

Volatile budget of Tenerife phonolites inferred from textural zonation of S-rich haüyne
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Supplemental Material

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1. Sample Data

Supplemental Table 1. Detailed information about the Tenerife samples used in this study

Sample	Eruptive Unit	Latitude ²	Longitude ²	Geographic	Type
TFE-12-031	Arico ¹	28.112° N	16.434° W	outside town of Poris	pumice clasts ³
TFE-12-043	El Abrigo ¹	28.034° N	16.573° W	leveled site south of airport	pumice clasts ⁴

¹Both eruptions are mixed magma eruptions

²Based on the UTM grid (WGS84), zone 28

³Several clasts 5-8 cm in diameter

⁴One clast 12 cm along the long axis

2. Detailed Analytical Methods

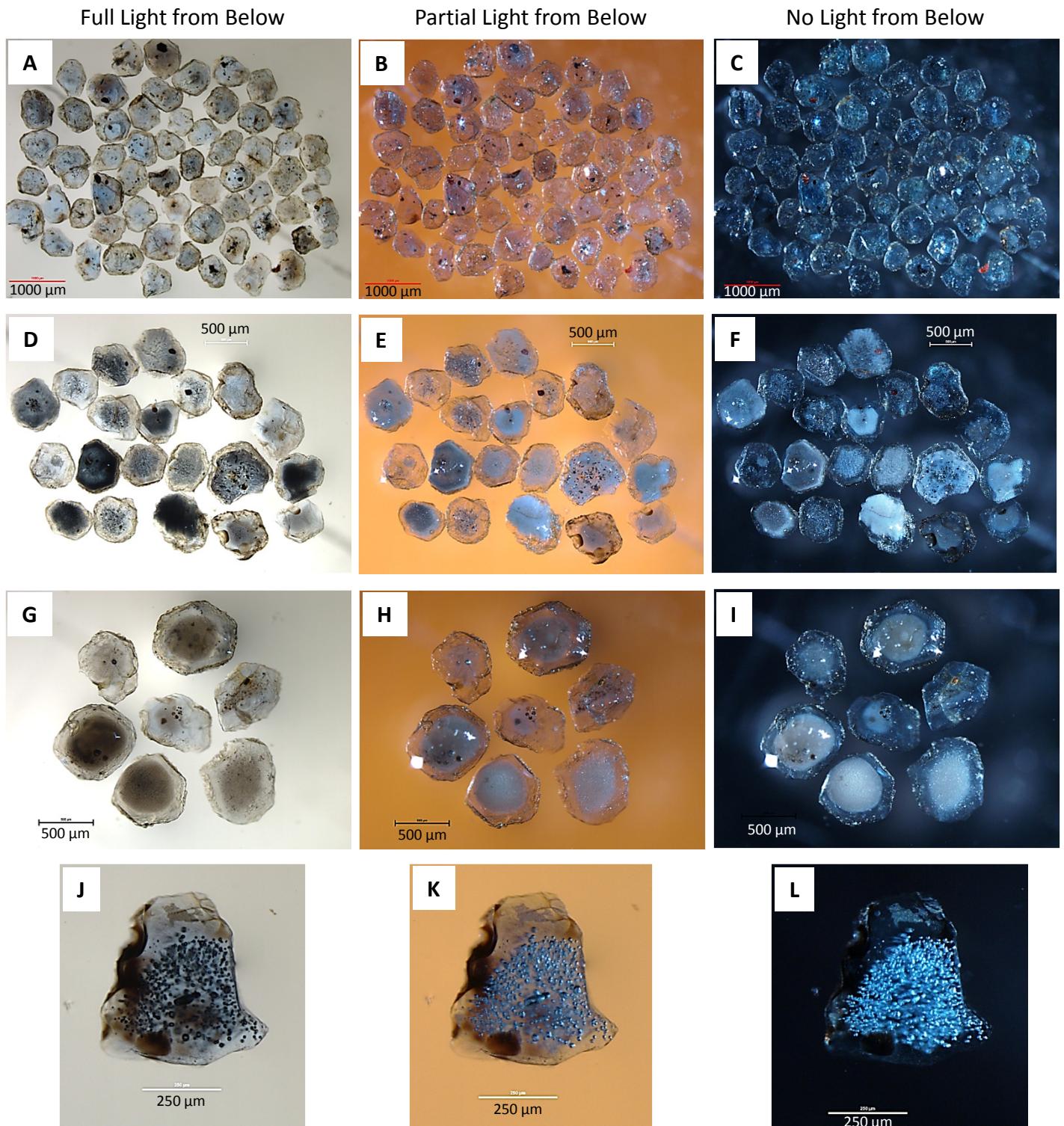
All work related to this study was carried out at ETH-Zurich. Transmitted light photos were taken both pre-polishing, while the grains were submerged in mineral oil, with a Nikon SMZ1500 stereomicroscope (with light from both above and below the sample); and post-polishing, after the grains were mounted in epoxy, with a Nikon Eclipse E600 POL petrographic

microscope. For the former, by adjusting the light from below the sample, one can see the morphology of gas-dominated fluid inclusions and vapor bubbles within melt inclusions. Backscatter images of haüyne phenocrysts were acquired by both SEM (JEOL, model JSM 6300F) and EPMA (JEOL, model JXA-8200). To avoid Na-loss and damage to the haüyne surface, special beam conditions were invoked. The SEM was run with a 10 keV accelerating voltage and a 2-4 nA beam current. The EPMA was run with a 15 keV accelerating voltage and a 7.5 nA beam current. Clean haüyne zones were analyzed by WDS on the EPMA using a 20 micron spot size and the setup in Supplemental Table 2. Melt inclusions and Fe-sulfide inclusions within haüyne were analyzed by EDS on the EPMA with scan mode at very high magnification (e.g., 300,000x). X-ray maps of haüyne phenocrysts were generated by EPMA with a pixel size of 0.3 microns and a dwell time of 190 msec. Gas inclusions were analyzed by micro-Raman spectroscopy (DILOR Labram, equipped with an Olympus microscope and an external Ar-ion laser with an excitation wavelength of 514.5 nm).

Supplemental Table 2. Spectrometer setup for the analysis of haüyne by EPMA

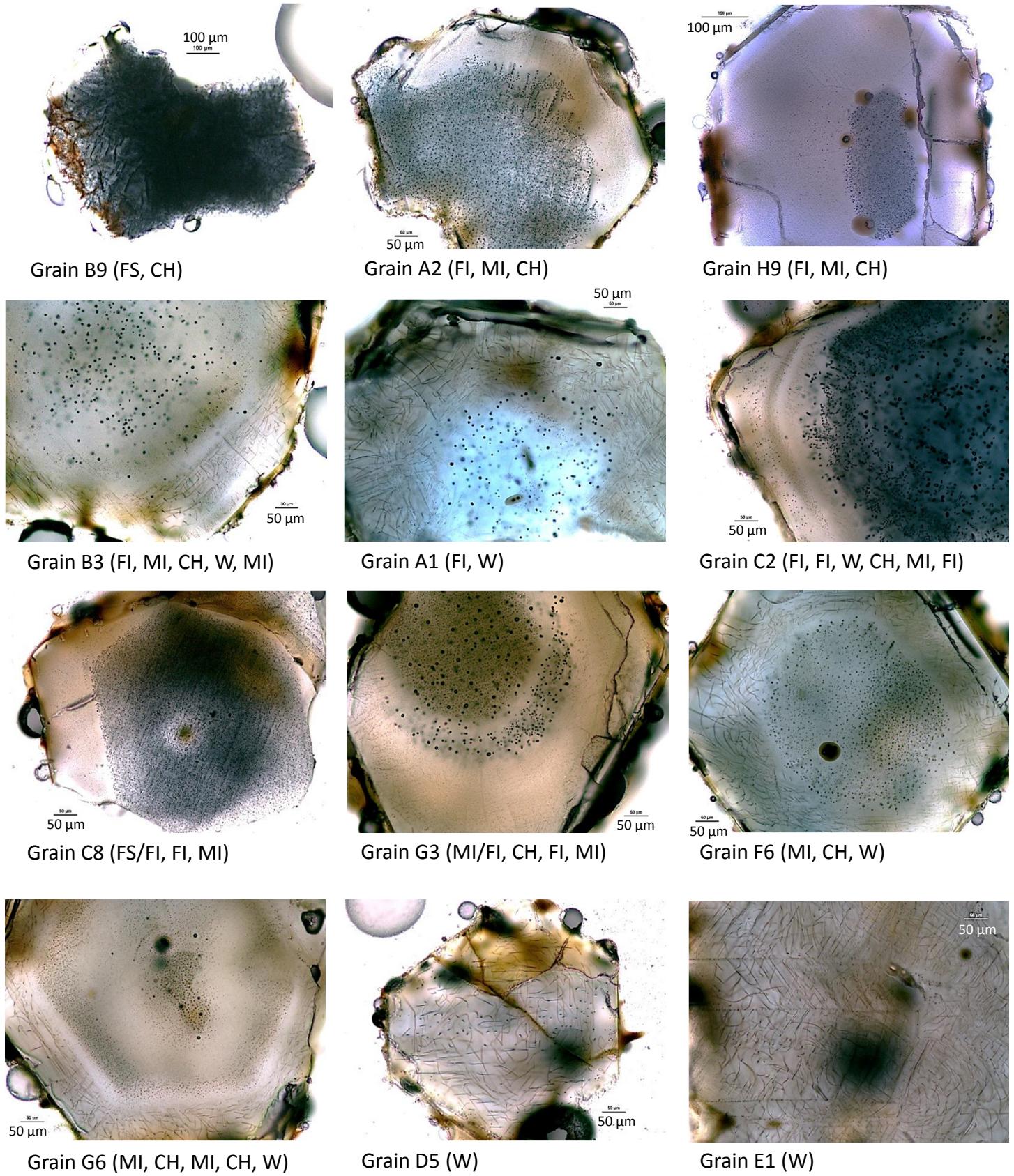
	Spec 1	Spec 2	Spec 3	Spec 4	Spec 5
	Elem. pk/bkg time				
Crystal	TAP	TAPH	PET	PETH	LIFH
Elem. 1	Si 30/15	Na 30/15	S 30/15	K 20/10	Fe 30/15
Elem. 2	Al 30/15	Mg 30/15	Ca 30/15	Cl 40/20	

