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REFERENCES

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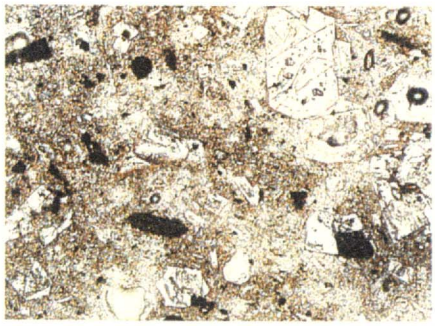
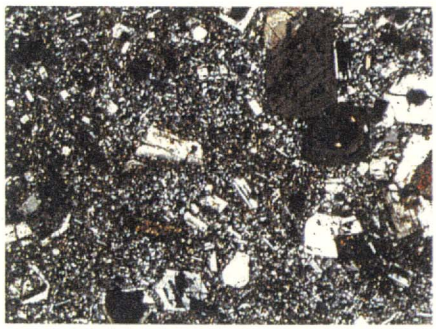
PHOTOGRAPHS

A37T Andesite (Open nicols)

A37T Andesite(Cross nicols)

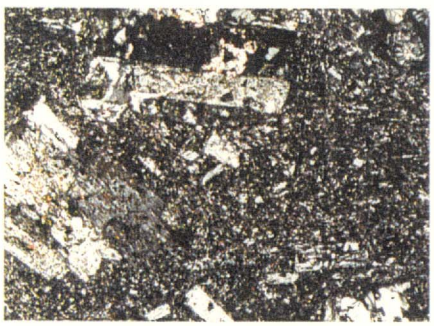


B15 Dacitic rock (Open nicols)

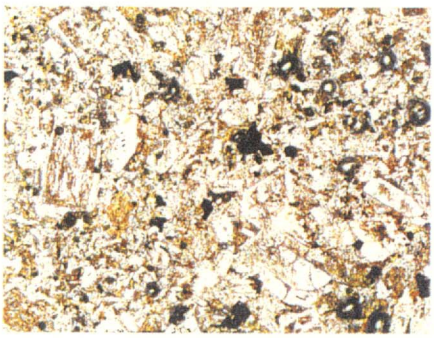


B15T Dacitic rock(Cross nicols)

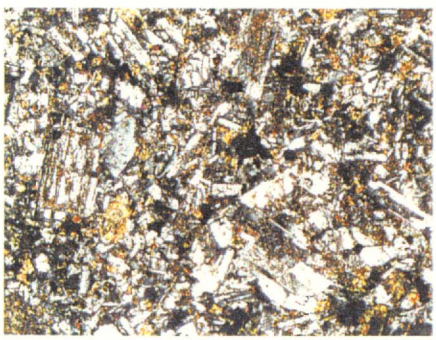
D27T Andesite (Open nicols)



D27T Andesite(Cross nicols)



B25T Basalt (Open nicols)



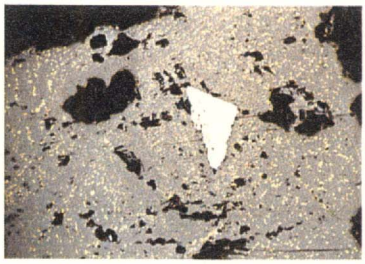
D25T Basalt(Cross nicols)

Scale 1.0mm

Photo 1 Micrographs of Thin Sections

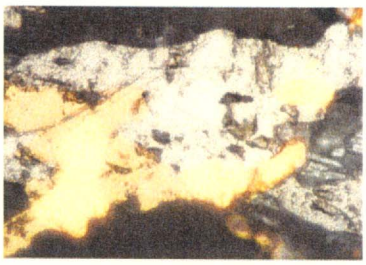
A27P 0.5mm

(Chalcopyite, Hematite)



A83P 0.5mm

(Sphalerite/Chalcopyrite, Pyrite)

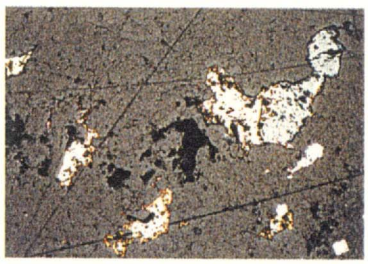


A102P 0.1mm

(Electrum,Pearcite)

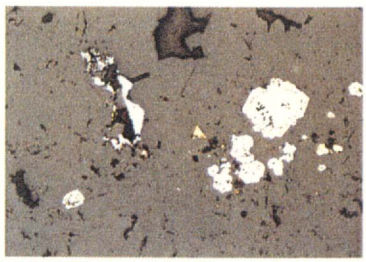
A111P 0.5mm

(Hematite, Limonite)



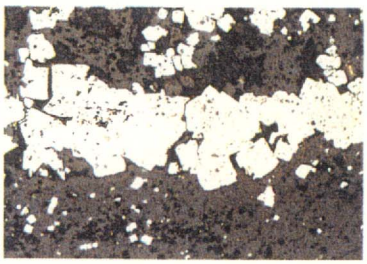
A127 0.5mm

(chalcopyrite, sphalerite, pyrite)



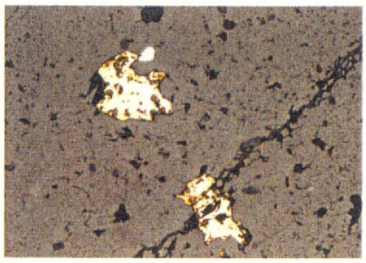
B10P 2.5mm

(pyrite>chalcopyrite)



E35P 0.5mm

(pyrite)

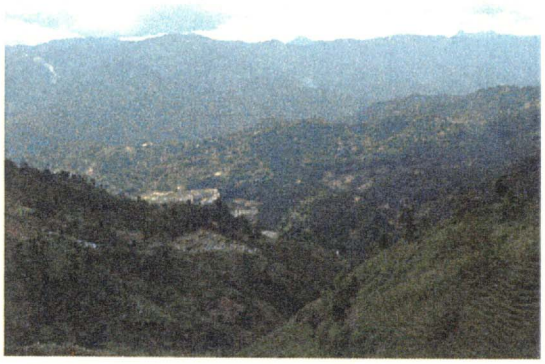


F14P 0.5mm

(chalcopyrite , pyrite)

