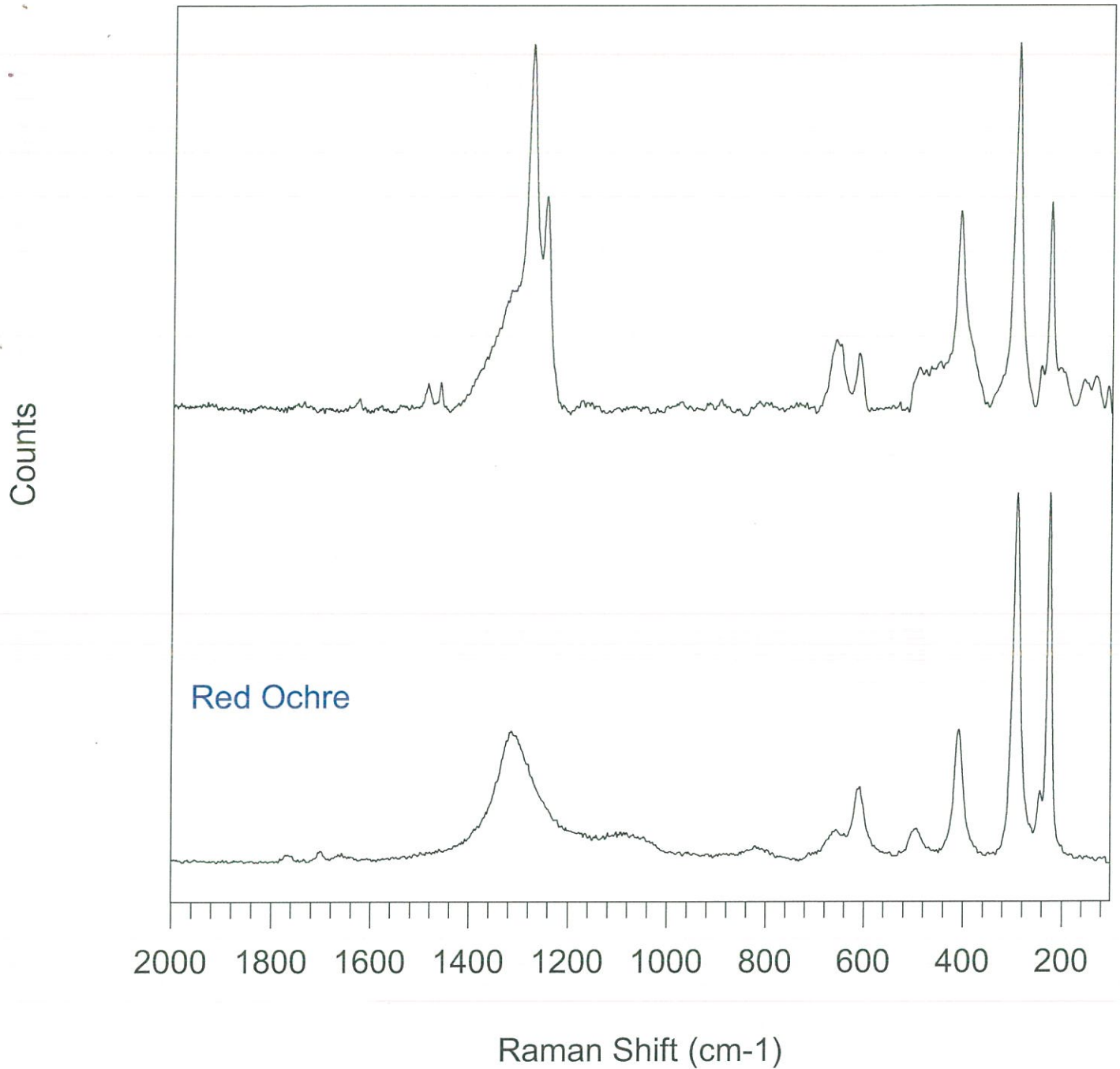


CALIB RADIOCARBON CALIBRATION PROGRAM\* Calib 7.0 Copyright 2013 M Stuiver and PJ Reimer  
IntCal13 and MARINE13 radiocarbon age calibration curves 0-50000 years calBP Radiocarbon  
55(4). DOI: 10.2458/azu\_js\_rc.55.16947

