

December 15, 2010  
Lab no. 210792

Mr. Micah Portney  
ZEO Health Ltd  
29 Sunset View Drive  
West Nyack, New York 10994

Dear Mr. Portney:

Enclosed are the x-ray fluorescence (XRF) and x-ray diffraction (XRD) analytical results for your sample, "NCD2010." This report will be mailed and emailed to you. The analyses will be charged to the credit card number you provided.

The sample was received as ten small bottles of suspended material. The material in the bottles was dumped into a container and air-dried before grinding and analysis. The total weight of the air-dried material was **2.3 gm**. The dry sample was ground to approximately -400 mesh in a steel swing mill and then analyzed by our standard XRF procedure for 31 major, minor and trace elements. The relative precision/accuracy for this procedure is ~5-10% for major-minor elements and ~10-15% for trace elements (those elements listed in ppm) at levels greater than twice the detection limit in samples of average geologic composition. A replicate sample and a standard reference material ("SY4", a CANMET standard rock) were analyzed with the sample to demonstrate analytical reproducibility for your sample and analytical accuracy for a geologic standard, respectively. The accepted ("known") values for the quality control standard are listed with the XRF results.

A representative portion of the ground sample was packed into a well-type plastic holder and then scanned with the diffractometer over the range,  $3-61^\circ 2\theta$  using Cu-K $\alpha$  radiation. The ground sample was also prepared as an oriented mount by mixing ground sample with distilled water, drawing the mixture onto a cellulose acetate filter and then rolling the deposited material onto a glass disk. The oriented mount was scanned over the range  $2-30^\circ$ ; treated with glycol and then re-scanned over the range  $2-22^\circ$ . Analysis of oriented mounts aids in the identification of clay minerals. The results of the scans are summarized as approximate mineral weight percent concentrations on the enclosed table. Estimates of mineral concentrations were made using our XRF-determined elemental compositions, the relative peak heights/areas on the XRD scans and comparison to XRD data for zeolite standards. This sample appears to contain "amorphous" (noncrystalline) material. Amorphous material appears only as a broad elevation in the background of the XRD scan so its composition cannot be determined and the estimate of its concentration must be considered an "educated guess" based on the difference between the total mineral concentration and 100%. The detection limit for an average mineral in this sample is ~1-3% and the analytical reproducibility is approximately equal to the square root of the amount. "Unidentified" accounts for that portion of the XRD scan which could not be resolved and a "?" indicates doubt in both mineral identification and amount.

Thank you for the opportunity to be of service to ZEO Health.

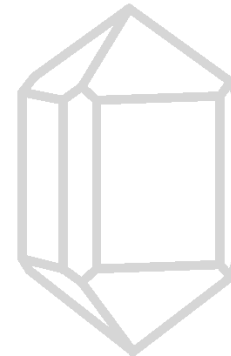
Sincerely,

Peggy Dalheim

IDENT	Wt %												
	Na2O	MgO	Al2O3	SiO2	P2O5	S	Cl	K2O	CaO	TiO2	MnO2	Fe2O3	BaO
SAMPLE	0.80	1.27	11.4	62.2	<0.05	<0.05	<0.02	2.57	2.53	0.25	0.03	2.00	0.04
<b>Quality Control - Replicate (R) sample and standard reference material (SY4) analyzed with sample</b>													
SAMPLE(R)	0.80	1.28	11.4	62.0	<0.05	<0.05	<0.02	2.56	2.53	0.25	0.03	2.00	0.04
SY4-XRF	6.37	0.73	21.5	49.2	0.14	<0.05	0.91	1.96	8.79	0.33	0.12	5.66	0.04
SY4-known	7.10	0.54	20.7	49.9	0.13	0.01	----	1.66	8.05	0.29	0.14	6.21	0.04

IDENT	PPM												
	V	Cr	Co	Ni	W	Cu	Zn	As	Sn	Pb	Mo	Sr	U
SAMPLE	<10	14	<10	28	<10	13	69	28	<50	18	<10	554	22
<b>Quality Control</b>													
SAMPLE(R)	<10	13	<10	28	<10	13	69	27	<50	18	<10	562	20
SY4-XRF	<10	11	<10	<10	18	<10	99	<20	<50	<10	<10	1198	24
SY4-known	8	12	3	9	--	7	93	<20	7	10	<10	1191	<20

Ident	PPM				
	Th	Nb	Zr	Rb	Y
SAMPLE	51	29	140	102	33
<b>Quality Control</b>					
SAMPLE(R)	53	29	137	105	28
SY4-XRF	22	24	531	71	142
SY4-known	<20	13	517	55	119



Initial \_\_\_\_\_

Date \_\_\_\_\_

Analysis Performed By The Mineral Lab, Inc

Mineral Name	Chemical Formula	Approx. Wt %
Clinoptilolite	$(\text{Na,K,Ca})_6(\text{Si,Al})_{36}\text{O}_{72} \cdot 20\text{H}_2\text{O}$	67
Smectite	$(\text{Ca,Na})_x(\text{Al,Mg,Fe})_4(\text{Si,Al})_8\text{O}_{20}(\text{OH,F})_4 \cdot n\text{H}_2\text{O}$	<10
K-feldspar	$(\text{K,Na})\text{AlSi}_3\text{O}_8$	<10
Plagioclase feldspar	$(\text{Na,Ca})\text{Al}(\text{Si,Al})_3\text{O}_8$	<5?
"Amorphous"	?	<15
"Unidentified"	?	<5

Initial \_\_\_\_\_

Date \_\_\_\_\_

Analysis performed by The Mineral Lab, Inc

