

Teof

2x Vertical Exaggeration



Field and	UTM	Elev.		Мар	ap Oxides (wt. percent) Trace Elements (parts per million)																															
boratory no.	Coordinates	(ft)	Lithology	Unit	SiO ₂	Al_2O_3	TiO ₂	FeO*	MnO	CaO	MgO	K ₂ O	Na ₂ O	P_2O_5	Ni	Cr	Sc	V	Ва	Rb	Sr	Zr	Y	Nb	Ga	Cu	Zn	Pb	La	Ce	Th	U	Co	LOI	Fe ₂ O ₃	F
77114*	4925350N	550	basaltic andesite	Teob	55.56	16.59	0.96	7.98	0.14	8.48	6.38	0.95	2.82	0.14	nd	356	24	nd	206	30	229	nd	nd	nd	nd	nd	nd	nd	11	24	nd	nd	35	nd	nd	n
	510600E																																			
29-WF-08	4924870N	1120	basaltic andesite	Teob	55.74	16.66	0.87	7.86	0.15	8.55	6.26	0.99	2.77	0.14	105	247	22	177	212	33.2	293	92	17.9	7.0	14.8	80	71	1	14	22	8.0	<0.5	29	2.25	2.80	5.
	510740E																																			
83-WF-08	4926740N	405	pyroxene basalt	Teob	51.67	17.09	0.85	8.58	0.15	11.21	7.50	0.65	2.16	0.14	34	180	32	255	136	11.2	458	69	13.7	5.2	16.5	72	77	3	13	19	1.8	< 0.5	31	2.60	3.64	5.
00 14/5 00	514450E	450	1 10 1 1	- ·	50.45	17 70	1.10	0.05	0.04	0.04	5 50			0.40			0.5	004		4.0	0.47		~~~		10.1	~~~	~~			10	1.0	0.5	05	1.00	4.00	-
86-WF-08	4922920N 518590E	450	basaltic andesite	Teob	53.15	17.76	1.16	9.65	0.21	9.61	5.58	0.36	2.36	0.16	33	80	35	201	117	4.3	347	92	23.0	7.7	18.4	99	98	1	11	19	1.3	<0.5	35	1.36	4.83	5.
94-WF-08	4923260N	560	basaltic andesite	Teob	52.57	15.98	0.96	9.32	0.17	11.01	7.22	0.56	2.11	0.11	37	176	34	281	97	7.5	392	63	15.8	4.6	15.2	102	81	4	9	14	<0.5	<0.5	35	2.48	3.16	6.
94-00	519570E	500	basallic andesile	Teob	52.57	15.50	0.90	9.52	0.17	11.01	1.22	0.50	2.11	0.11	57	170	54	201	51	1.5	392	05	15.0	4.0	13.2	102	01	4	9	14	×0.5	~0.5	55	2.40	5.10	0.
58-WF-08	4919950N	1620	pyroxene basalt	Teob	49.99	17.30	1.23	10.16	0.18	10.11	8.09	0.31	2.44	0.20	160	372	31	243	215	2	306	97	32.9	8.3	14.3	95	92	1	12	24	2	<0.5	44	3.09	3.86	6.
	510480E	.020	pyroxono baban	1000	10.00			10.10	0.10		0.00	0.01		0.20		0.2	0.	2.0	2.0	-	000	0.	02.0	0.0		00	02				-	0.0		0.00	0.00	0.
90-WF-08	4921320N	1140	gabbro	Tomg	51.54	17.59	1.59	10.07	0.18	10.10	5.28	0.69	2.63	0.32	15	55	28	275	155	14.5	385	105	26.2	9.3	17.6	126	82	2	13	25	<0.5	<0.5	26	4.06	4.98	5.
	514310E		-	-																																
82-WF-08	4920440N	640	gabbro	Tomg	50.02	17.82	1.59	10.51	0.18	10.43	6.07	0.47	2.64	0.27	22	73	27	288	113	8.5	380	89	23.6	7.9	17.6	109	76	<1	10	20	<0.5	<0.5	30	3.73	4.61	5.9
	514800E																																			
68-WF-08	4917770N	1740	basaltic andesite	Teoi	52.96	15.58	0.87	8.66	0.17	11.09	8.07	0.55	1.91	0.14	54	273	33	249	128	13.6	481	73	15.5	5.3	14.5	96	81	3	13	23	1.9	0.9	33	3.09	3.50	5.
	510550E																																			
70-WF-08	4916920N	1140	diabase	Teoi	49.88	19.55	1.27	9.75	0.17	11.78	4.55	0.42	2.43	0.19	31	85	34	319	188	5.4	460	85	20.0	6.2	18.2	185	79	1	13	21	2.2	<0.5	32	2.05	4.17	5.
	512890E																																			