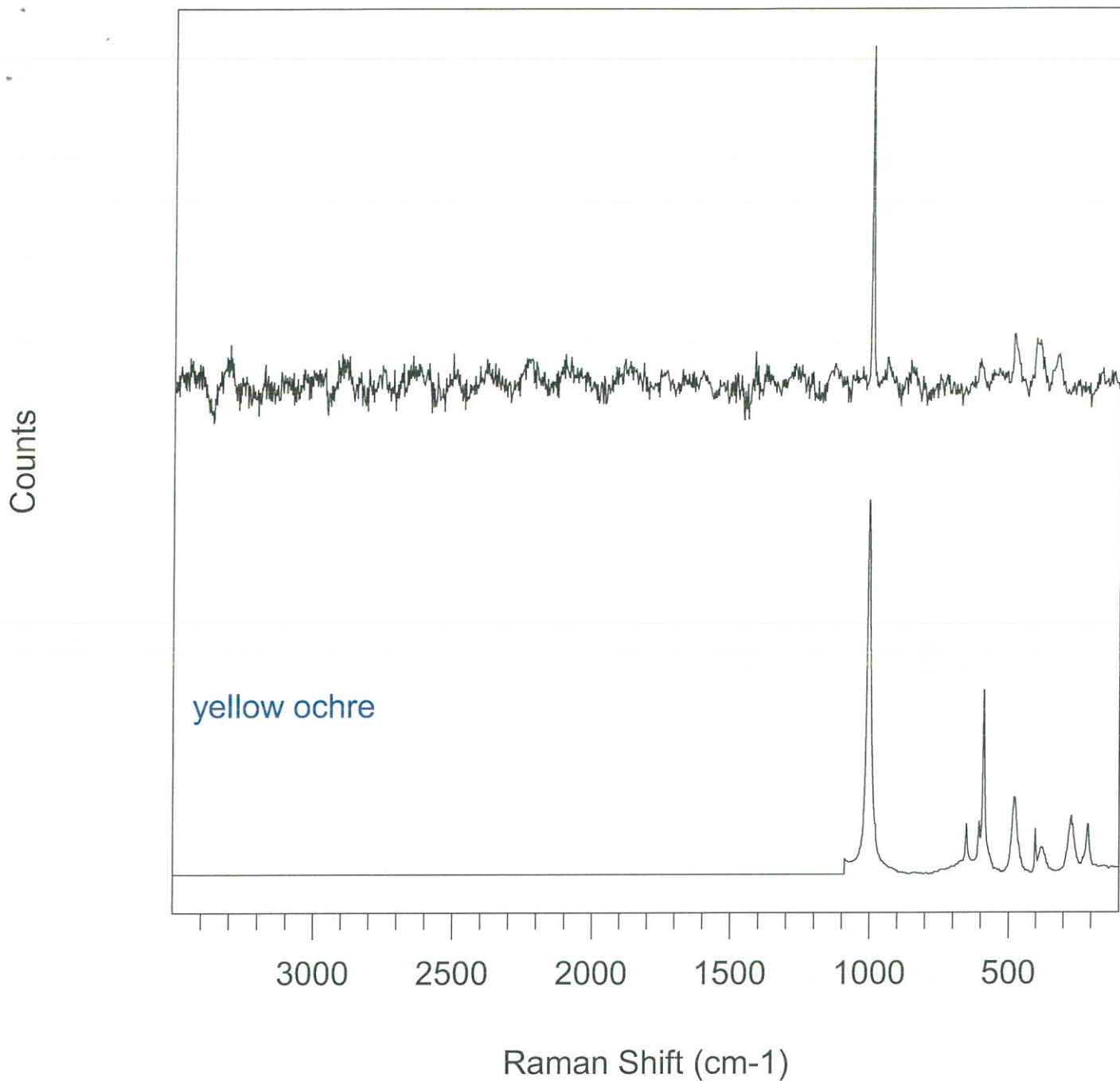
#### Centro Nacional de Aceleradores

Avd Thomas Alva Edison, nº 7, 41092, Sevilla, España • Tel: +34 954 46 05 53 • Fax: +34 954 46 01 45  
<http://www.centro.us.es/cna> • E-Mail: cna@us.es