3. Transmitted Light Photos (Haüyne Phenocrysts—Pre-Polishing)



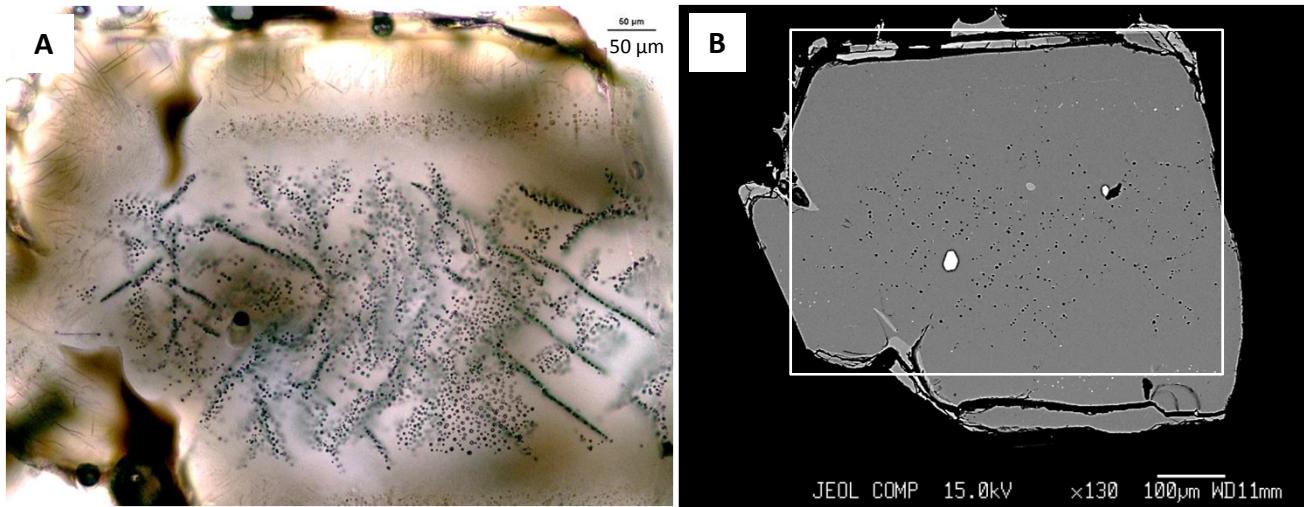
Supplemental Figure 1. Transmitted light photos of haüyne separates (pre-polishing, submerged in mineral oil) with variable light from below. Sample TFE-12-043, haüyne mount A: A-C) grains with no obvious zonation; D-F) grains with fluid inclusion-rich zones; G-I) grains with melt inclusion-rich zones. Sample TFE-12-031, haüyne mount B: J-L) grain with a fluid inclusion-rich zone. Zones rich in gas-dominated fluid inclusions and vapor bubbles within melt inclusions are blue at low light.

3. Transmitted Light Photos (Haüyne Phenocrysts—Post-Polishing)

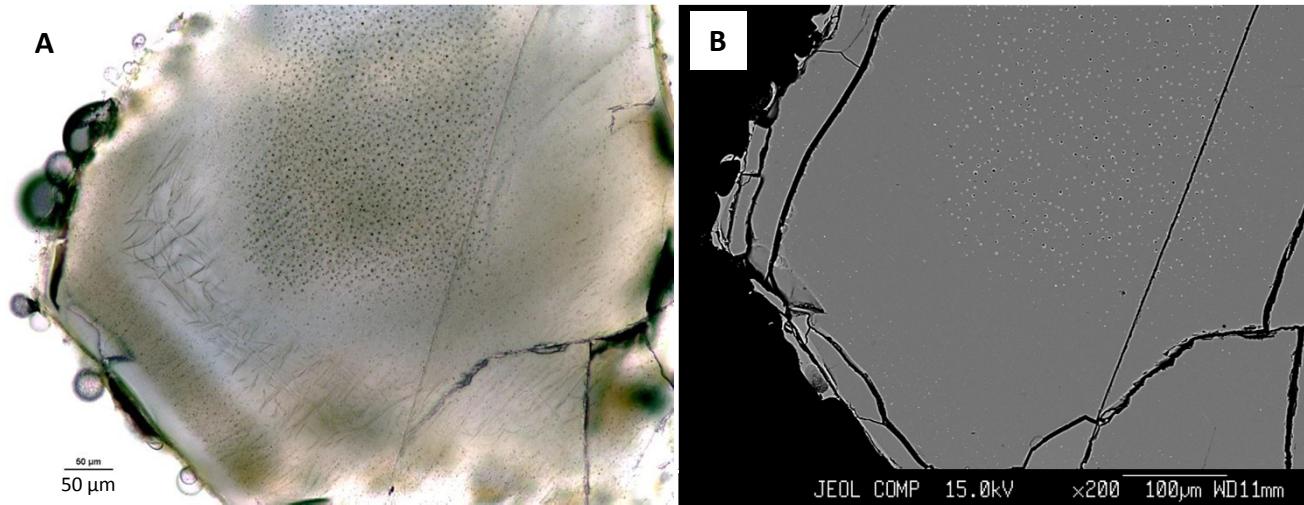


Supplemental Figure 2. Sample TFE-12-031, haüyne mount B. Select transmitted light photos of haüyne phenocrysts (post-polishing, mounted in epoxy). Major textural zones (from core to rim) are listed in parentheses: clean haüyne (CH), melt inclusions (MI), fluid inclusions (FI), Fe-sulfide inclusions (FS), wisps (W).

4. Transmitted Light Photos and Backscatter Images (Haüyne Phenocrysts-1)

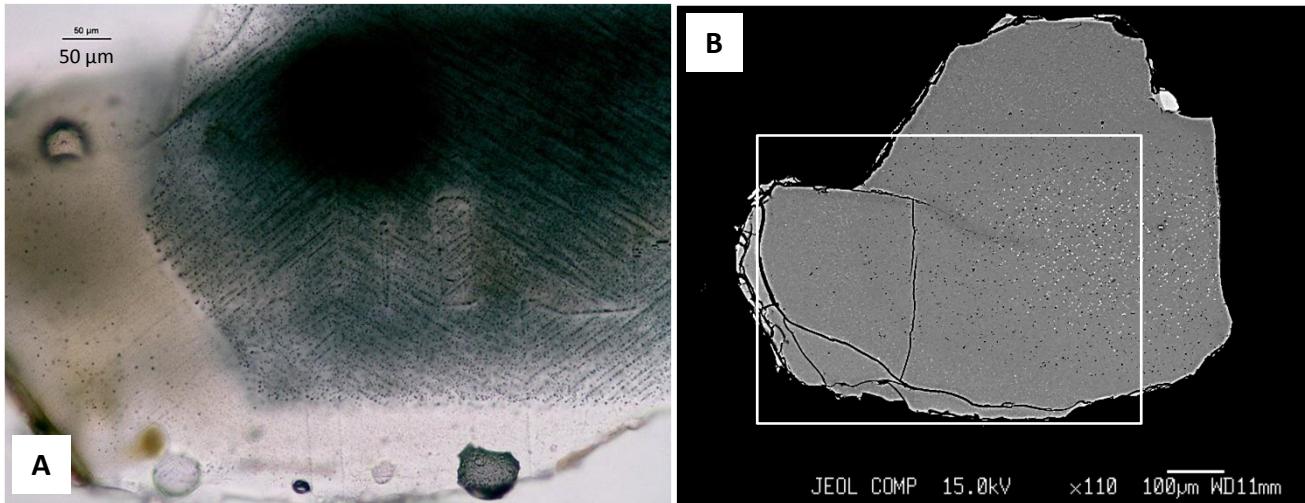


Supplemental Figure 3. Sample TFE-12-031, haüyne mount B, grain A9. A) Transmitted light photo (post-polishing) and B) backscatter image. The box in B shows the area in A. Major textural zones (from core to rim): fluid inclusions, clean haüyne, melt inclusions, wisps.