Note: all photographs are taken by open nicols

Photo 2 Micrographs of Polished Sections

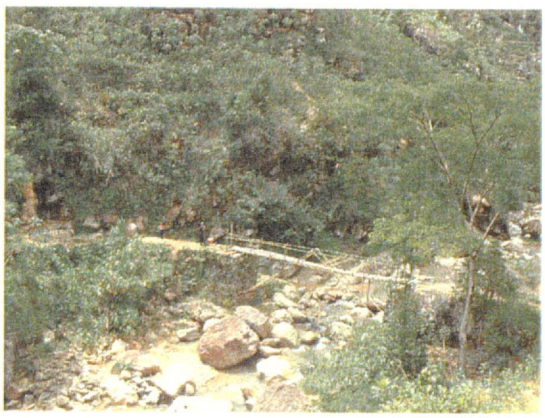


(1) Survey Area, South of Ponorogo

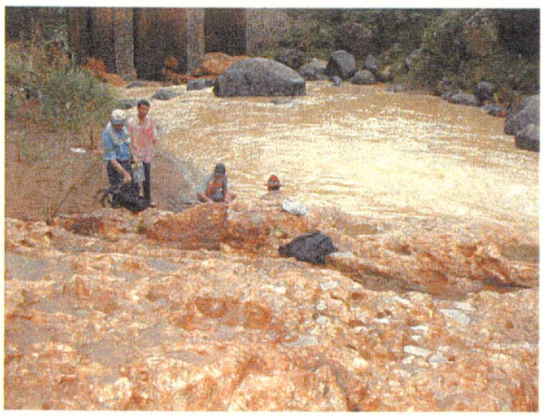
(2) Survey Area, Kali Panggul

(3)Road in the Southern Part of the Survey Area

(4)Main Road between Ponorogo and Pacitan



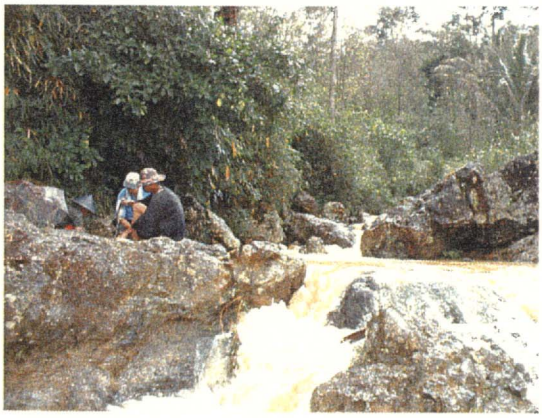
(5) A Branch of Kali Melikan



(6) Alteration Zone along Kali. Pule

Photo 3 Geological and Geochemical Survey (1)

(7) Stream Sediments Sampling near Pule



(8) Stream Sediments Sampling near Wonocoyo

(9) Small Sacle Mining near Kebonsari

(10) Trench at Wonogiri

(11) Field Inspection near Kali Lorog

(12) Discussion on the Field Survey Results at DMRI Office

Photo 4 Geological and Geochemical Survey

APPENDIX

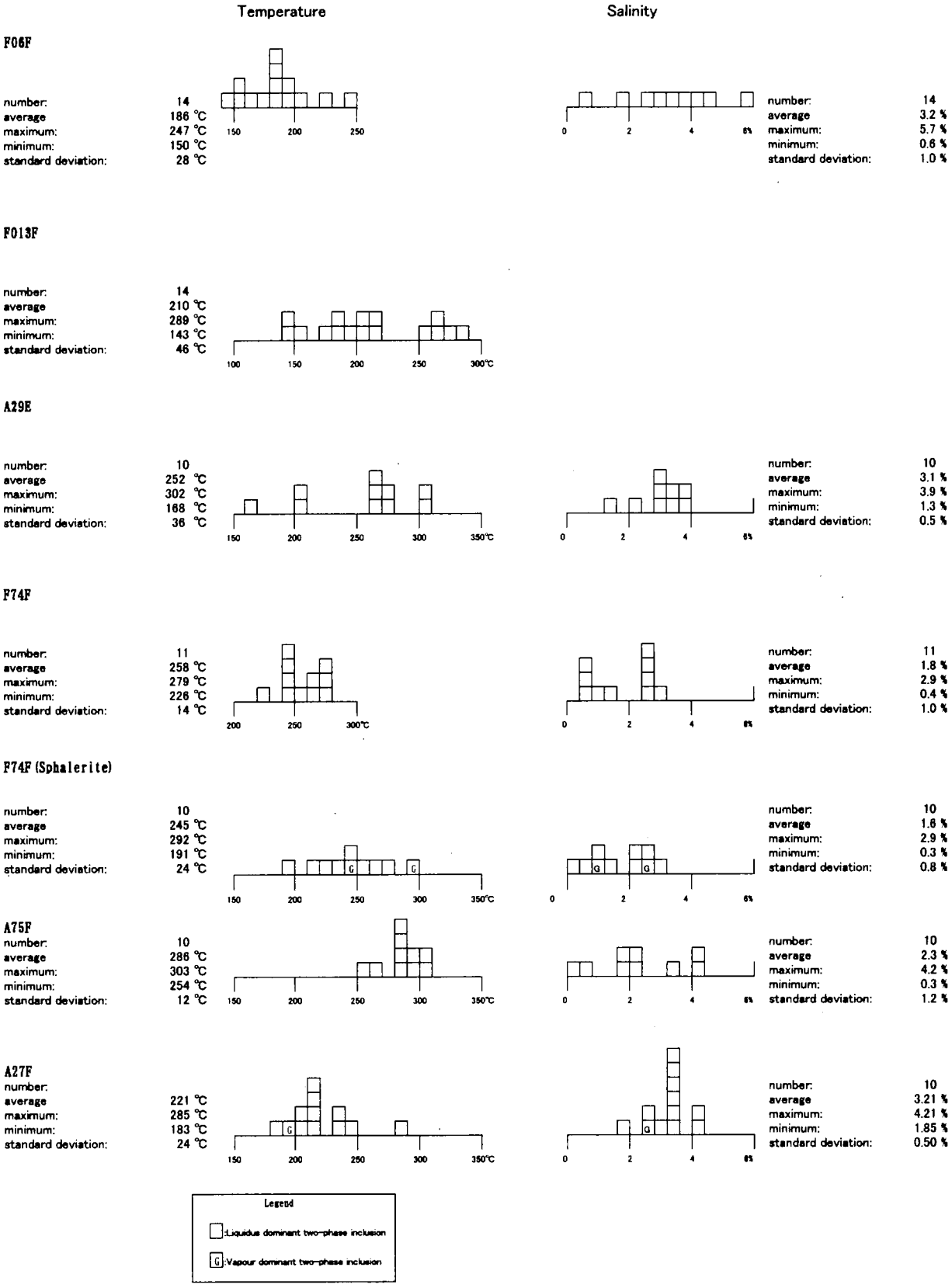
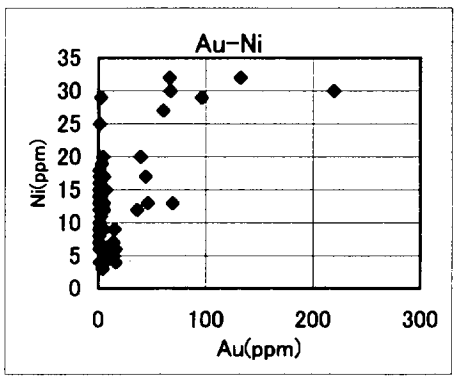
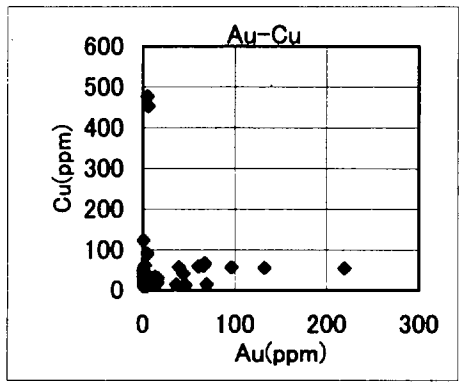
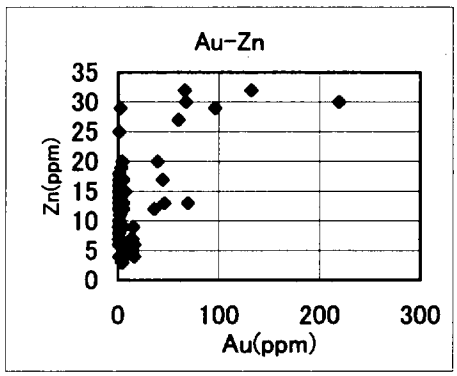
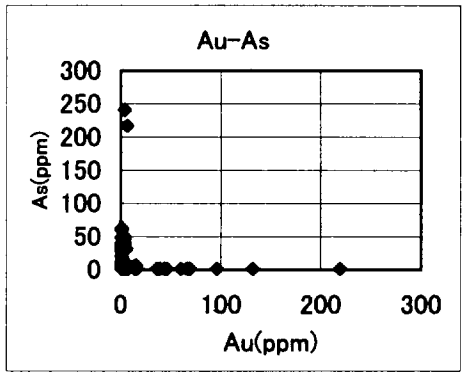