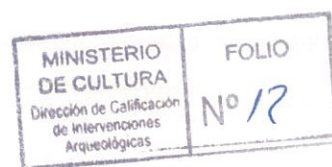
Fecha generación informe: 15/04/2019

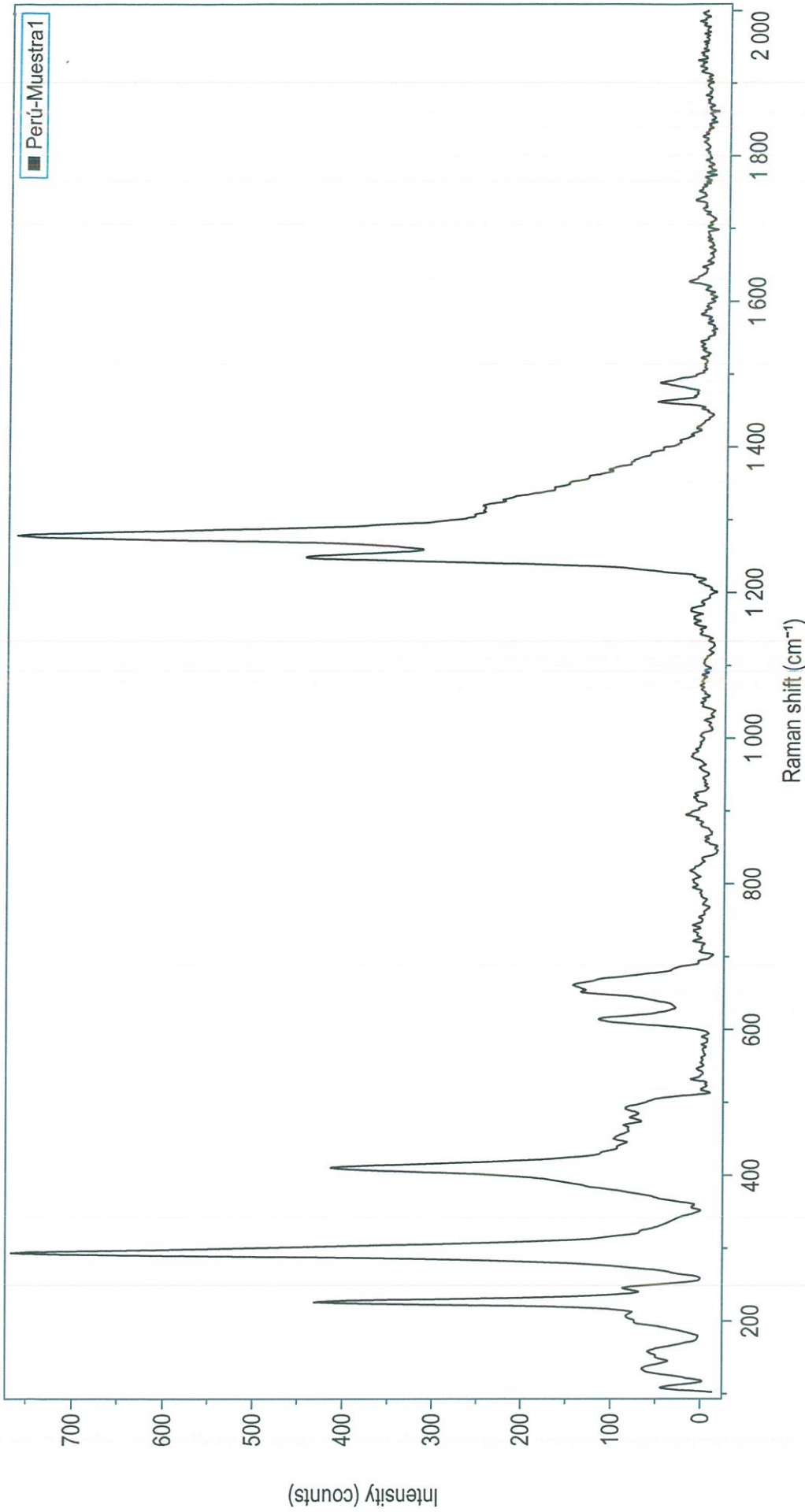


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3	0.374806 Red Ochre	ForensicV2.lib
4	0.428373 Silotrans red	forensicv2.lib
5	0.428373 Silotrans red	forensicv2.lib
6	0.428373 Silotrans red	ForensicV2.lib
7	0.512315 Burnt Sienna	forensicv2.lib
8	0.512315 Burnt Sienna	forensicv2.lib
9	0.512315 Burnt Sienna	ForensicV2.lib
10	0.522623	forensicv2.lib