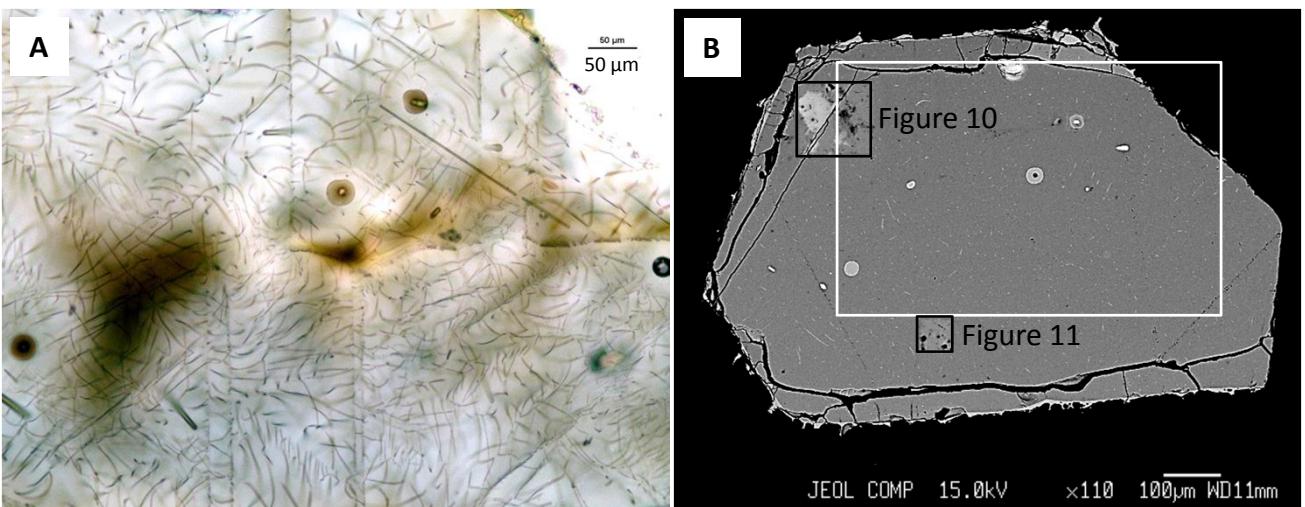


Supplemental Figure 4. Sample TFE-12-031, haüyne mount B, grain F10. A) Transmitted light photo (post-polishing) and B) backscatter image. Major textural zones (from core to rim): melt inclusions (larger), wisps, clean haüyne, melt inclusions (smaller), clean haüyne.

4. Transmitted Light Photos and Backscatter Images (Haüyne Phenocrysts-2)

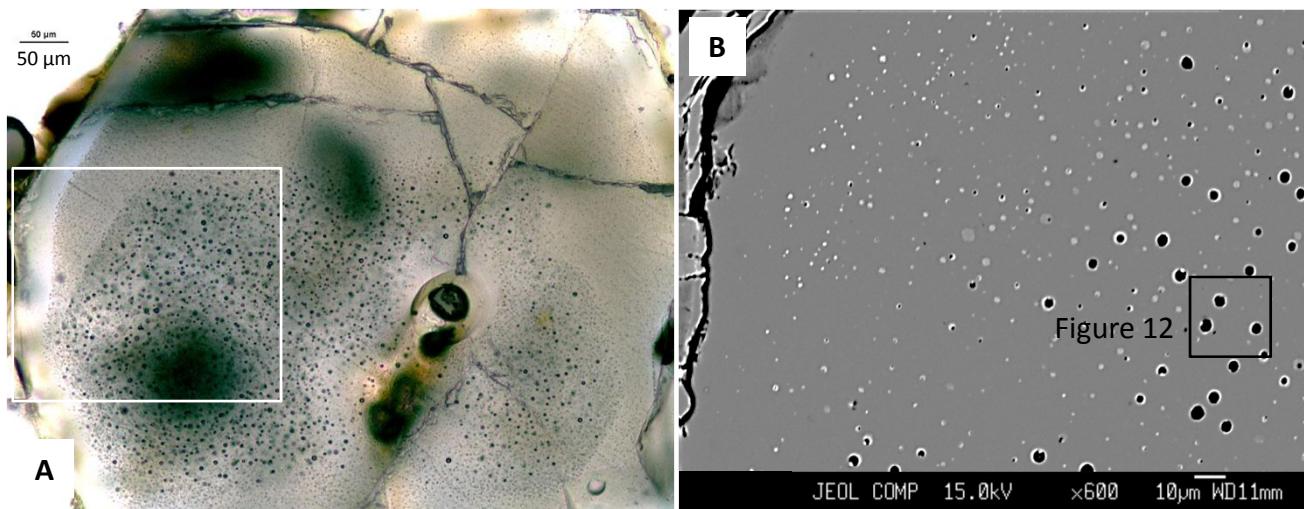


Supplemental Figure 5. Sample TFE-12-031, haüyne mount B, grain A8. A) Transmitted light photo (post-polishing) and B) backscatter image. The box in B shows the area in A. Major textural zones (from core to rim): Fe-sulfide inclusions/fluid inclusions, fluid inclusions, melt inclusions. Note the chevron-like patterns in the Fe-sulfide and fluid inclusion zones.



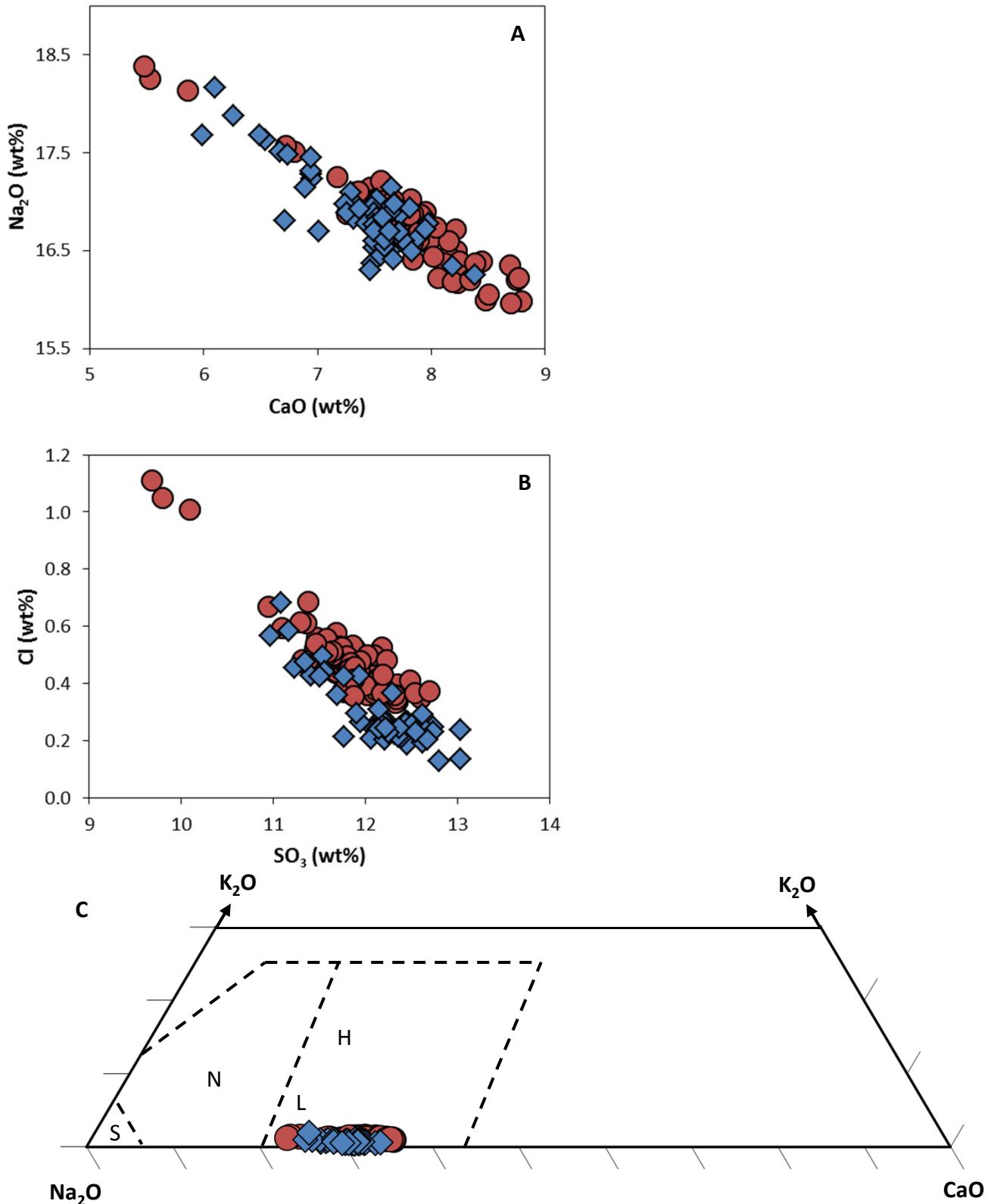
Supplemental Figure 6. Sample TFE-12-031, haüyne mount B, grain D1. A) Transmitted light photo (post-polishing) and B) backscatter image. The white box in B shows the area in A. The black boxes in B show the areas of the X-ray maps in Supplemental Figures 10 and 11; note the beam damage on the crystal surface. The whole grain has a wispy texture.