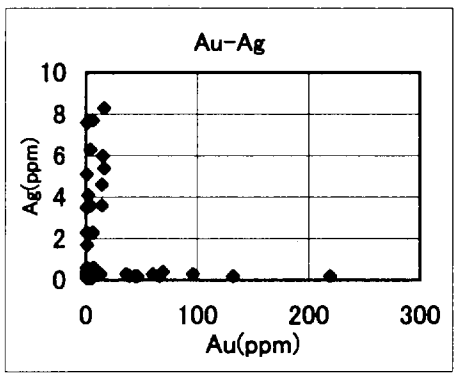
Fig. A-1 Histogram of Homogenization Temperatures and Salinities of Fluid Inclusions

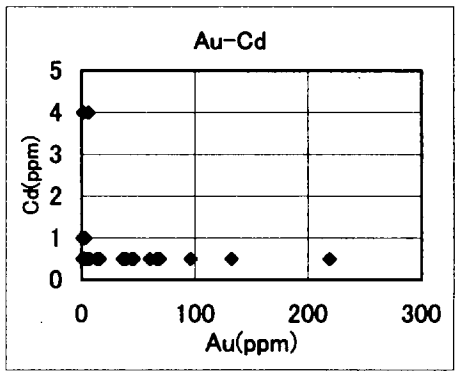


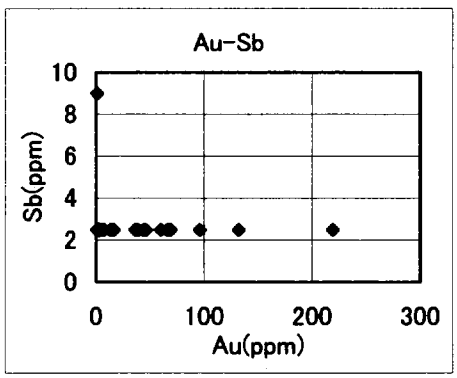












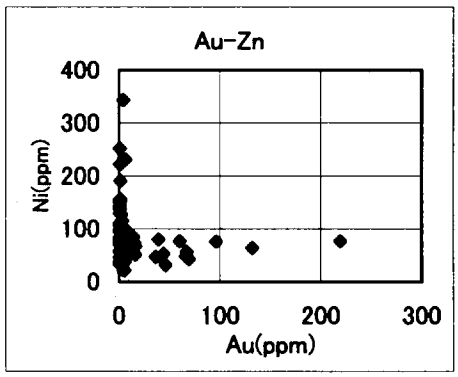


Fig. A－2 Correlations between Elements of Geochemical Samples (1/2)

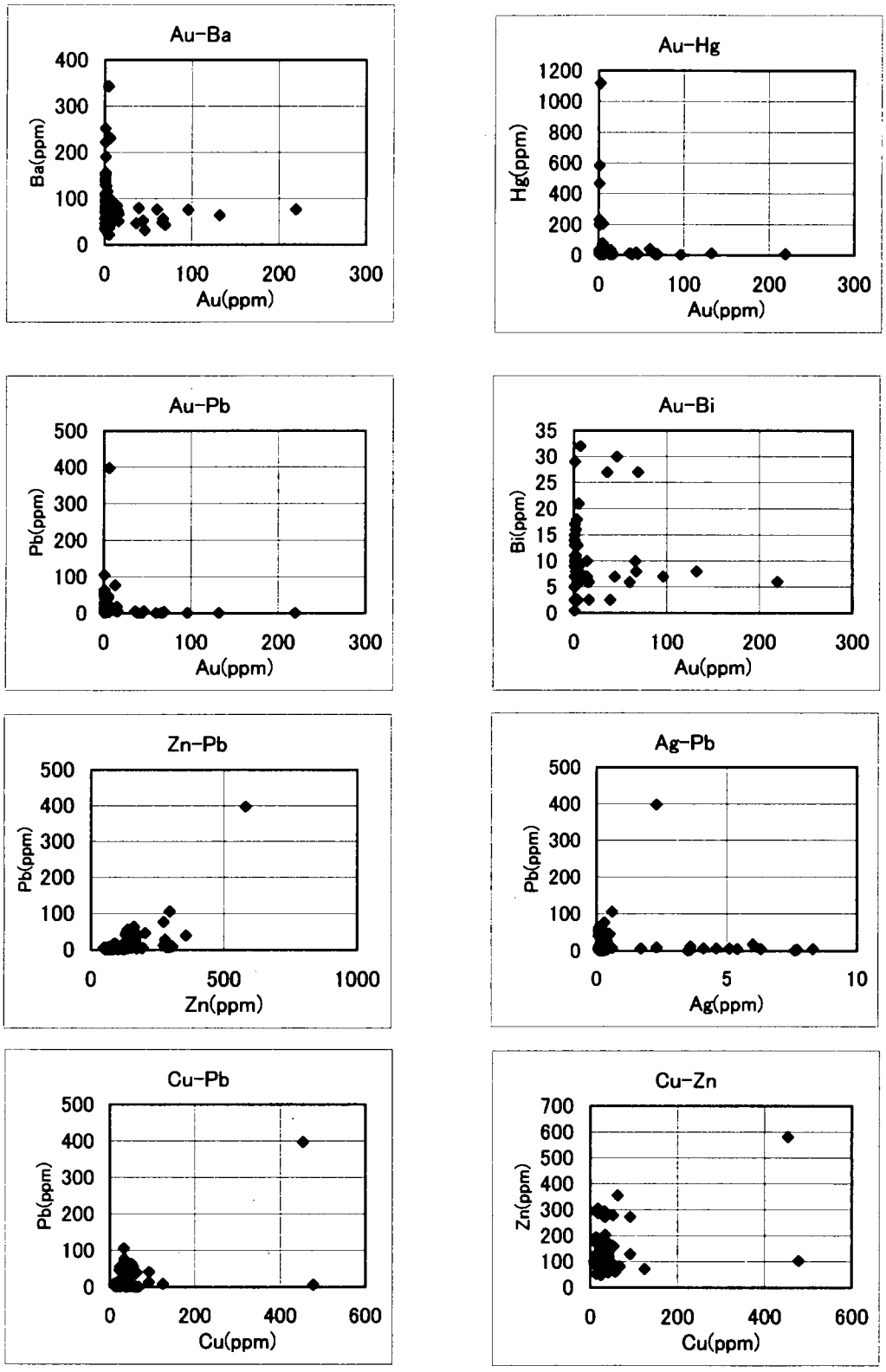


Fig. A－2 Correlations between Elements of Geochemical Samples (2/2)