Hit #	Quality [Memo]	Library
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3	0.784385 PS	ForensicV2.lib
4	0.797941 yellow ochre	forensicv2.lib
5	0.797941 yellow ochre	forensicv2.lib
<b>6</b>	<b>0.797941</b> <b>yellow ochre</b>	<b>ForensicV2.lib</b>
7	0.842329 Celestine320	forensicv2.lib
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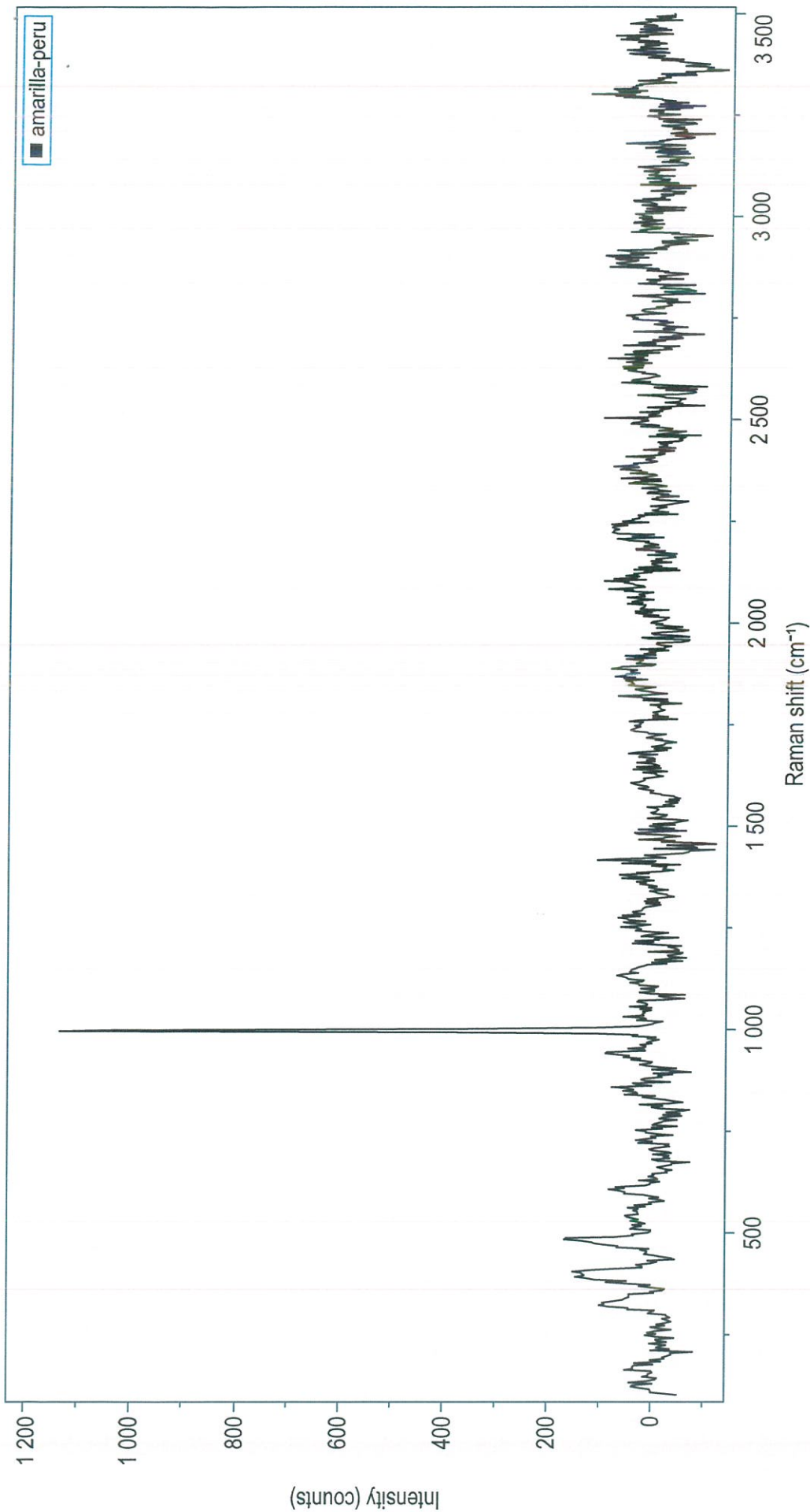


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Spectro (cm <sup>-1</sup> )		Hole	100	Slit	50	Grating	2400
Filter	25%	Objective	50x/0.80 NIR	ICS correction	Off	Range (cm <sup>-1</sup> )	

**HORIBA**  
Scientific

04.06.2019 09:45

1/1



**HORIBA**  
Scientific

Date	05.06.2019 09:00	Acq. time (s)	9	Accumulations	7	Laser	532
Spectro (cm <sup>-1</sup> )		Hole	100	Slit	100	Grating	1800
Filter	100%	Objective	50x/0.80 NIR	ICS correction	Off	Range (cm <sup>-1</sup> )	

MINISTERIO DE CULTURA  
Dirección de Calificación de intervenciones Arqueológicas