4. Transmitted Light Photos and Backscatter Images (Haüyne Phenocrysts-3)



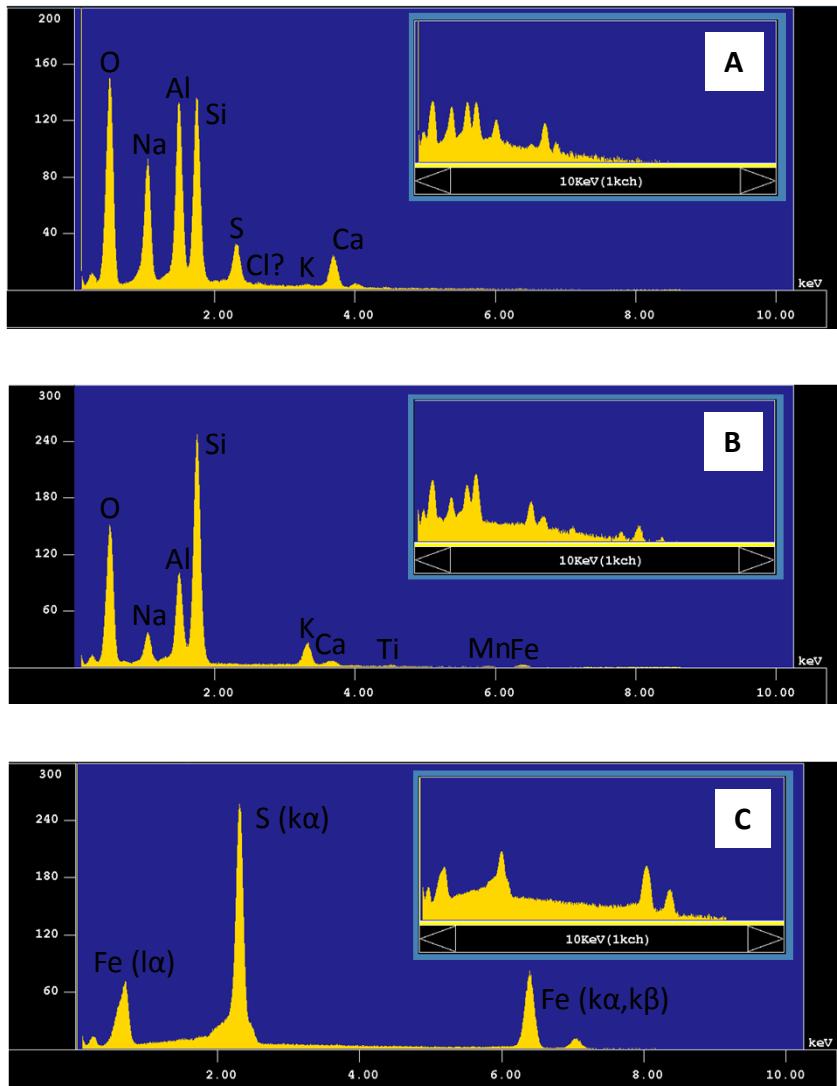
Supplemental Figure 7. Sample TFE-12-031, haüyne mount B, grain A7. A) Transmitted light photo (post-polishing) and B) backscatter image. The white box in A shows the area in B. The black box in B shows the area of the X-ray map in Supplemental Figure 12. Major textural zones (from core to rim): fluid inclusions/melt inclusions, melt inclusions, clean haüyne. Note the melt along the borders of the large fluid inclusions.

5. Compositional Data and Plots (Clean Haüyne)



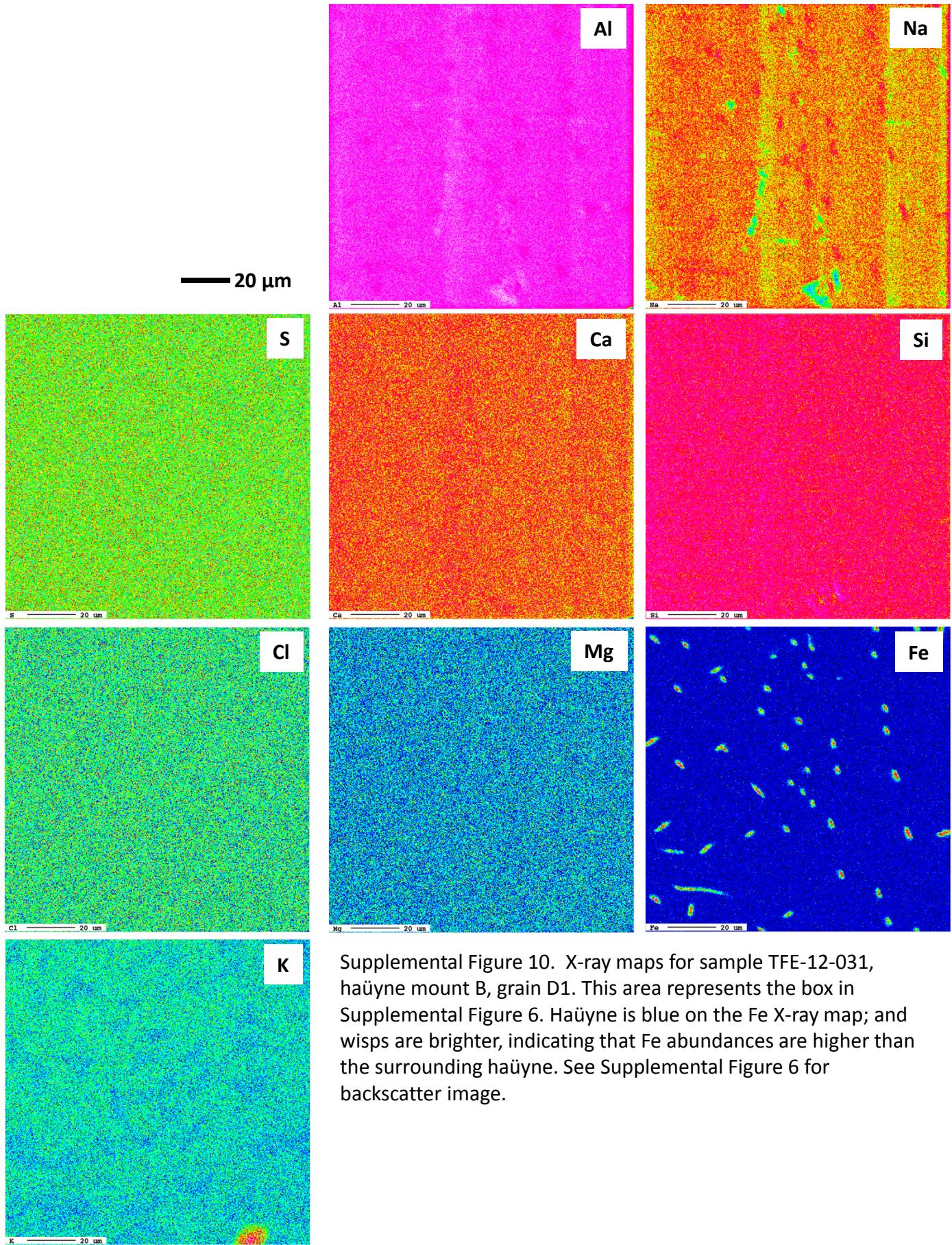
Supplemental Figure 8. Compositional plots for clean haüyne in sample TFE-12_031, haüyne mount B (blue diamonds) and sample TFE-12_043, haüyne mount A (red circles) based on data in Supplemental Table 3. A) and B) show substitution of elements within crystallographic sites. C) is a ternary plot for the sodalite group members; S is sodalite, N is nosean, H is haüyne, L is lazurite (i.e., S-bearing haüyne). See Bryan et al. (2002) for additional haüyne compositional data.

6. EDS Spectra (Clean Haüyne, Melt Inclusions, and Fe-Sulfide Inclusions)



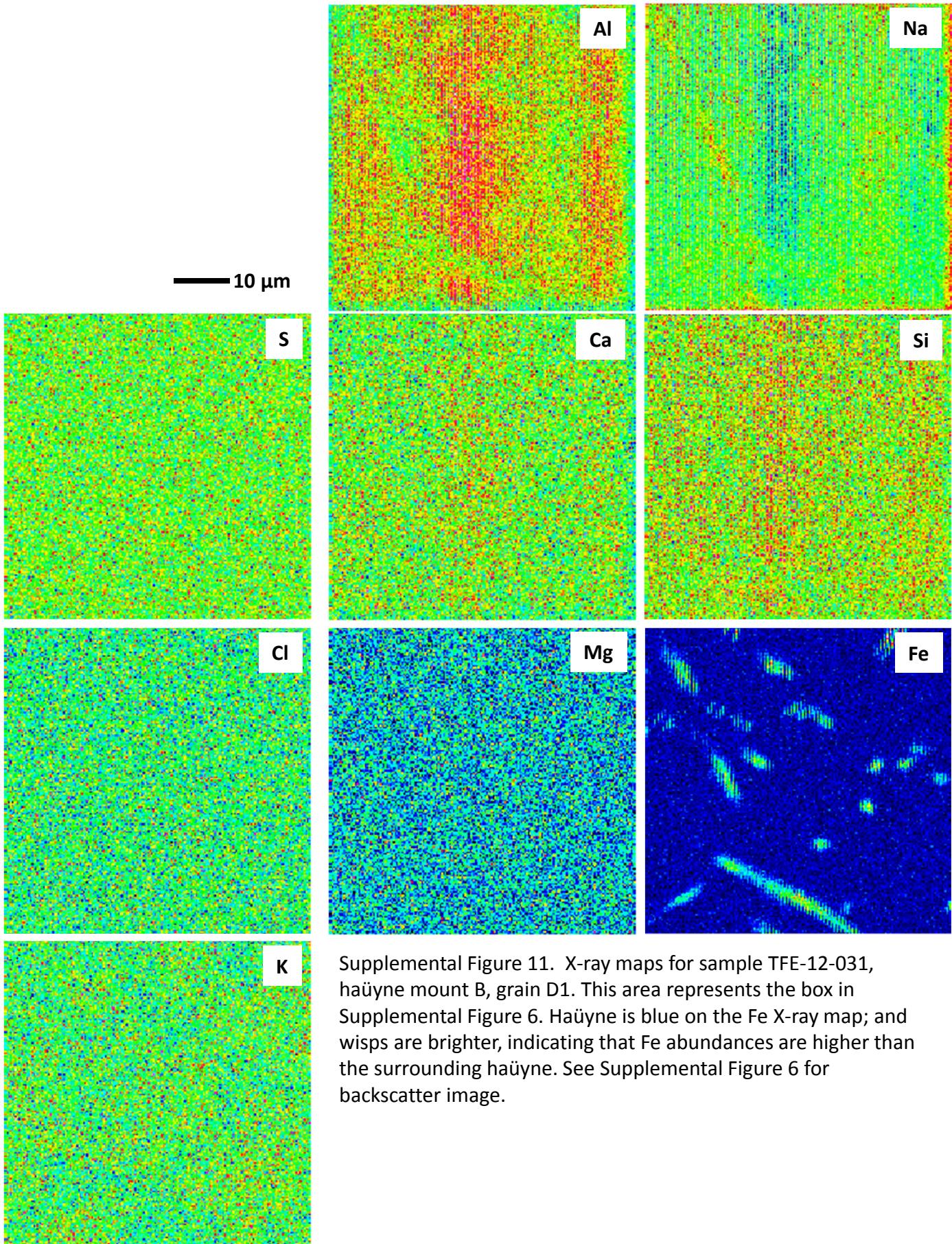
Supplemental Figure 9. Representative EDS spectra from sample TFE-12_031, haüyne mount B, for A) clean haüyne (grain A4, spot 2); B) melt inclusions (grain A5, spot 1); and C) Fe-sulfide inclusions (grain A6, spot 1). The spectra in the insets have a logarithmic scale.

