

Samples recovered from the ABE vent fields on TUIM05MV, April-May 2005

Sample Number J2-	VV Event #	Date/ Time	Position (X,Y)	Nav version #	Lat/lon (origin-20 -50.00 -176 -16.00)	Vehicle depth (m)	Vehicle hdg	Vehicle altitude (m)	Sample Type/collection method	Contact person	Comments
128-1-R1	17745	04/13 07 02	7925, 7958	April- May 05		2144.684	297.12	2.838	Andesite/grab	Meg Tivey	Piece of andesite from highly fissured volcanic tabular flow
128-1-R2	17837	04/13 07 11	7925, 7958	April- May 05		2144.691	323.61	2.838	Relict sulfide/grab	Meg Tivey	Sample of relict sulfide spire from small chimney complex. Empty mussel shells around spires.
Mkr18	19159	04/13 10 19	7931, 7945	April- May 05		2142.163	203.6	2.838	Marker 18		Active (> 1 m diameter) flange structure with diffuse flow.
128-2-R1	19240	04/13 10 23	7931, 7945	April- May 05		2142.088	184.41	2.838	Active sulfide flange/grab	Meg Tivey	Edge piece of flange. Largely dendritic light-grey sulfide w/ white upper surface coating. T ~ 137–141 °C.
128-3-W1-IGT8	19890	04/13 11 42	7894, 8015	April- May 05		2140.183	238.02	2.838	IGT8 water sample	Geoff Wheat, Jeff Seewald, Mike Mottl	From top of active <i>spire</i> , w/ white patchy coating. Tmax 325 °C
128-3-W2-IGT7	19905	04/13 11 50	7894, 8015	April- May 05		2140.156	238.2	2.838	IGT7 water sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Replicate fluid sample, same orifice. Temp 312.6 °C. No sulfide pair?
Mkr 19	19947	04/13 11 59	7894, 8015	April- May 05		2140.17	256.56	2.838	Marker 19		Locus of sampling here. Two major

			(2140m, 238)								active chimneys (one mound, one spire)
128-3-R1	20014	04/13 12 32	7894, 8015	April- May 05		2139.845	254.21	2.838	Active sulfide chimney/grab	Meg Tivey	3 or 4 pieces from sulfide <i>mound</i> . Fine-grained Fe/Zn (?) sulfide w/ anhydrite matrix and cpy (?) conduit lining
128-3-W3- Mred	20054	04/13 12 37	7894, 8015	April- May 05		2139.912	250.6	2.838	Major water sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Complement to chimney sample 128-3-R1 from sulfide <i>mound</i> . No temp data.
128-3-W4- Mgreen	20084	04/13 12 46	7894, 8015	April- May 05		2139.838	250.71	2.838	Major water sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Replicate water sample from same orifice. No T data.
128-3-B1	20134	04/13 13 09	7894, 8015	April- May 05		2139.804	242.85	2.838	Shrimp/slurp	Stacy Kim	Shrimp in proximity to active vent of sulfide <i>mound</i> .
128-3-B2	20193	04/13 13 24	7894, 8015	April- May 05		2140.292	224.55	2.838	Mussels/grab	Stacy Kim	<i>Bathymodiolus</i> (?) mussels at base of high T, focused vent chimney
128-4-B1	20284	04/13 13 58	7872, 8018	April- May 05		2131.968	264.2	4.388	Mussels/grab	Stacy Kim	Mussels living on andesitic basement, with diffuse flow through fissures.
Mkr 15	20319	04/13 14 03	7873, 8017	April- May 05		2132	249	3	Marker 15		Fissured basement, small spires, mussels.
128-4-B2	20337	04/13 14 14	7873, 8017	April- May 05		2132.87	246.69	2.163	Bivalve (w/ andesite) /grab	Stacy Kim	Mussels collected from volcanic lavas. Possible <i>Gorgonia</i> coral?
128-4-W1- IGT3	20355	04/13 14 21	7872, 8017	April- May 05		2132.05	251.99	2.575	IGT3 water sample	Geoff Wheat, Jeff	Diffuse flow from mussel patch. T ~