FOLIO  
Nº 10

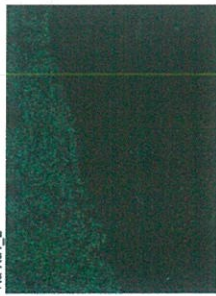
06.06.2019 12:50



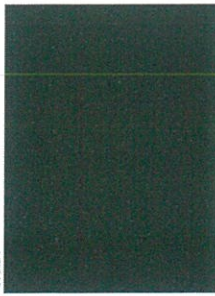
C Kα1\_2



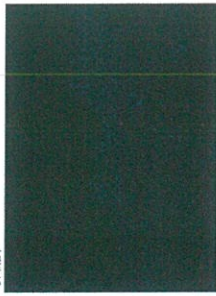
Na Kα1\_2



Si Kα1



Cl Kα1



Ca Kα1



O Kα1



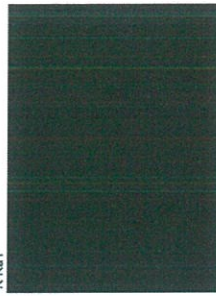
Al Kα1



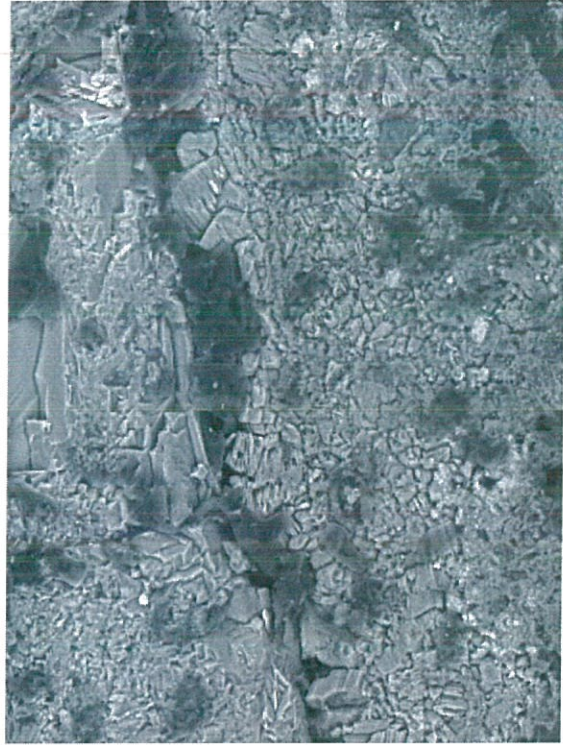
S Kα1



K Kα1



Fe Kα1



Electron Image 1

100µm

Comment:amarilliz



Spectrum processing :

No peaks omitted

Processing option : All elements analyzed (Normalised)

Number of iterations = 5

Standard :