Table A-1 Results of Microscopic Observation of Thin Sections

Location			Rock name	Texture	Phenocryst or fragment													Alteration Mineral									
Sample No.	UTM (E)	UTM (N)			ol	cpx	opx	pl	op	hb	bio	kf	qz	zr	ap	glass	Lithic fragment	qz	leu	ser	kao	chl	cal	sm	ep	zeo	pl	pre
A02T	531,148	9,108,715	Dacite	porphyritic				△	·		×		○					◎		△		·		·				
A14T	536,385	9,106,208	Altered Andesite	porphyritic				◎	△	·?					×			○		·		△	○					
A17T	540,020	9,107,548	Olivine basalt	porphyritic	·	·		○	·													·	·	×				
A23T	538,800	9,105,375	Andesitic-basaltic tuff(?)	clastic				○	△									◎		△		○			△			
A25T	537,500	9,103,600	Dacite	porphyritic				◎	×			△	◎												·			
A32T	535,161	9,095,442	Dacitic tuff	clastic					△				○					◎							·			
A37T	568,000	9,108,000	Two pyroxene andesite	pilotaxitic		○	○	◎	·		×				×			△				×	·		·			
A39T	564,148	9,108,167	Basalt	porphyritic		○	·	◎	·				·					○				·	·		·			
A49T	542,605	9,108,680	Hornblende andesite	porphyritic				◎	·	△	·		△		×							·						
A54T	560,084	9,093,389	Pyroxene andesite	porphyritic		△		◎	·		×				×							·	×		×			
A57T	555,048	9,098,005	Diorite	equigranular		△		◎	·	△			·		×							·			×			
A63T	557,067	9,098,964	Diorite	equigranular		△		◎	·	○					×							△						
A67T	539,523	9,098,778	Andesite-dacite	aphyric				◎	·				△		×							△			·			
A109T	507,046	9,122,272	Basalt	-(amygdaloidal)				◎	·				·		×	△?		○		·		○	△		·	○		
A115T	538,482	9,090,478	Andesite	intergranular		△?	△?	◎	·	△					×			○				△	·					
B02T	532,995	9,116,078	Andesite	intergranular		◎		◎	·						×	△?						·		·				
B03T	535,219	9,113,310	Dacitic tuff	clastic,welded		·?		○	·				△			◎	△					·		·				
B04T	535,230	9,114,384	Andesite	intergranular		◎		◎	·						×	△?						·		·				
B05T	540,407	9,115,926	Tuffaceous sandstone	clastic				○	·		·	△	○		×		·				× ill		·	·	·				
B08T	567,606	9,118,668	Andesite	pilotaxitic		○		◎	·						×			△				·	·	·	·			
B09T	566,079	9,119,446	Sandstone	clastic		△		◎	△	·?		△	◎				·				·ill				·				
B14T	518,436	9,090,162	Andesite-dacite	intergranular				◎	△	○?		·	○		×			△		·		△	·	·				
B15T	521,167	9,090,364	Andesite-dacite	intergranular				◎	△	○?			·		×			△		·		·	×	×				
B17T	523,268	9,093,134	Andesite	intergranular				◎	·	△?			·		×			·		·		△	×	×				
B20T	547,550	9,095,946	Andesite	porphyritic		△?		◎?	·						×			△		·		△	△	·	·		×	
B22T	539,879	9,096,334	Porphyritic andesite	porphyritic				◎	·						×			·		·		△	△	·	·			
B24T	546,365	9,096,586	Dacite	-(silicified)				○?	△				○?					◎		○								
B25T	546,775	9,096,232	Dacite	porphyritic				○	·			△	◎		·					·		·	·	·				
C02T	569,025	9,082,925	Andesite	porphyritic		△		◎	·						·					×		·	△	×	·			
C15T	542,147	9,094,884	Andesite	clastic		△		◎	·				△									·	·	·		·		
C16T	542,995	9,095,252	Andesite	porphyritic				○	·									·				○	·		△		◎	
C23T	509,637	9,116,550	Pyroxene andesite	porphyritic		△		◎	·			·?			·			·		·		△	·	·	·			·
C25T	506,556	9,116,308	Andesitic tuff breccia	porphyritic				◎	·			·				×?	○	·				·	△		·			
C26T	508,281	9,118,534	Altered rock	-(silicified)				○?	△	△?								◎					◎					
C28T	509,216	9,120,192	Andesite	porphyritic				◎	·							△?		·				△	·		△			·
D10T	561,185	9,107,208	Dacite	porphyritic				◎	·		△?		○			·?		·				△						
D11T	563,729	9,117,228	Basalt	hyalopilitic				◎	·							△		△					△					
D12T	546,585	9,102,560	Tuffaceous sandstone	clastic				○	·			·	○	×	×										·			
D16T	542,998	9,102,176	Porphyriy	equigranular				◎	·		·?	△	△							·		·	·					
D25T	543,536	9,091,066	Andesite-basaltic andesit	porphyritic		△		◎	·							·?				·		○	·	△				

Table A-1 Results of Microscopic Observation of Thin Sections

Location			Rock name	Texture	Phenocryst or fragment													Alteration Mineral									
Sample No.	UTM (E)	UTM (N)			ol	cpx	opx	pl	op	hb	bio	kf	qz	zr	ap	glass	Lithic fragment	qz	leu	ser	kao	chl	cal	sm	ep	zeo	pl	pre
D27T	543,609	9,090,444	Andesite	porphyritic				◎	・		・?					・?		・		・		・	・	△			○	
D28T	539,724	9,101,280	Dorelite	porphyritic		△		◎	・											・		・	・		・		○	
D30T	539,142	9,102,254	Fine granodiorite	equigranular				◎	・	△		△	○	×	・					×		・	×		・			・
D33T	541,067	9,101,002	Rhyolitic tuff breccia	clastic				○	△			△	◎				○	・	×	・		・	○		・			
E22T	536,596	9,096,116	Dacitic tuff	clastic				○	・			△	◎				◎	△		△		・	・	・			△	
E23T	536,596	9,096,116	Dacitic tuff	clastic				○	・			△	○				○	○		△							△	
E29T	507,250	9,128,786	Hornblende andesite	hyalocrystalline				◎	△	○			△		・	△		・				・		・	×			
F06T	542,608	9,109,588	Basalt	hyalopilitic				○	・							△?		○		△		・		△			・	
F16T	536,089	9,111,176	Tuffaceous sandstone	clastic				○	・							△	◎	◎		○	○	・		・			・	
F25T	504,225	9,113,714	Pyroxene andesite	glomeroporphyritic		△		◎	・			・	・		×	△						・	△	×				

ol:olivine, cpx:clino-pyroxene, opx:ortho-pyroxene, op:opaque mineral, hb:hornblende, bio:biotite
kf:potash-feldspar, qz:quartz, ap:apatite, frag:fragment,leu:leucoxene, ser:sericite, kao:kaolin, cal:calcite, sm:smectite, ep:epidote
chl:chlorite, zeo:zeolite, pl:plagioclase, pre:prehnite, ill: illite, zr: zircon
Amount:◎>○>△>・>×