7. X-ray Maps (Wisps-1)



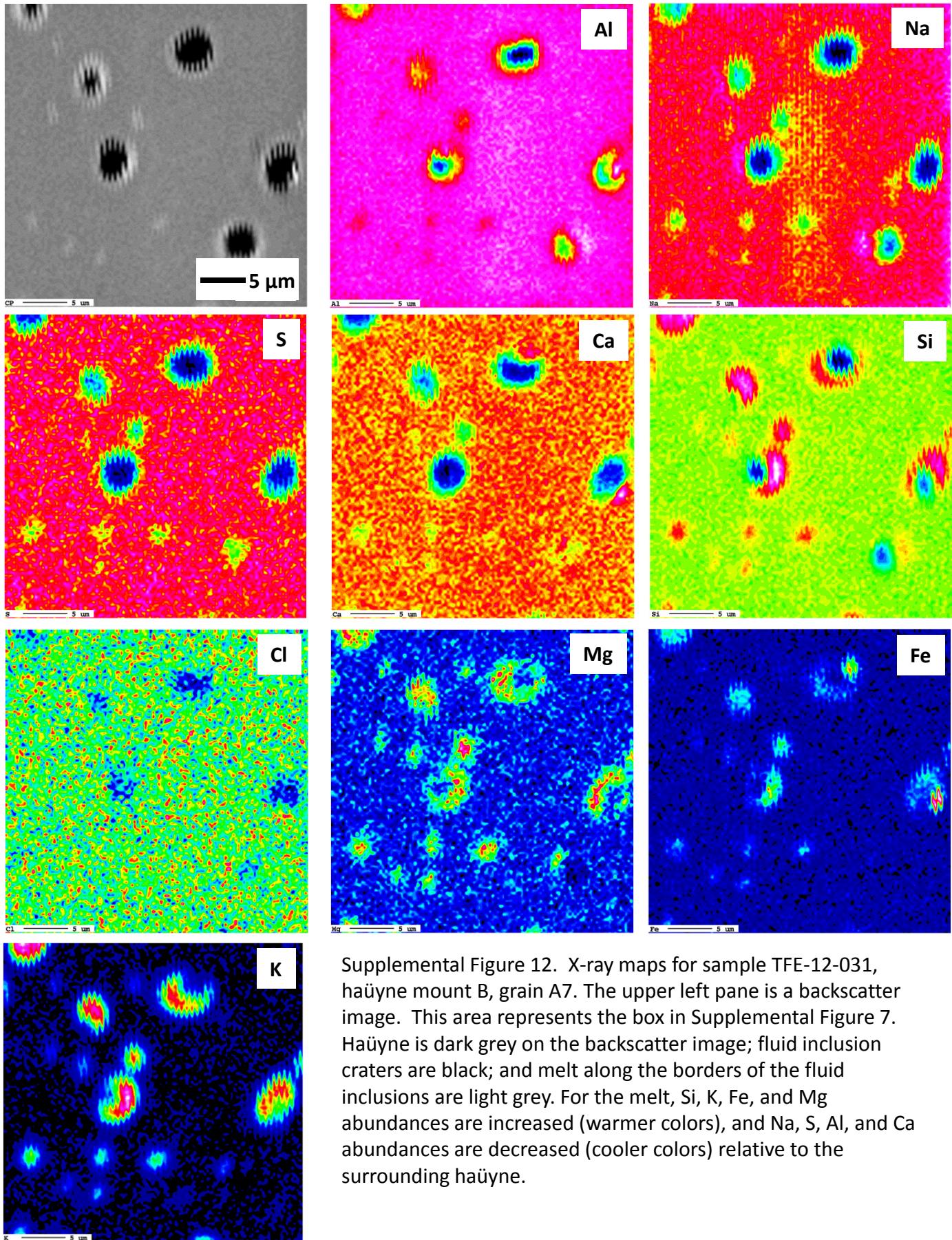
Supplemental Figure 10. X-ray maps for sample TFE-12-031, haüyne mount B, grain D1. This area represents the box in Supplemental Figure 6. Haüyne is blue on the Fe X-ray map; and wisps are brighter, indicating that Fe abundances are higher than the surrounding haüyne. See Supplemental Figure 6 for backscatter image.

7. X-ray Maps (Wisps-2)



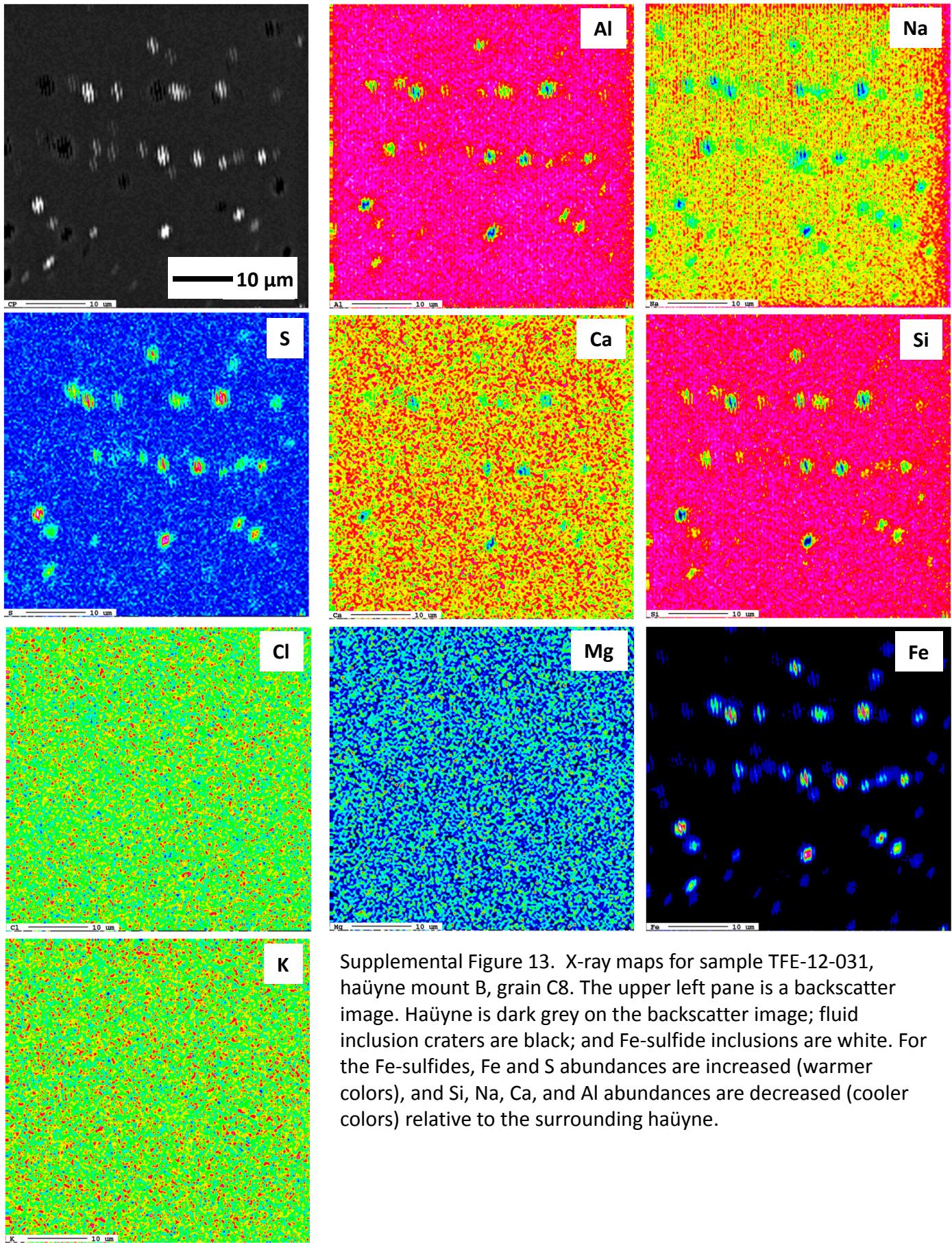
Supplemental Figure 11. X-ray maps for sample TFE-12-031, haüyne mount B, grain D1. This area represents the box in Supplemental Figure 6. Haüyne is blue on the Fe X-ray map; and wisps are brighter, indicating that Fe abundances are higher than the surrounding haüyne. See Supplemental Figure 6 for backscatter image.