C CaCO3 1-Jun-1999 12:00 AM

O SiO2 1-Jun-1999 12:00 AM

Na Albite 1-Jun-1999 12:00 AM

Al Al2O3 1-Jun-1999 12:00 AM

Si SiO2 1-Jun-1999 12:00 AM

S FeS2 1-Jun-1999 12:00 AM

Cl KCl 1-Jun-1999 12:00 AM

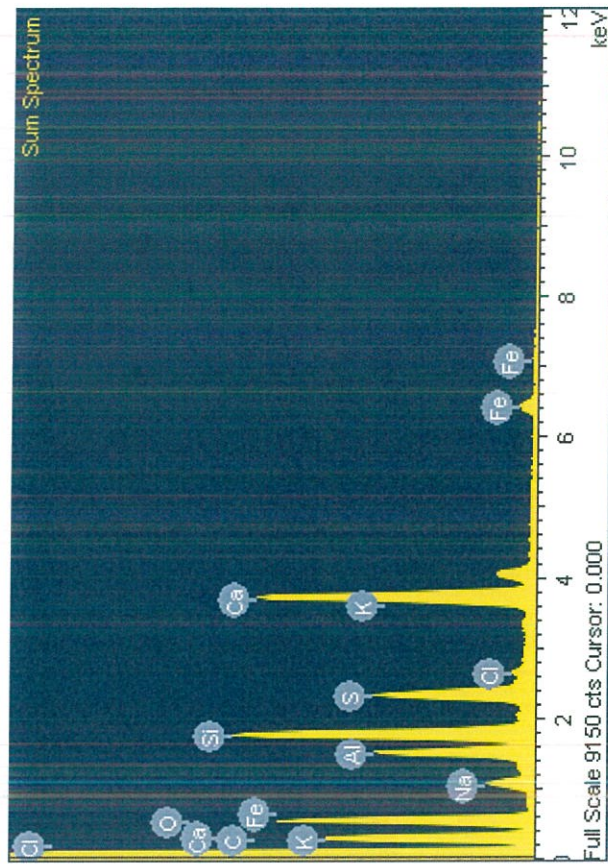
K MAD-10 Feldspar 1-Jun-1999 12:00 AM

Ca Wollastonite 1-Jun-1999 12:00 AM

Fe Fe 1-Jun-1999 12:00 AM

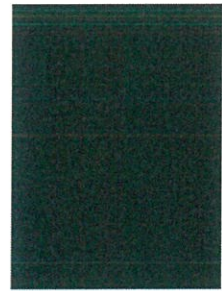
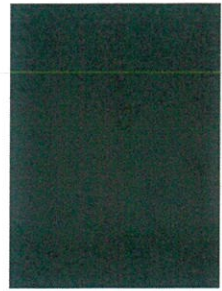
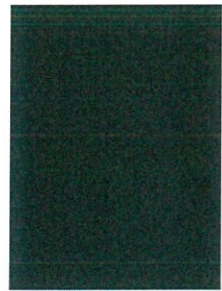
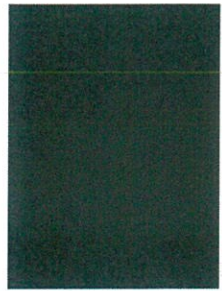
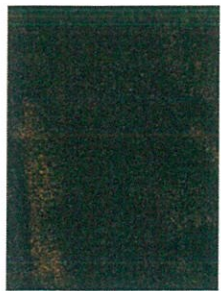
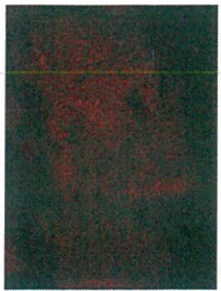
Element	App	Intensity	Weight%	Weight%	Atomic%
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Comment:





	Conc.	Corrn.	Sigma	Sigma
C K	38.29	0.4751	32.80	1.67 45.09
O K	48.20	0.4925	39.81	1.03 41.08
Na K	3.07	0.7977	1.56	0.07 1.12
Al K	6.57	0.8406	3.18	0.10 1.95
Si K	14.31	0.8826	6.60	0.18 3.88
S K	9.04	0.9071	4.05	0.12 2.09
Cl K	0.65	0.7773	0.34	0.04 0.16
K K	0.38	1.0441	0.15	0.03 0.06
Ca K	24.05	0.9732	10.05	0.27 4.14
Fe K	2.84	0.7981	1.45	0.08 0.43
Totals			100.00	



MINISTERIO DE CULTURA  
Dirección de Calificación de Intervenciones Arqueológicas  
FOLIO Nº 06

Comment:amarillo3



Spectrum processing :

No peaks omitted

Processing option : All elements analyzed (Normalised)

Number of iterations = 6

Standard :