Table A-2 Results of Whole Rock Analysis

Element	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	Sum	UTM (E)	UTM (N)	Rock name
Scheme Code	XRF100	XRF100	XRF100	XRF100	XRF100	XRF100	XRF100	XRF100	XRF100	XRF100	XRF100	XRF100	XRF100			
Analysis Unit	%	%	%	%	%	%	%	%	%	%	%	%	%			
Detection Limit	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01			
A14R	64.00	15.30	4.17	1.85	2.40	3.58	5.35	0.18	0.55	0.17	0.01	2.25	99.80	536385	9106208	welded tuff? -> dacitic
A25R	67.40	14.50	3.75	1.33	4.20	1.38	4.49	0.12	0.47	0.14	0.02	2.35	100.20	537500	9103600	quartz porphyry ? ->dacitic
A37R	51.70	18.60	8.81	3.59	2.75	0.56	9.01	0.19	0.76	0.20	<0.01	2.60	98.70	568000	9108000	welded tuff ? -> rhyolitic
A39R	71.70	13.80	3.14	0.24	4.43	1.56	3.20	0.10	0.56	0.14	0.02	0.30	99.10	564148	9108167	andesitic volcanic breccia ->basaltic
A49R	62.60	17.40	5.74	1.87	3.79	1.05	5.59	0.09	0.53	0.14	<0.01	1.25	100.00	542605	9108680	coarse grained andesite->andedite
A54R	65.60	15.20	6.14	1.28	2.83	1.14	5.46	0.13	0.69	0.13	0.01	1.50	100.20	560084	9093389	quartz porphyry->dacitic
A57R	50.40	17.40	10.50	6.25	2.21	0.16	10.70	0.20	0.84	0.09	0.02	1.35	100.20	555048	9098005	microdiorite->dorelitic
A63R	50.20	16.00	10.00	5.26	2.54	0.46	12.80	0.20	1.35	0.09	0.02	1.10	100.00	557067	9098964	microdiorite->dorelitic
A67R	59.00	15.30	0.74	5.04	4.10	0.37	9.09	0.22	1.34	0.36	<0.01	3.55	99.10	539523	9098778	basalt->andesite
A115R	62.40	15.70	5.03	2.36	2.84	1.90	6.20	0.15	0.59	0.15	<0.01	2.80	100.10	538482	9090478	porphyry->andesitic
B15R	65.60	16.70	6.00	1.26	3.51	0.79	4.49	0.15	0.43	0.13	<0.01	1.05	100.10	521167	9090364	hornblend dacite; grey (intrusive rock)-> dacite
C15R	57.80	15.50	3.10	4.62	3.73	1.34	7.86	0.15	0.87	0.19	<0.01	5.10	100.20	542147	9094884	pale green pach andesite->andesite
C16R	49.10	17.70	3.93	7.89	2.95	1.20	11.20	0.32	0.93	0.17	<0.01	4.75	100.10	542995	9095252	microdiorite->dorelitic
D10R	69.10	14.10	3.26	0.93	3.68	1.83	4.78	0.05	0.63	0.13	<0.01	0.95	99.50	561185	9107208	andesite lava->dacitic
D11R	66.00	15.20	5.47	0.59	4.01	1.28	4.96	0.15	1.08	0.37	0.01	0.60	99.70	563729	9117228	andesite lava->dacitic
D25R	55.00	17.20	6.77	5.02	3.23	0.71	8.70	0.15	0.86	0.17	0.01	2.35	100.20	543536	9091066	basalt lava?->basltic andesite
D27R	64.30	15.90	3.71	2.48	4.72	0.84	5.80	0.09	0.62	0.14	<0.01	1.55	100.20	543609	9090444	andesite lava->dacite
D28R	48.10	18.70	5.84	5.85	5.17	0.53	10.10	0.22	0.95	0.18	<0.01	4.65	100.40	539724	9101280	dolerite dyke->trachytic basalt
D30R	61.70	16.10	5.34	2.66	4.12	0.31	7.11	0.24	0.73	0.13	<0.01	1.55	100.00	539142	9102254	fine diorite->andesite
E23R	76.80	12.90	0.21	1.31	2.57	1.57	2.07	0.08	0.23	0.03	0.03	2.45	100.20	536596	9096116	welded tuff (dacitic?)->rhyodacite

Table A-3 Results of Age Determination by K-Ar Method

Sample	UTM (E)	UTM (N)	Rock Name(Field mame -> Name based on whole rock	40Arrad(nl/g)	K(%)	40Arair(%)	Age(Ma)
A25D	537500	9103600	quartz porphyry ? ->dacitic	0.178	0.257	74.7	18.17 ± 1.7
A37D	568000	9108000	welded tuff ? -> rhyolitic	0.07	0.417	87.9	4.4 ± 1.1
A39D	564148	9108167	andesitic volcanic breccia ->basaltic	5.16	1.48	15.3	89.3 ± 2.5
A49D	542605	9108680	coarse grained andesite->andedite	0.105	0.07	72.1	38.7 ± 4.5
A63D	557067	9098964	microdiorite->dorelitic	0.096	0.11	91.5	22.8 ± 5.0
B15D	521167	9090364	hornblend dacite; grey (intrusive rock)-> dacite	0.174	0.942	69.0	4.8 ± 0.6
D10D	561185	9107208	andesite lava->dacitic	1.01	1.54	37.1	17.1 ± 0.8
D25D	543536	9091066	basalt lava?->basltic andesite	0.504	0.761	55.6	17.3 ± 1.5
D27D	543609	9090444	andesite lava->dacite	0.461	0.407	70.7	29.4 ± 4.5
D28D	539724	9101280	dolerite dyke->trachytic basalt	1.37	1.71	34.2	20.9 ± 0.7