										Seewald, Mike Mottl	12°C (stable)
128-4-W2- IGT4	20403	04/13 14 38	7872, 8017	April- May 05		2132.287	256.16	2.288	IGT4 water sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Replicate fluid sample. Same flow region. T ~ 11.7 °C
128-4-B3	20500	04/13 15 10	7872, 8015	April- May 05		2131.778	310.88	4.951	Crabs/slurp	Stacy Kim	From diffuse flow area. Two possible species incl. <i>Galatheid</i> (?) crabs.
128-4-B4	20587	04/13 15 55	7870, 8014	April- May 05		2132.592	312.69	4.126	Barnacles (w/ andesite) /grab	Stacy Kim	Edge of diffuse flow area, attached to andesite
128-4-B5	20603	04/13 16 05	7870, 8014	April- May 05		2132.605	311.4	3.738	Anemone (w/ andesite) /grab	Stacy Kim	Plus barnacles. From brecciated andesite (or sulfide?)
128-5-R1	20666	04/13 16 33	7896, 8005	April- May 05		2138.997	61.31	3.088	Active sulfide chimney/grab	Meg Tivey	Friable, beehive texture sulfide chimney w/ white (microbial) coating.
128-5-R2	20687	04/13 16 40	7895, 8005	April- May 05		2139.004	61.82	3.088	Active sulfide chimney/grab	Meg Tivey	Base of spire of upper chimney sample 128-5-R1. At base of black smoker complex.
128-6-B1	20794	04/13 17 21	7906, 7998	April- May 05		2139.126	11.47	4.326	Snails/grab	Stacy Kim	<i>Ifremeria</i> (?) snails on periphery of sulfide mound w/ black smoker flow.
128-7-R1	21016	04/13 18 49	7831, 7797	April- May 05		2146.839	281.9	5.251	Andesite/grab	Meg Tivey	Flow of jagged volcanic lava from vertical wall/outcrop.
128-8-R1	21451	04/13 20 37	7850, 7783	April- May 05		2152.77	220.07	1.538	Active sulfide chimney/grab	Meg Tivey	From cluster of small, active chimneys T(int) ~ 210 °C; T(ext) ~ 12 °C

128-8-R2	21652	04/13 20 57	7850, 7783	April- May 05		2153.455	333.37	0.925	Inactive sulfide chimney/grab	Meg Tivey	Inactive spire from edge of complex. Exterior has Fe-oxide staining.
Mkr 16	21640	04/13 20 57	7850, 7783	April- May 05		2154.071	227.49	1.663	Marker 16		Center of sulfide chimney complex.
Mkr 17	21718	04/13 21 14	7826, 7751	April- May 05		2145.24	209.04	5.201	Marker 17		Base of complex of small chimneys, some minor activity.
129-1-R1	22650	04/14 10 16	7652, 7461	April- May 05		2131.189	46.17	6.351	Active sulfide chimney/grab	Meg Tivey	Friable Zn-sulfide?, beehive texture w/ anhydrite cementing. Sph lined conduit?
129-1-W1-IGT3	22756	04/14 10 35	7652, 7461	April- May 05		2131.189	48.71	6.351	IGT3 water sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Focused white smoker chimney. Pair for sulfide 129-1-R1 (R10). T ~ 264 °C (variable T)
129-1-W2-IGT4	22 811	04/14 10 55	7652, 7461	April- May 05		2131.446	56.26	6.351	IGT4 water sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Replicate orifice, same sample. T ~ 302 °C.
Mkr 20	22829	04/14 11 00	7652, 7461	April- May 05		2132.775	35.78	6.351	Marker 20		At base of smoker complex.
129-1-R2	22861	04/14 11 08	7654, 7455	April- May 05		2135.025	101.73	6.351	Andesite/grab	Meg Tivey	Base smoker complex. Ropy andesite ~ 10 m downhill from sulfide complex.
129-1-R3	22908	04/14 11 22	7668, 7455	April- May 05		2134.91	235.3	6.351	Relict sulfide chimney/grab	Meg Tivey	Relict sulfide from base of smoker complex.
129-2-B1	23255	04/14 13 35	7714, 7412	April- May 05		2136.652	198.88	6.351	Crabs/slurp	Stacy Kim	<i>Galatheid</i> crabs collected on andesite using slurp gun.