C CaCO3 1-Jun-1999 12:00 AM

O SiO2 1-Jun-1999 12:00 AM

Na Albite 1-Jun-1999 12:00 AM

Al Al2O3 1-Jun-1999 12:00 AM

Si SiO2 1-Jun-1999 12:00 AM

S FeS2 1-Jun-1999 12:00 AM

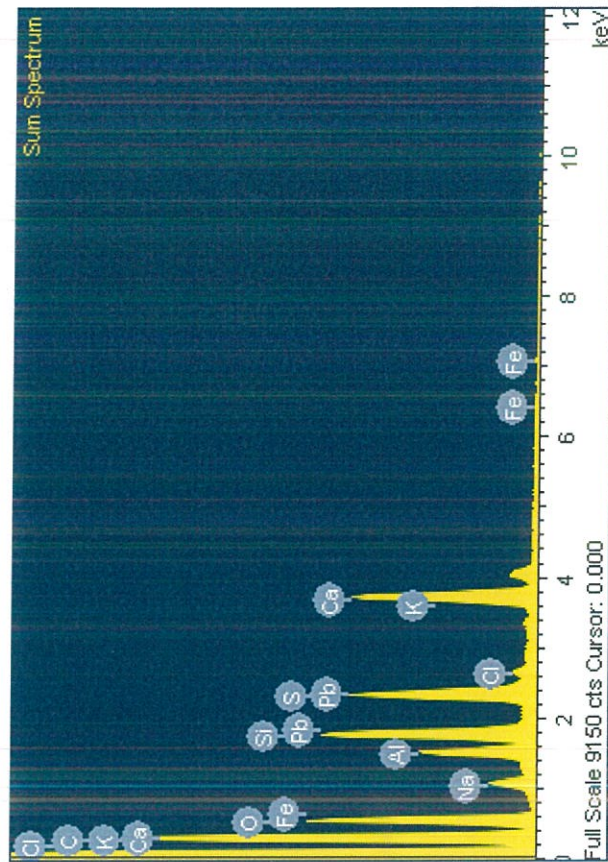
Cl KCl 1-Jun-1999 12:00 AM

K MAD-10 Feldspar 1-Jun-1999 12:00 AM

Ca Wollastonite 1-Jun-1999 12:00 AM

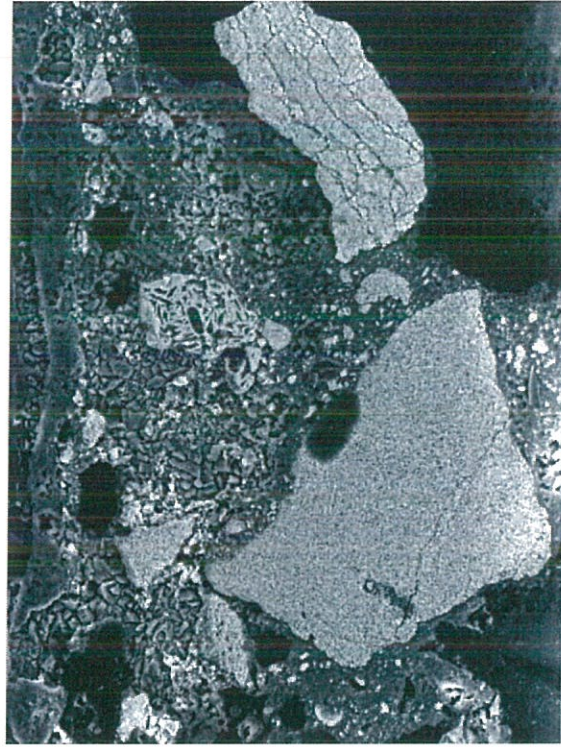
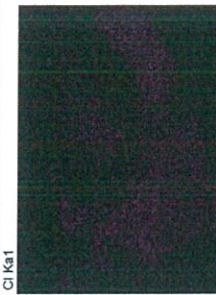
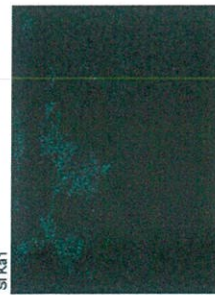
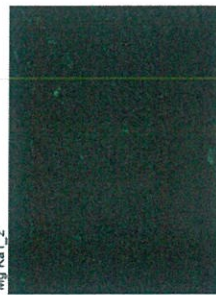
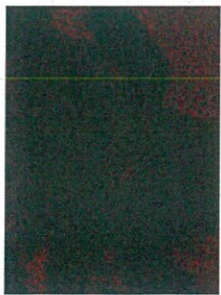
Fe Fe 1-Jun-1999 12:00 AM

Pb PbF2 1-Jun-1999 12:00 AM



Comment:

Element	App	Intensity	Weight%	Weight%	Atomic%
	Conc.	Corrn.		Sigma	
C K	93.73	0.6055	49.42	1.04	61.25
O K	45.65	0.4410	33.05	0.73	30.75
Na K	3.24	0.8470	1.22	0.05	0.79
Al K	5.11	0.8685	1.88	0.06	1.04
Si K	10.91	0.9160	3.80	0.09	2.02
S K	11.05	0.9373	3.76	0.10	1.75
Cl K	1.02	0.7882	0.41	0.03	0.17
K K	0.41	1.0351	0.13	0.03	0.05
Ca K	17.21	0.9664	5.69	0.13	2.11
Fe K	0.37	0.7883	0.15	0.05	0.04
Pb M	1.29	0.8313	0.49	0.16	0.04
Totals			100.00		



Electron Image 1

MINISTERIO DE CULTURA Dirección de Calificación de Intervenciones Arqueológicas	FOLIO N° 03
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Comment: rojo2



Spectrum processing :

No peaks omitted

Processing option : All elements analyzed (Normalised)

Number of iterations = 5

Standard :