Table A-4 Results of X-ray Diffraction Analysis

No.	UTM (E)	UTM (N)	Rock name	qz	Kf	pl	sm	chl	chl/sm	se	se/sm	ep	kao	pyr	ja	al	cal	ank	gyp	py	di	hm	X
A02X	531,148	9,108,715	tuff	◎		△		·		·													× 3.06
A03X	531,148	9,108,715	ore (5cm quartz)	◎		△			△														
A05X	532,447	9,109,917	silicified rock	◎				·		△													
A07X	533,615	9,108,666	andesite dyke	○		◎		△		·								·?					
A12X	535,549	9,108,239	fault gouge (andesite-basalt lava)	◎		△			·		·												·3.07
A14X	536,385	9,106,208	welded tuff?	◎		◎			·		·						·						
A18X	539,820	9,105,890	whitish argillic rock	◎		△			·	·							·						× 3.06
A20X	541,745	9,103,906	bleached andesite (pyrite)	◎		◎		·												·			·3.07, × 2.796
A21X	539,236	9,105,078	ore (pyrite zone 20cm)	◎					·		△									×?			
A23X	538,800	9,105,375	basalt-andesite	◎				○		·													
A24X	537,825	9,105,000	whitish argillic rock (andesite, pyrite diss.)	◎		△		·															
A28X	536,697	9,108,933	basaltic volcanic breccia	◎		○		△		·										×?			
A31X	535,003	9,095,377	quartz porphyry (white)	◎	·	○				·										·			
A32X	535,161	9,095,442	quartz porphyry	◎									△	·									
A33X	535,161	9,095,500	quartz gray argillic (pyrite) zone	◎	·	○			△		·									·			
A34X	569,574	9,109,192	andesite (argillic, white)	◎	·					△			△							×?			·4.85, ·2.85
A35X	569,699	9,109,097	fine tuff	◎	·	△			·														
A36X	569,680	9,111,393	basalt	△		◎			△					·?			·						
A38X	564,095	9,108,230	andesitic volcanic breccia	◎		△			△								·						
A40X	566,000	9,107,000	basalt	△		◎						·	△	△			·						
A41X	566,100	9,107,100	dacite (quartz porphyry), white argillized	◎		△			·				·	△									× 7.85, ·3.45
A46X	564,398	9,102,714	pule vein 0,30m	◎							·												
A53X	562,453	9,093,812	sandy tuff	◎							·												
A55X	560,084	9,093,389	diorite	◎		○			·								·						
A56X	561,560	9,094,683	lapilli tuff	◎				△			·						△						
A59X	554,565	9,097,577	dyke?	◎		◎			·	·													
A60X	554,578	9,098,927	pyrite diss.	△		◎		×		·										·	·		
A62X	556,367	9,099,077	diorite ,white argillic	◎						·													
A66X	549,976	9,098,625	basalt	◎		△																	
A67X	539,523	9,098,778	basalt	◎		○																	
A70X	540,323	9,098,124	andesite-basalt	◎		△											◎						
A73X	541,426	9,098,642	quartz pyite vein	◎		◎		·		·							·			·			
A80X	531,723	9,103,136	quartz porphyry? (white)	◎					·		·									·			
A85X	531,020	9,102,700	dacitic tuff (white)	◎		△														·			
A91X	554,721	9,093,022	silicified rock	◎				·			·						·			·			
A97X	485,684	9,138,552	andesite-basalt (coarse grained)	◎		○			·								·						
A98X	508,957	9,109,820	Punung:hematite argillic rock	◎						×													
A104X	508,926	9,109,840	Punung:quartz vein, with cp	◎				·		·												·?	·3.07
A106X	509,137	9,109,836	Punung East;quartz vein, with hematite	◎						×													
A109X	507,046	9,122,272	andesite (propylite)	◎		△	·						·?	·?			·			·			
A110X	527,464	9,121,064	whitish fine tuff	◎					·		·												
A115X	538,482	9,090,478	porphyry	◎		△														△			
A118X	529,987	9,112,424	tuff	◎		○							·					·					
A119X	531,716	9,111,010	clay vein 10cm	◎															·				
B11X	569,376	9,122,520	float of white altered andesite	◎		△																	
B14X	518,436	9,090,162	float of white altered porphyritic andesite	◎																			
B16X	521,270	9,092,874	float of clayey soft dacite porphyry	◎							△												
B17X	523,268	9,093,134	altered (silicified) hornblende andesite; grey, py-ser	◎		△														△			
B21X	540,282	9,096,092	float of altered soft dacite (?)	◎						·													
B23X	539,835	9,096,384	clayey altered host rock of quartz-py vein	◎							·		△		·				·	·			
B24X	546,365	9,096,586	float of altered soft dacite (?)	◎		△					·												
C06X	567,037	9,092,426	silicified rock	◎									○								x?		
C08X	567,210	9,087,122	silcified and argillized rock with pyrite	◎		·							·	·		·				×			
C09X	567,210	9,087,122	silicified rock with limonite	◎		·							·	·		·				·			·4.72

Table A-4 Results of X-ray Diffraction Analysis

No.	UTM (E)	UTM (N)	Rock name	qz	Kf	pl	sm	chl	chl/sm	se	se/sm	ep	kao	pyr	ja	al	cal	ank	gyp	py	di	hm	X
C20X	543,342	9,099,146	silicified rock with limonite	◎	・											・							・2.590(Kf?)
C21X	543,344	9,099,210	whiteish clay	◎							・												
C24X	509,609	9,116,573	silicified rock	◎													・			・			
C27X	509,216	9,120,192	quartz float	◎													×			・			
C29X	509,216	9,120,192	quartz float	◎																			
D01X	542,757	9,110,416	quartz float	◎						・										・			
D04X	558,196	9,117,650	felsic tuff	◎		△				・													
D06X	559,054	9,110,356	quartz width = 2cm	◎	△	○					・						・						
D08X	565,832	9,108,596	quartz float	◎																			
D13X	545,135	9,102,556	lapilli tuff alteration / weak argillization	◎		△				・			×?										
D14X	545,292	9,102,826	porphyry ? Alteration / weak argillization	◎		○		・		・										・			
D17X	543,066	9,102,218	fracture zone	◎				○												・			・3.18, ・2.384
D19X	512,399	9,096,818	tuff (andesite?) alteration / silicification	◎						・			・										
D20X	513,756	9,098,458	pumice tuff alteration / silicification	◎	△					・													
D24X	542,615	9,088,278	tuff breccia alteration / argillization			△							○						△	○			
D32X	540,915	9,102,004	tuff with pyrite	◎						△										△			
E01X	549,104	9,107,168	andesitic tuff breccia	◎		・					・		・										
E05X	552,943	9,106,626	quartz vein	◎						・													△2.460
E08X	552,494	9,103,444	andesitic tuff breccia	◎	△						△									・			
E09X	552,494	9,103,444	andesitic tuff breccia	◎	○						△				・					△			
E11X	547,185	9,104,434	strongly sillicified rock with sulfide	◎		△														△			
E14X	548,211	9,105,442	quartz vein with sulfide dissemination	◎																・			
E17X	548,216	9,105,450	quartz vein with sulfide dissemination	◎		△														・			
E19X	552,879	9,091,664	strongly sillicified rock with sulfide	◎		△																	
E21X	536,080	9,096,856	quartz vein	◎																			
E24X	536,832	9,096,132	strongly sillicified rock with sulfide	◎									・										
E27X	537,443	9,097,056	strongly sillicified rock with sulfide dissemination	◎		△	・						・				・			◎			
E31X	519,601	9,126,438	andesite (Tertiary volcanic breccia)	◎		○											・			・			
E32X	519,601	9,126,438	altered andesite (wall rock of quartz vein)	◎						・			・							・			
E33X	519,601	9,126,438	altered andesite (wall rock of quartz vein)	◎																・			
E34X	519,601	9,126,438	altered andesite (wall rock of quartz vein)	◎					△		・												
E35X	519,601	9,126,438	altered andesite (wall rock of quartz vein)	◎						・			・										・5.09, △3.07, ・2.318
F03X	545,151	9,108,902	altered tuff	◎		○		△					・?										
F06X	542,608	9,109,588	host rock of quartz vein (basalt)	◎		○			△				・							・			
F15X	536,089	9,111,176	host rock of quartz vein (silicified lapilli tuff)	◎		・			・											・			
F16X	536,089	9,111,176	host rock of quartz vein (lapilli tuff)	◎		△		△															
F18X	535,759	9,100,158	black mudstone	◎		△														・			
F22X	547,410	9,102,878	fine tuff with pyrite	◎		△		・															・2.319
F23X	547,111	9,102,840	fine tuff with pyrite	◎		△												・dol		・			・5.09
F24X	546,293	9,100,956	fine tuff with pyrite	◎				・		・													
F30X	539,998	9,096,284	altered zone	◎		○		・												△			
F31X	539,966	9,096,298	altered host rock	◎						・			・				・sid			・			
F32X	539,925	9,096,290	altered host rock	◎						×			・							・			
F33X	539,901	9,096,356	silicified rock	◎						・													
F37X	539,808	9,096,500	altered rock (float)	◎						・										・			
F39X	535,143	9,095,492	altered dacite	◎						・			・							・			