129-3-R1	23797-23807	04/14 17 31	7853, 7771	April- May 05		2151.997	354.64	2.363	Active sulfide chimney/grab	Meg Tivey	Beehive white smoker spires from small chimney complex; near marker 16
129-3-W1-IGT5	23913	04/14 18 12	7853, 7771	April- May 05		2152.736	146.36	2.85	IGT5 water sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Grey smoker. T ~ 288 °C. Fluid pair to sulfide 129-3-R1.
129-3-W2-IGT6	23967	04/14 18 35	7853, 7771	April- May 05		2153.007	145.35	2.813	IGT6 water sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Replicate fluid sample, same orifice. No T data.
Mkr 21	24361	04/14 20 00	7833, 7757	April- May 05		2148.941	314.02	2.613	Marker 21		Center of active, diffuse flow sulfide w/ large populations of mussels, snails.
129-4-R1	24609	04/14 20 21	7827, 7756	April- May 05		2144.027	289.55	3.2	Andesite/grab	Meg Tivey	Vesicular andesite w/ Mn-oxide coating and large protuberances. Periphery of flow regions.
129-5-W1-IGT1	24823	04/14 20 53	7834, 7759	April- May 05		2149.191	276.69	4.038	IGT1 water sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Diffuse flow sample. Among <i>Ifremeria</i> snails. T~ 18 °C
129-6-W1-IGT2	24970	04/14 21 23	7826, 7756	April- May 05		2147.043	303.87	2.938	IGT2 water sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Diffuse flow sample. Among <i>Alviniconcha</i> snails. T ~ 98 °C.
136-2-R1	46671	05/02 06 05	7761, 7816	April- May 05		2125.271	187.62	4.776	Active sulfide chimney/grab	Meg Tivey	Small pieces of sulfide from focused, black smoker orifice. Part of larger complex.
136-2-W1-IGT5	46724	05/02 06 30	7761, 7816	April- May 05		2125.21	186.05	4.651	IGT5 water sample	Geoff Wheat, Jeff Seewald,	Fluid pair for sulfide 136-2-R1. T ~ 305 °C.

										Mike Mottl	
136-3-W1-Mred	46998	05/02 08 14	7895, 8015	April- May 05		2139.411	243.58	2.5	Major fluid sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Replicate fluid sample from sulfide mound, dive J2-128-3-W3/W4 (A2)
136-4-B1	47930	05/02 14 07	7524, 6914	April- May 05		2152.14	48.39	0.975	Octo-coral/grab	Stacy Kim	On ropey andesitic basement. Particles in water column, but no evident flow.
136-4-R1	47947	05/02 14 13	7254, 6914	April- May 05		2152.424	41.59	0.863	Andesite/grab	Meg Tivey	Ropey, vesicular andesite, w/ Mn- oxide (?) coating.
136-5-W1- IGT4	48385	05/02 16 55	7650, 7402	April- May 05		2132.138	286.35	2.888	IGT4 fluid sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Focused, high T black smoker flow. T ~ 300 °C. Nr marker 20.
136-5-W2- IGT6	48424	05/02 17 05	7650, 7402	April- May 05		2132.111	286.3	2.863	IGT6 fluid sample	Geoff Wheat, Jeff Seewald, Mike Mottl	Replicate sample, same orifice. Bad thermocouple; no T data.
136-5-R1	48525	05/02 17 40	7650, 7415	April- May 05		2128.26	234.39	6.401	Inactive sulfide chimney/grab	Meg Tivey	Sulfide from same complex, but not a fluid-chimney pair. No flow evident.
136-5-B1	48581	05/02 18 00	7650, 7402	April- May 05		2132.856	318.37	2.525	Sediment/scoop	Stacy Kim	Sediment from scoop, near dead bivalves. Small sulfide fragments?
136-6-R1	48856	05/02 19 55	7642, 7398	April- May 05		2134.131	40.44	4.601	Relict sulfide/grab	Meg Tivey	From inactive chimney cluster. Black/grey colored sulfide w/ ~ 2 mm thick Fe/Mn oxide crust.