7. X-ray Maps (Melt Inclusions)



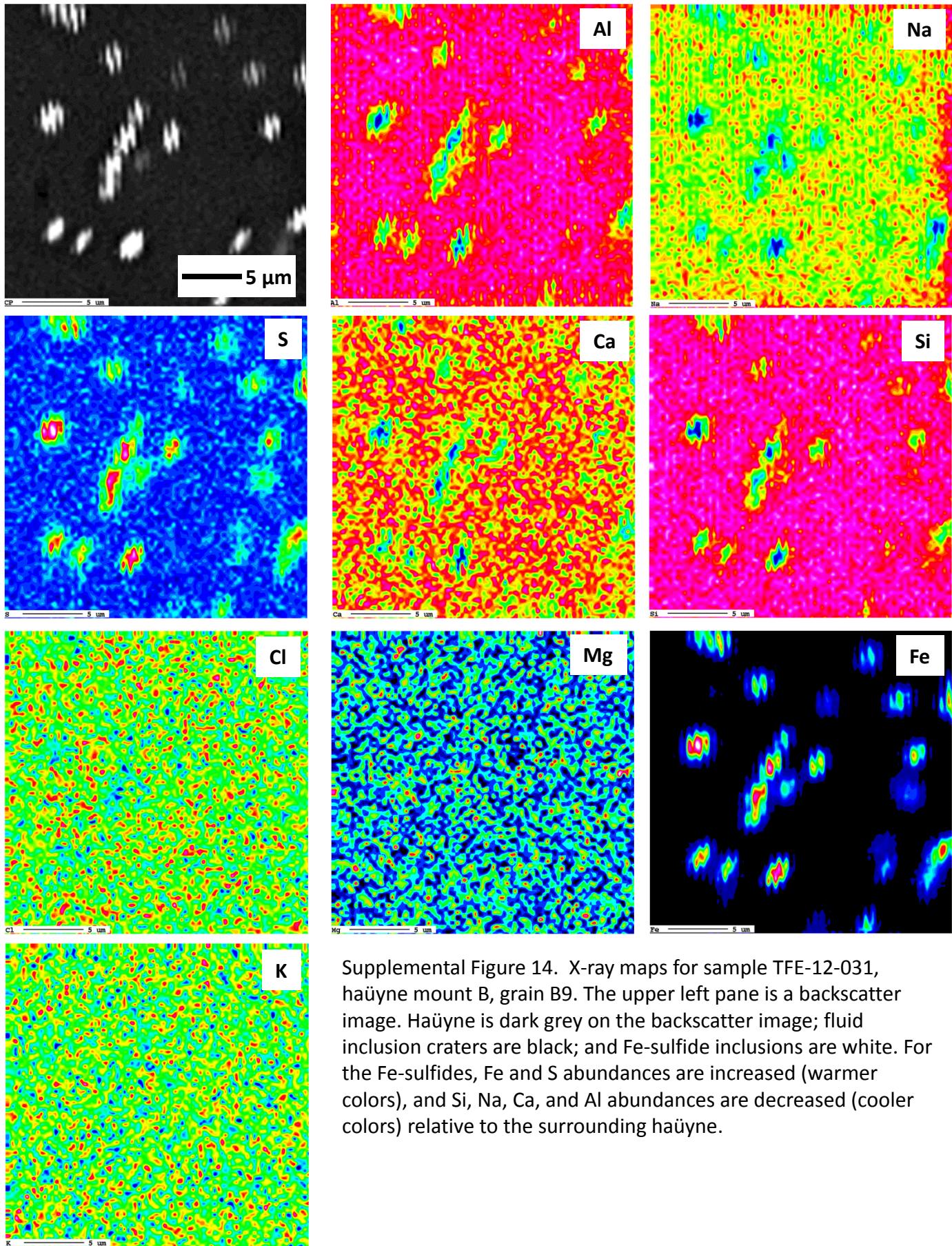
Supplemental Figure 12. X-ray maps for sample TFE-12-031, haüyne mount B, grain A7. The upper left pane is a backscatter image. This area represents the box in Supplemental Figure 7. Haüyne is dark grey on the backscatter image; fluid inclusion craters are black; and melt along the borders of the fluid inclusions are light grey. For the melt, Si, K, Fe, and Mg abundances are increased (warmer colors), and Na, S, Al, and Ca abundances are decreased (cooler colors) relative to the surrounding haüyne.

7. X-ray Maps (Fe-sulfide Inclusions-1)



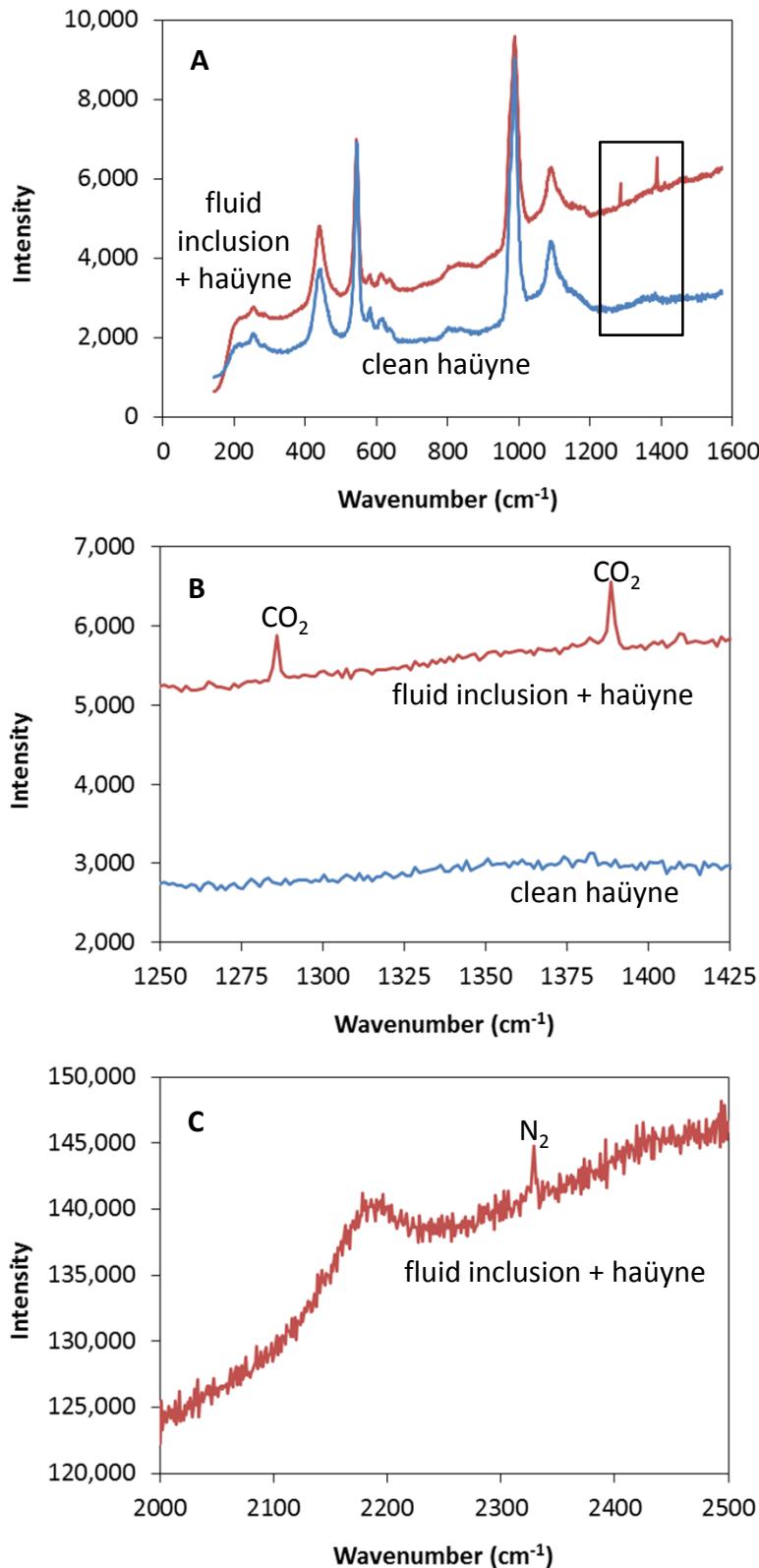
Supplemental Figure 13. X-ray maps for sample TFE-12-031, haüyne mount B, grain C8. The upper left pane is a backscatter image. Haüyne is dark grey on the backscatter image; fluid inclusion craters are black; and Fe-sulfide inclusions are white. For the Fe-sulfides, Fe and S abundances are increased (warmer colors), and Si, Na, Ca, and Al abundances are decreased (cooler colors) relative to the surrounding haüyne.

7. X-ray Maps (Fe-sulfide Inclusions-2)



Supplemental Figure 14. X-ray maps for sample TFE-12-031, haüyne mount B, grain B9. The upper left pane is a backscatter image. Haüyne is dark grey on the backscatter image; fluid inclusion craters are black; and Fe-sulfide inclusions are white. For the Fe-sulfides, Fe and S abundances are increased (warmer colors), and Si, Na, Ca, and Al abundances are decreased (cooler colors) relative to the surrounding haüyne.

8. Raman Spectra (Clean Haüyne and Fluid Inclusions)



Supplemental Figure 15. Raman spectra from sample TFE-12_031, haüyne mount B, for clean haüyne (blue lines; grain C9) and an unexposed gas-dominated fluid inclusion (red lines; grain A7; the fluid inclusion analysis incorporates the haüyne host). B) is a blowup of the box in A) in the region of the CO₂ doublet. C) is at higher wavenumbers near the N₂ peak. In A and B) the intensity of the fluid inclusion (plus haüyne) analysis were divided by 20 to better compare the two phases.