qz:quartz, Kf: potash-feldspar, pl:plagioclase, sm:smectite, chl:chlorite, chl/sm:chlorite/smectite mix layered mineral
se:sericite, se/sm:sericite/smectite mix layered mineral, ep:epidote, kao:kaolin, pyr:pyrophyllite, ja:jarocite
al:alunite,. cal: calcite, ank:ankerite, gyp:gypsum, py:pyrite, di:diaspore, hm:hematite,
x: unidentified mineral with the d value(Å)
Amount:◎>○>△>・>×

Table A-5 Results of Microscopic Observation of Polished Sections

Sample No. & Location			Description	Primary Minerals								Secondary Minerals						
No.	UTM (E)	UTM (N)		Py	Mt	Cp	Sp	Gn	El	Pol	Pear-Pyrg	Hm	Mt	Cu-min	Cov	Hm	Lm(Gt)	TiO_2
A04P	531,148	9,108,715	quartz-pyrite													×	×	
A22P	539,000	9,105,000	float (skarn ore?)									◎	△					
A26P	536,758	9,108,262	breccia zone (quartz vein py-cp)	◎		○									·			
A27P	537,075	9,108,792	breccia zone (quartz vein py-cp 0.35m)	·		△								·	·	×	×	
A30P	536,482	9,109,700	quartz vein/silicified zone (py;1.0m)	·		×												
A51P	542,605	9,108,680	quartz	△		×										·	·	
A72P	541,425	9,098,643	quartz pyrite vein	△												×	×	
A75P	541,558	9,098,172	quartz vein width 15cm	△												×	×	
A82P	530,980	9,102,800	skarn ore	·												×	×	
A83P	530,900	9,102,800	skarn ore (20cm)	○	·	×	◎											
A87P	511,105	9,105,793	breccica ore (20cm)	×		·								×	×	×	×	
A92P	486,523	9,137,150	Selogiri:quartz-pyrite (host rock)	△														
A93P	486,522	9,137,250	Selogiri:quartz-pyrite (host rock)	△		·												
A94P	486,521	9,137,316	Selogiri:quartz-pyrite (host rock)	○														
A95P	486,504	9,137,414	Selogiri:quartz-pyrite (host rock)	◎														
A96P	486,457	9,137,568	andesitic lapilli tuff	◎														
A99P	508,957	9,109,820	Punung:pyrite diss.silicified rock from a shaft	○												×	×	
A100P	508,926	9,109,870	Punung:quartz vein, with hematite	×												×	×	
A101P	508,950	9,109,854	Punung:quartz vein, with hematite	△											×	×	×	
A102P	508,950	9,109,854	Punung:quartz vein, with hematite	△		×			×	×	×							
A103P	508,912	9,109,810	Punung:clay vein			◎										·	·	
A111P	528,105	9,120,226	silicified andesitic tuff breccia													△	△	
A112P	528,105	9,120,226	silicified andesitic tuff breccia	×														
A113P	528,105	9,120,120	grayish fine tuff	×												△	△	
A117P	529,987	9,112,424	Mn ore host+ Mn veinlet										×					
A121P	531,164	9,108,618	quartz vein 40cm	○														
A123P	533,208	9,108,636	quartz vein 5cm	△												·	·	
A124P	536,735	9,109,625	quartz vein 20cm	○		△	×								×	×	×	
A125P	537,008	9,109,568	silicified zone (+quartz vein) 150cm	△			·											
A127P	540,400	9,096,150	basaltic tuff breccia	△		○	×											
B01P	533,028	9,118,560	quartz-calcite-pyrite vein; 15cm wide	·														
B06P	568,095	9,117,778	float of strongly silicified quartz porphyry-dioritic porphyry with quartz veinlets	×												·	·	
B10P	568,875	9,121,324	float of strongly silicified rock with quartz veins	·		×												
B20P	547,550	9,095,946	quartz-pyrite vein; 60cm wide	◎														

Table A-5 Results of Microscopic Observation of Polished Sections

Sample No. & Location			Description	Primary Minerals								Secondary Minerals						
No.	UTM (E)	UTM (N)		Py	Mt	Cp	Sp	Gn	El	Pol	Pear-Pyrg	Hm	Mt	Cu-min	Cov	Hm	Lm(Gt)	TiO_2
B21P	540,282	9,096,092	float of quartz-pyrite vein	・														
B23P	539,835	9,096,384	quartz-pyrite vein; 100cm wide	・		×												
B24P	546,365	9,096,586	float of quartz vein													△	・	
C24P	509,609	9,116,573	sili with py, cp, galena float	・		△	○				・				・			
C27P	509,216	9,120,192	silicified rock with pyrite float	△		・												
C29P	509,216	9,120,192	silicified rock with py, iron oxides float	・												△	△	
D01P	542,757	9,110,416	quartz float	・	×	・	△								・			
E12P	547,185	9,104,434	strongly sillicified rock with sulfide	○														
E15P	548,211	9,105,442	quartz vein with sulfide dissemination	△		×												
E28P	537,443	9,097,056	quartz with sulfide	・														×
E32P	519,601	9,126,438	wall rock of quartz vein	○			×	×										
E33P	519,601	9,126,438	wall rock of quartz vein	△		×	×									×	×	
E35P	519,601	9,126,438	wall rock of quartz vein	○														
F06P	542,608	9,109,588	quartz vein width: 1.0m	△												×	×	
F13P	536,089	9,111,176	quartz vein width: 1.9m	△												・	・	
F14P	536,089	9,111,176	quartz vein width: 0.4m＋	○		×												