C CaCO3 1-Jun-1999 12:00 AM

O SiO2 1-Jun-1999 12:00 AM

Mg MgO 1-Jun-1999 12:00 AM

Si SiO2 1-Jun-1999 12:00 AM

P GaP 1-Jun-1999 12:00 AM

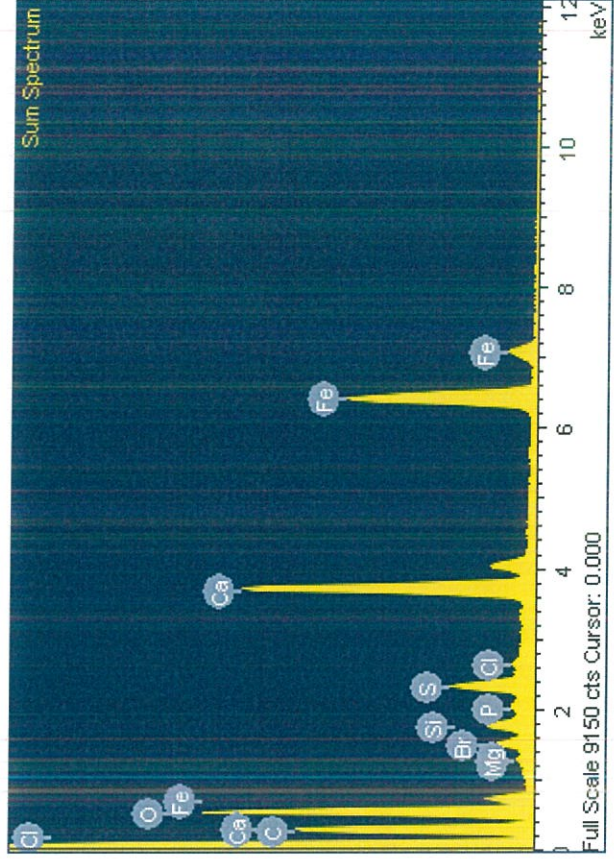
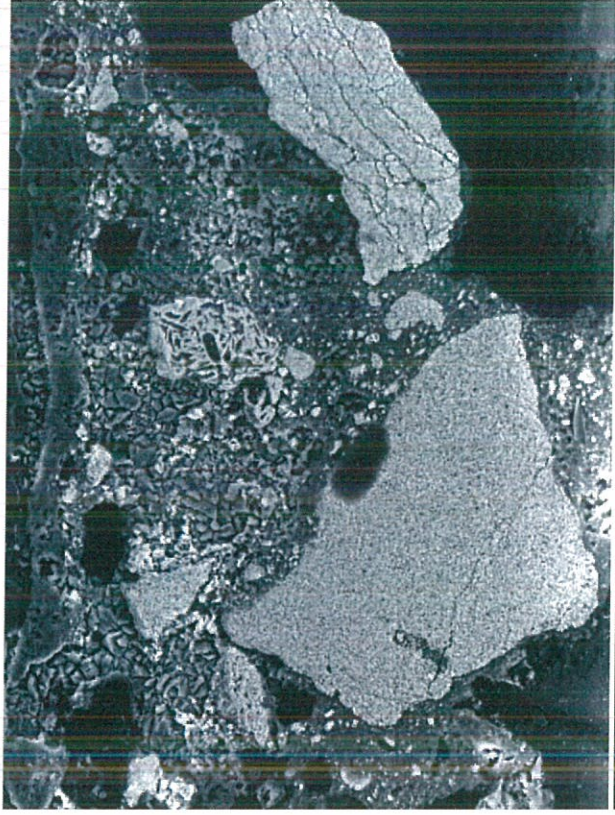
S FeS2 1-Jun-1999 12:00 AM

Cl KCl 1-Jun-1999 12:00 AM

Ca Wollastonite 1-Jun-1999 12:00 AM

Fe Fe 1-Jun-1999 12:00 AM

Br KBr 1-Jun-1999 12:00 AM



MINISTERIO DE CULTURA  
 Dirección de Calificación de intervenciones Arqueológicas

FOLIO  
 N° 02

Element	App	Intensity	Weight%	Weight%	Atomic%

Comment:

	Conc.	Corrn.	Sigma	
C K	42.64	0.6405	27.53	0.47
O K	58.35	0.6099	39.56	0.38
Mg K	0.22	0.6017	0.15	0.04
Si K	1.49	0.8153	0.76	0.04
P K	0.52	1.2207	0.18	0.04
S K	3.96	0.9262	1.77	0.05
Cl K	0.39	0.8135	0.20	0.04
Ca K	24.53	1.0230	9.92	0.12
Fe K	37.62	0.8272	18.80	0.21
Br L	1.79	0.6485	1.14	0.08
Totals			100.00	