Supplemental Table 3. Major element compositions of clean haüyne via EPMA (page 1 of 3).

SiO ₂	Na ₂ O	SO ₃	K ₂ O	FeO	Al ₂ O ₃	MgO	CaO	Cl	Total	Comment (sample_grain_spot)
Sample TFE-12-031, haüyne mount B										
32.84	16.86	12.74	0.22	0.28	26.70	0.05	7.73	0.25	97.66	TFE12_31b_A1_1
32.90	16.94	12.52	0.21	0.23	26.65	0.08	7.66	0.23	97.41	TFE12_31b_A1_2
33.17	16.81	12.10	0.17	0.26	26.56	0.08	7.59	0.24	96.97	TFE12_31b_A1_3
32.91	17.14	12.44	0.17	0.20	26.48	0.07	7.65	0.27	97.32	TFE12_31b_A1_4
33.04	16.95	12.19	0.18	0.24	26.00	0.06	7.35	0.28	96.29	TFE12_31b_A2_1
32.60	16.80	12.46	0.17	0.41	25.82	0.03	7.49	0.26	96.04	TFE12_31b_A2_2
33.17	16.82	12.33	0.12	0.33	25.87	0.11	7.32	0.24	96.31	TFE12_31b_A2_3
33.39	17.09	12.27	0.12	0.36	26.04	0.07	7.29	0.25	96.88	TFE12_31b_A2_4
33.54	17.51	11.55	0.18	0.28	26.46	0.02	6.67	0.45	96.66	TFE12_31b_A3_1
33.68	17.63	11.93	0.14	0.29	26.56	0.05	6.54	0.43	97.26	TFE12_31b_A3_2
32.51	16.90	12.16	0.22	0.28	25.80	0.06	7.56	0.25	95.76	TFE12_31b_A4_1
32.86	16.53	12.57	0.18	0.29	25.85	0.07	7.50	0.23	96.07	TFE12_31b_A4_2
32.81	16.60	12.14	0.15	0.26	25.95	0.06	7.50	0.27	95.74	TFE12_31b_A4_3
33.15	17.28	11.41	0.22	0.25	26.67	0.03	6.94	0.43	96.37	TFE12_31b_A5_1
33.29	17.23	11.23	0.23	0.21	26.73	0.01	6.95	0.45	96.33	TFE12_31b_A5_2
33.07	17.48	11.34	0.21	0.26	26.36	0.03	6.74	0.47	95.96	TFE12_31b_A5_3
33.49	17.68	11.53	0.22	0.28	26.35	0.04	6.49	0.49	96.57	TFE12_31b_A6_1
33.64	17.88	11.17	0.22	0.21	26.53	0.02	6.26	0.58	96.51	TFE12_31b_A6_2
32.88	16.61	12.45	0.12	0.24	25.99	0.08	7.86	0.19	96.41	TFE12_31b_A7_1
33.15	16.93	12.62	0.11	0.22	26.12	0.08	7.81	0.19	97.23	TFE12_31b_A7_2
33.81	18.16	11.08	0.22	0.28	26.75	0.01	6.10	0.68	97.10	TFE12_31b_A8_1
32.82	16.60	12.60	0.17	0.22	26.34	0.05	7.76	0.25	96.81	TFE12_31b_A9_1
33.19	16.37	12.09	0.20	0.24	26.15	0.10	7.48	0.24	96.05	TFE12_31b_A9_2
33.24	16.83	12.44	0.16	0.26	26.16	0.10	7.55	0.26	97.01	TFE12_31b_A9_3
33.08	16.65	12.22	0.16	0.27	25.99	0.07	7.65	0.24	96.34	TFE12_31b_A9_4
32.95	16.81	12.13	0.16	0.26	26.17	0.05	7.50	0.24	96.27	TFE12_31b_A9_5
32.32	16.78	12.45	0.17	0.23	25.91	0.04	7.97	0.23	96.11	TFE12_31b_B1_1
32.56	16.72	12.28	0.20	0.28	25.92	0.06	7.62	0.23	95.87	TFE12_31b_B1_2
32.53	16.98	12.31	0.18	0.30	25.79	0.05	7.68	0.22	96.04	TFE12_31b_B1_3
32.96	17.02	12.20	0.14	0.29	25.50	0.07	7.52	0.27	95.97	TFE12_31b_B1_4
32.87	16.94	12.14	0.14	0.24	26.10	0.05	7.48	0.24	96.20	TFE12_31b_B8_1
32.81	16.45	12.22	0.15	0.25	26.10	0.05	7.56	0.22	95.82	TFE12_31b_B10_1
32.79	16.78	12.06	0.11	0.30	25.96	0.07	7.43	0.21	95.70	TFE12_31b_B10_2
33.17	16.97	12.29	0.21	0.24	26.25	0.04	7.24	0.36	96.78	TFE12_31b_C2_1
33.04	17.31	11.55	0.21	0.19	26.48	0.03	6.94	0.44	96.19	TFE12_31b_C2_2
33.19	17.45	11.77	0.24	0.24	26.35	0.05	6.94	0.42	96.65	TFE12_31b_C2_3
33.08	16.89	12.50	0.13	0.30	26.00	0.09	7.65	0.25	96.89	TFE12_31b_C10_1
32.96	16.49	12.24	0.17	0.20	26.16	0.06	7.83	0.24	96.35	TFE12_31b_D2_1
32.64	16.72	12.21	0.13	0.22	26.29	0.05	7.95	0.20	96.40	TFE12_31b_D4_1
32.65	16.34	13.03	0.11	0.25	25.61	0.15	8.19	0.13	96.46	TFE12_31b_D9_1
32.64	16.25	12.80	0.13	0.26	25.56	0.09	8.38	0.13	96.23	TFE12_31b_D9_2
32.83	16.88	12.27	0.17	0.26	25.58	0.07	7.26	0.23	95.56	TFE12_31b_F1a_1
32.82	16.88	12.18	0.12	0.27	25.71	0.06	7.50	0.25	95.79	TFE12_31b_F1b_1
32.99	16.50	12.74	0.17	0.26	25.91	0.06	7.64	0.23	96.49	TFE12_31b_F6_1
33.18	16.54	12.39	0.12	0.24	25.82	0.07	7.59	0.21	96.16	TFE12_31b_F7_1
32.99	16.83	12.67	0.14	0.28	25.87	0.08	7.52	0.20	96.58	TFE12_31b_F7_2
32.88	16.67	12.36	0.12	0.25	25.75	0.05	7.70	0.21	95.98	TFE12_31b_F8a_1
33.32	16.77	12.55	0.13	0.30	26.21	0.07	7.50	0.23	97.08	TFE12_31b_F8b_1
33.37	16.83	13.03	0.10	0.26	26.04	0.08	7.57	0.24	97.51	TFE12_31b_F8c_1
33.11	16.69	12.62	0.19	0.20	26.03	0.05	7.72	0.29	96.91	TFE12_31b_G1_1
33.25	16.70	11.95	0.23	0.32	26.27	0.08	7.50	0.26	96.57	TFE12_31b_G2_1

Supplemental Table 3. Major element compositions of clean haüyne via EPMA (page 2 of 3).