71-WF-08	4916800N	1120	pyroxene basalt	Teoi	50.57	16.40	1.03	9.50	0.18	11.18	8.28	0.47	2.20	0.20	73	249	32	267	147	7.3	435	67	17.1	5.2	15.3	60	82	1	13	21	0.8	0.7	38	2.33	3.43	6.1
	512850E												. ==																							-
46-WF-08	4915920N	1700	pyroxene basalt	Teoi	53.11	15.05	0.84	8.86	0.15	10.96	8.49	0.61	1.78	0.14	63	332	37	257	145	11.6	432	78	14.1	5.0	14.1	100	87	4	11	19	1.2	<0.5	36	2.62	3.02	5.9
49-WF-08	511780E 4915930N	1380	nurevene beeelt	Tasi	53.17	45 47	0.07	8.68	0.17	11.37	7.76	0.69	1.97	0.15	61	340	34	260	140	16.8	457	70	14.2	4.7	13.8	90	82	3	13	20	3.9	<0.5	35	1.30	3.07	5.
49-WF-06	4915930N 513900E	1360	pyroxene basalt	Teoi	53.17	15.17	0.87	0.00	0.17	11.37	7.76	0.68	1.97	0.15	01	340	34	200	140	10.0	497	70	14.2	4.7	13.0	90	02	3	15	20	3.9	<0.5	30	1.30	3.07	5.
50-WF-08	4913590N	880	ash-flow tuff	Toth	69.86	14.80	0.62	4.51	0.08	3.40	1.21	1.74	3.65	0.12	1	16	13	95	496	42 5	185	223	31.4	10.1	12 5	74	52	4	21	42	53	13	4	2.84	2.69	1.
30-111-00	515570E	000	don-now tun	Tour	05.00	14.00	0.02	4.51	0.00	0.40	1.21	1.74	0.00	0.12		10	15	55	400	42.5	105	220	51.4	10.1	12.5	14	52	7	21	72	0.0	1.5	7	2.04	2.00	
51-WF-08	4915730N	1400	basalt	Tomb	51.14	14.55	2.66	13.49	0.27	8.75	4.18	0.67	3.35	0.94	3	15	37	243	305	9.2	363	136	38.4	9.8	19.9	36	123	2	15	37	2.7	<0.5	32	2.48	4.92	8.
	515190E																																			
78BR36*	4915640N	1180	basalt	Tomb	51.20	14.90	2.66	13.04	0.30	8.60	4.11	0.54	3.59	1.06	nd	13	41	nd	262	nd	nd	nd	nd	nd	nd	nd	nd	nd	17	44	nd	nd	nd	nd	nd	n
	516740E																																			
93-WF-08	4917160N	760	basalt	Tomb	51.09	14.82	2.68	13.29	0.27	8.91	4.08	0.61	3.26	0.98	2	19	38	257	221	19.7	355	143	40.1	10.1	19.4	38	137	1	12	36	1.1	<0.5	32	2.51	3.15	10
	518290E																																			
78BR34*	4915650N	720	basalt	Tomb	51.19	14.95	2.66	12.96	0.37	8.62	4.15	0.48	3.58	1.04	nd	20	39	nd	299	nd	nd	nd	nd	nd	nd	nd	nd	nd	17	41	nd	nd	nd	nd	nd	n
	519580E																																			
78SH41*	4916120N	700	basalt	Tomb	50.76	14.95	2.53	13.06	0.26	8.83	4.71	0.45	3.57	0.88	nd	nd	nd	nd	302	15	352	nd	nd	nd	nd	nd	nd	nd	17	43	nd	nd	nd	nd	nd	n
	519910E																																			
45-WF-08	4915930N	2120	basalt	Tomb	51.19	14.54	2.64	13.41	0.26	8.75	4.20	0.65	3.40	0.96	2	15	33	250	234	13.8	352	144	39.7	10.6	20.4	39	133	3	16	34	0.7	1.1	33	1.69	3.13	10
70011401	510940E	4400	1 10 1 10	. .	50.40	10.00	4.00	0.75	0.04	0.47	4.00			0.50					10.1	40	0.1.0	and a	and a						47				=0		and a	
78SH40*	4920430N	1120	basaltic andesite	Tmpb	53.42	16.22	1.80	9.75	0.21	8.47	4.68	1.01	3.92	0.52	na	70	32	na	401	13	612	nd	nd	nd	nd	nd	nd	nd	17	39	nd	nd	70	nd	nd	n
	519780E																																			

OPEN-FILE REPORT O-09-10

Preliminary Geologic Map of the Waterloo 7.5' Quadrangle, Linn County, Oregon

By Mark L. Ferns and Jason D. McClaughry

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> Figure 3. Total alkalis versus silica (TAS) classification of whole-rock x-ray fluorescence analyses from Table 1.