SiO ₂	Na ₂ O	SO ₃	K ₂ O	FeO	Al ₂ O ₃	MgO	CaO	Cl	Total	Comment (sample_grain_spot)
Sample TFE-12-031, haüyne mount B (continued)										
33.14	16.41	12.37	0.15	0.25	25.83	0.08	7.67	0.24	96.15	TFE12_31b_G2_2
33.73	17.14	11.50	0.20	0.21	26.44	0.06	6.89	0.42	96.60	TFE12_31b_G3_1
34.05	16.80	11.69	0.15	0.30	26.51	0.04	6.71	0.36	96.61	TFE12_31b_G6_1
33.30	16.30	12.25	0.19	0.29	25.84	0.09	7.46	0.23	95.95	TFE12_31b_G8_1
33.04	16.97	11.90	0.17	0.22	26.11	0.05	7.68	0.30	96.44	TFE12_31b_H3_1
32.99	16.61	12.15	0.17	0.23	26.06	0.05	7.59	0.31	96.16	TFE12_31b_H3_2
33.37	16.70	12.14	0.16	0.29	26.09	0.07	7.63	0.24	96.69	TFE12_31b_H4_1
33.05	16.92	12.22	0.10	0.26	25.64	0.07	7.37	0.24	95.87	TFE12_31b_H10a_1
32.06	16.70	11.77	0.10	0.25	25.36	0.07	7.01	0.21	93.53	TFE12_31b_H10b_1
32.94	17.68	10.97	0.46	0.24	26.21	0.01	5.99	0.57	95.06	TFE12_31b_B9_1
Sample TFE-12-043, haüyne mount A										
33.15	16.50	12.02	0.31	0.26	26.18	0.03	8.22	0.36	97.03	TFE_043_A1_1
32.85	16.39	12.09	0.26	0.27	26.32	0.03	8.44	0.37	97.02	TFE_043_A1_2
32.99	16.44	12.25	0.28	0.23	26.07	0.04	8.15	0.36	96.80	TFE_043_A1_3
33.18	16.89	11.92	0.28	0.23	26.34	0.03	7.95	0.45	97.27	TFE_043_A2_1
33.41	16.92	11.47	0.26	0.20	26.27	0.02	7.51	0.56	96.62	TFE_043_A4_1
33.03	16.84	11.89	0.32	0.19	26.42	0.04	7.71	0.52	96.97	TFE_043_A4_2
33.03	16.89	11.89	0.32	0.21	26.52	0.00	7.65	0.46	96.98	TFE_043_A4_3
32.94	16.80	11.79	0.33	0.18	26.20	0.00	7.92	0.47	96.62	TFE_043_A4_4
32.91	16.92	11.70	0.31	0.19	26.26	0.02	7.70	0.50	96.51	TFE_043_A4_5
33.20	16.68	11.85	0.24	0.22	26.26	0.05	7.72	0.47	96.69	TFE_043_A5_1
33.49	16.69	12.07	0.28	0.22	26.05	0.04	7.82	0.43	97.08	TFE_043_A5_2
33.03	16.75	11.84	0.24	0.19	26.20	0.05	7.83	0.42	96.55	TFE_043_A5_3
33.20	16.25	11.88	0.26	0.24	26.12	0.06	8.09	0.41	96.51	TFE_043_A6_1
33.19	16.82	11.68	0.25	0.24	26.09	0.04	7.93	0.45	96.69	TFE_043_A6_2
33.07	16.63	12.13	0.31	0.28	26.24	0.03	7.82	0.42	96.92	TFE_043_A8_1
32.95	16.60	11.67	0.30	0.22	26.30	0.03	7.91	0.44	96.43	TFE_043_A8_2
32.82	16.62	12.35	0.29	0.23	26.43	0.05	7.99	0.40	97.18	TFE_043_A7_1
32.67	15.98	12.34	0.22	0.17	26.06	0.04	8.79	0.34	96.61	TFE_043_A10_1
32.72	16.72	11.85	0.25	0.21	26.17	0.06	8.21	0.40	96.58	TFE_043_A11_1
32.89	16.37	12.48	0.28	0.24	26.21	0.06	8.12	0.41	97.06	TFE_043_A11_2
32.67	16.39	12.60	0.28	0.23	26.09	0.04	8.25	0.35	96.89	TFE_043_A11_3
32.69	16.60	11.85	0.24	0.23	26.06	0.05	8.15	0.42	96.29	TFE_043_A11_1a
33.19	16.86	11.93	0.27	0.27	26.35	0.04	7.91	0.45	97.27	TFE_043_A12_1
33.27	16.61	11.68	0.28	0.21	26.40	0.01	7.89	0.44	96.79	TFE_043_A12_2
33.59	16.87	11.68	0.22	0.26	26.36	0.02	7.26	0.58	96.84	TFE_043_B9_1a
33.34	16.97	11.49	0.29	0.27	26.30	0.01	7.47	0.52	96.66	TFE_043_B9_1b
33.25	16.78	11.64	0.25	0.20	26.33	0.02	7.53	0.52	96.53	TFE_043_B9_2
33.24	16.87	11.45	0.27	0.24	26.09	0.03	7.57	0.52	96.29	TFE_043_B9_3
33.29	16.97	11.65	0.27	0.24	26.26	0.04	7.39	0.47	96.58	TFE_043_B9_4
33.47	16.78	11.71	0.27	0.23	26.25	0.03	7.72	0.53	96.99	TFE_043_B9_5
33.07	17.14	11.86	0.26	0.23	26.29	0.03	7.46	0.53	96.87	TFE_043_B9_6
33.54	17.09	11.58	0.23	0.21	26.13	0.01	7.33	0.56	96.68	TFE_043_B9_6a
33.82	17.25	11.36	0.25	0.18	26.34	0.02	7.17	0.61	97.00	TFE_043_B10_1
33.07	16.76	11.91	0.25	0.24	26.36	0.03	7.91	0.47	97.00	TFE_043_C1_1
33.23	16.59	11.84	0.30	0.22	26.47	0.02	7.84	0.40	96.91	TFE_043_C1_2
33.60	17.03	11.74	0.25	0.25	26.05	0.03	7.52	0.53	96.99	TFE_043_C3_1
33.49	17.02	11.80	0.27	0.21	26.23	0.04	7.82	0.50	97.37	TFE_043_C3_2
33.29	16.87	11.31	0.26	0.20	26.26	0.01	7.84	0.47	96.52	TFE_043_C3_3
33.42	16.83	11.45	0.30	0.21	26.55	0.04	7.73	0.48	97.01	TFE_043_C6_1
33.78	17.51	10.94	0.26	0.20	26.46	0.03	6.80	0.67	96.65	TFE_043_D1_1

Supplemental Table 3. Major element compositions of clean haüyne via EPMA (page 3 of 3).

SiO ₂	Na ₂ O	SO ₃	K ₂ O	FeO	Al ₂ O ₃	MgO	CaO	Cl	Total	Comment (sample_grain_spot)
Sample TFE-12-043, haüyne mount A (continued)										
33.90	17.57	11.38	0.25	0.24	26.63	0.03	6.72	0.69	97.41	TFE_043_D1_2
33.13	16.78	11.60	0.23	0.20	26.23	0.02	7.60	0.49	96.29	TFE_043_D2_1
33.53	16.77	11.79	0.26	0.20	26.19	0.04	7.59	0.46	96.83	TFE_043_D2_2
33.27	16.92	11.58	0.28	0.21	26.27	0.03	7.59	0.47	96.62	TFE_043_D2_3
34.10	18.13	10.09	0.32	0.23	26.80	0.01	5.86	1.01	96.55	TFE_043_D3_1
34.47	18.25	9.80	0.31	0.22	26.71	0.00	5.53	1.05	96.34	TFE_043_D3_2
34.37	18.38	9.68	0.28	0.28	26.80	0.01	5.48	1.11	96.39	TFE_043_D3_3
33.42	16.89	11.29	0.24	0.22	26.50	0.04	7.65	0.61	96.87	TFE_043_D4_1
33.16	17.02	11.65	0.23	0.21	26.14	0.05	7.53	0.50	96.49	TFE_043_D6_1
33.33	16.83	11.81	0.28	0.26	26.33	0.01	7.72	0.45	97.02	TFE_043_D6_2
33.74	16.92	12.18	0.21	0.23	26.25	0.06	7.63	0.53	97.74	TFE_043_D7_1
33.37	16.79	12.09	0.23	0.32	26.41	0.01	7.46	0.50	97.18	TFE_043_D7_2
33.52	16.63	11.64	0.28	0.20	26.23	0.00	7.66	0.51	96.67	TFE_043_D7_3
33.63	16.90	11.56	0.28	0.15	26.23	0.03	7.46	0.49	96.73	TFE_043_D7_4
33.45	15.96	12.32	0.25	0.20	26.05	0.06	8.70	0.33	97.33	TFE_043_D9_1
33.33	16.20	11.78	0.24	0.18	26.20	0.04	8.75	0.37	97.09	TFE_043_D9_2
33.69	16.59	12.02	0.31	0.22	26.17	0.02	7.63	0.50	97.15	TFE_043_D10_1
33.57	16.79	11.31	0.26	0.24	26.25	0.05	7.68	0.48	96.63	TFE_043_D10_2
33.39	16.86	11.95	0.23	0.24	26.13	0.03	7.81	0.48	97.12	TFE_043_D11_1
33.44	16.88	11.43	0.20	0.23	26.10	0.03	7.64	0.48	96.44	TFE_043_D11_2
33.37	16.77	11.84	0.26	0.25	26.14	0.03	7.60	0.47	96.73	TFE_043_D11_3
34.06	17.10	11.37	0.29	0.28	26.42	0.01	7.36	0.47	97.36	TFE_043_D14_1
33.36	16.78	11.59	0.27	0.22	26.34	0.04	7.52	0.51	96.62	TFE_043_D14_2
33.06	15.99	12.33	0.24	0.22	25.79	0.04	8.48	0.35	96.50	TFE_043_E1_1
33.18	16.05	12.11	0.26	0.21	25.91	0.04	8.50	0.38	96.64	TFE_043_E1_2
33.26	16.17	12.11	0.28	0.26	26.01	0.05	8.23	0.41	96.78	TFE_043_E3_1
33.10	16.24	11.90	0.24	0.17	26.21	0.06	8.26	0.40	96.57	TFE_043_E3_2
33.81	16.94	11.46	0.31	0.19	26.41	0.01	7.50	0.54	97.17	TFE_043_E4_1
33.21	16.74	11.83	0.29	0.23	26.27	0.04	8.04	0.45	97.10	TFE_043_F1_1
33.62	16.69	11.88	0.30	0.25	26.23	0.03	7.89	0.46	97.35	TFE_043_F1_2
33.38	16.22	11.76	0.26	0.17	26.28	0.01	8.06	0.38	96.52	TFE_043_F2_1
33.53	16.44	12.00	0.29	0.23	26.11	0.05	8.02	0.39	97.06	TFE_043_F2_2
33.41	16.41	11.87	0.27	0.25	26.10	0.02	7.84	0.41	96.58	TFE_043_F2_3
33.57	16.18	12.53	0.27	0.19	26.31	0.02	8.19	0.37	97.63	TFE_043_F4_1
33.43	16.20	12.69	0.27	0.19	26.05	0.03	8.34	0.37	97.58	TFE_043_F4_2
33.30	16.37	11.87	0.29	0.24	26.43	0.05	8.38	0.35	97.28	TFE_043_F4_3
33.26	16.35	12.31	0.26	0.19	26.45	0.04	8.69	0.36	97.92	TFE_043_G1_1
33.23	16.22	12.18	0.25	0.21	26.22	0.09	8.77	0.36	97.54	TFE_043_G1_2
33.73	17.21	12.23	0.29	0.21	26.53	0.03	7.56	0.48	98.27	TFE_043_G2_1
33.41	17.01	12.19	0.27	0.22	26.35	0.02	7.67	0.43	97.57	TFE_043_G2_2
34.30	16.89	11.09	0.31	0.19	26.51	0.01	7.30	0.59	97.20	TFE_043_G3_1