Py:Pyrite, Mt:Magnetite, Cp:Chalcopyrite, Sp:Sphalerite, Gn:Galena, El:Electrum, Pol:Polybasite
Pear-Pyrg:Pearceite-Pyrargyrite, Hm:Hematite, Cu-min*Cu mineral, Lm:Limonite: Ge:Goethite
Cov:Covelline,TiO_2:Rutile
Amount:◎>○>△>・>×

Table A-6 Results of Chemical Analysis of Mineralized Samples(1/2)

SAMPLE	Locality		Cu	Pb	Zn	Ag	Sb	Au	Hg	As	Remarks
CODE	UTM (E)	UTM (N)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppb)	(ppm)	
A 03 A	531,148	9,108,715	15	12	49	2	2.5	36	923	0	ore(width 5cm quartz)
A 04 A	531,148	9,108,715	42	49	31	2	0.75	26	0	8	quartz-pyrite
A 05 A	532,447	9,109,917	44	35	31	2	0.5	10	423	4	silicified rock
A 08 A	533,615	9,108,666	801	21	352	3	1.0	14	1442	4	quartz(width 20cm)
A 09 A	534,188	9,108,483	60	70	42	6	0	1140	442	24	quartz hematite
A 17 A	540,020	9,107,548	27	27	147	4	0.5	16	519	0	pyrite disseminated andesitic rock
A 21 A	539,236	9,105,078	1178	28	135500	5	0.5	14	0	0	ore(pyrite zone 20cm)
A 22 A	539,000	9,105,000	23	23	329	3	0	16	173	0	float(skarn ore?)
A 26 A	536,758	9,108,262	22370	162	729	6	1.0	38	1019	0	breccia zone(quartz vein pyrite-chalcopyrite)
A 27 A	537,075	9,108,792	2661	61	197	3	0.75	14	192	0	breccia zone(quartz vein py-cp 35cm)
A 29 A	536,510	9,109,650	49	42	241	3	0.5	16	615	4	quartz vein (pyrite>chalcopyrite: 20cm)
A 30 A	536,482	9,109,700	846	109	356	8	1.5	286	827	4	quartz vein/silicified zone (pyrite:1.0m)
A 33 A	535,161	9,095,500	68570	850	1379	23	0.5	58	462	16	quartz gray argilic(pyrite) zone
A 42 A	565,500	9,105,200	104	16	44	6	3.0	4400	385	64	silicified rock
A 43 A	564,398	9,102,714	269	13	48	3	1.0	134	539	60	Pule vein 30cm
A 44 A	564,398	9,102,714	17	10	20	10	1.25	240	500	48	Pule vein 40cm
A 45 A	564,398	9,102,714	19	30	31	37	1.5	1175	1154	56	Pule vein 30cm
A 47 A	564,298	9,102,850	42	9	38	4	1.25	22	442	8	silicified rock
A 48 A	564,298	9,102,850	47	23	52	5	1.25	116	885	44	float of altered rock
A 50 A	542,605	9,108,680	117	184	589	3	1.25	16	404	0	quartz
A 51 A	542,605	9,108,680	379	145	48	4	1.0	20	250	4	quartz
A 58 A	555,089	9,097,520	768	714	1433	4	2.0	246	2442	52	pyrite-silicified rock
A 64 A	558,096	9,099,224	22	51	259	3	1.5	12	808	4	andesitic volcanic breccia
A 68 A	539,523	9,098,777	51	210	5950	4	0.5	18	846	8	quartz veinlet
A 69 A	539,523	9,098,774	17	408	239	5	1.5	12	654	8	quartz network
A 72 A	541,425	9,098,643	57	1375	694	4	1.25	12	731	4	quartz pyrite vein
A 74 A	541,430	9,098,644	561	671	18960	4	1.25	78	942	24	quartz vein(15cm)
A 75 A	541,558	9,098,172	11	28	126	4	1.0	20	827	20	quartz-pyrite vein (20cm)
A 82 A	530,980	9,102,800	94	12	2253	2	0	16	2925	16	skarn ore
A 83 A	530,900	9,102,800	281	357	11210	6	1.25	30	793	12	skarn ore (20cm)
A 87 A	511,105	9,105,793	2481	19	129	9	1.0	26	212	4	breccia ore (20cm)
A 92 A	486,523	9,137,150	226	169	1938	5	1.0	52	9135	56	Sologiri;quartz-pyrite (host rock)
A 93 A	486,522	9,137,250	30	52	82	6	1.0	970	208	20	Sologiri;quartz-pyrite (host rock)
A 94 A	486,521	9,137,316	20	73	69	10	1.75	1985	189	20	Sologiri;quartz-pyrite (host rock)
A 95 A	486,504	9,137,414	14	48	72	5	1.0	128	226	4	Sologiri;quartz-pyrite (host rock)
A 96 A	486,457	9,137,568	26	75	2093	5	1.0	376	1415	8	andesitic lapilli tuff
A 98 A	508,957	9,109,820	16	14	26	2	1.25	18	981	0	Punung;hematite argilic rock
A 99 A	508,957	9,109,820	10	22	19	2	1.25	14	212	4	Punung;pyrite diss.silicified rock from a shaft
A 100 A	508,926	9,109,870	558	18	39	2	1.5	700	226	8	Punung;quqrtz vein, with hematite
A 101 A	508,950	9,109,854	3126	45	27	3	1.0	434	302	8	Punung;quqrtz vein, with hematite
A 102 A	508,950	9,109,854	1219	17	73	2	2.0	28	906	4	Punung;quqrtz vein, with hematite
A 103 A	508,912	9,109,810	43	6	8	2	0.75	68	283	12	Punung;clay vein
A 105 A	509,137	9,109,836	726	25	40	3	4.0	18	1340	4	Punung East;quqrtz vein, with hematite
A 111 A	528,105	9,120,226	117	150	42	1162	12.5	10930	0	68	silicifeid andesitict tuff breccia
A 112 A	528,105	9,120,226	116	112	24	42	2.0	920	38	64	silicifeid andesitict tuff breccia
A 113 A	528,105	9,120,120	53	103	23	47	2.0	845	566	52	grayish fine tuff
A 116 A	539,972	9,088,170	81	22	63	3	1.25	28	472	4	fine tuff
A 117 A	529,987	9,112,424	40	23	70	3	13.5	16	359	12	Mn ore host rock and Mn veinlet
A 119 A	531,716	9,111,010	28	24	68	2	1.75	20	698	0	clay vein 10cm
A 121 A	531,164	9,108,818	282	55	448	2	3.0	16	321	4	quatz vein 40cm
A 123 A	533,208	9,108,636	50	22	75	2	1.25	48	340	4	quatz vein 5cm
A 124 A	536,735	9,109,625	3130	76	184	4	1.0	142	132	20	quatz vein 20cm
A 125 A	537,008	9,109,568	695	404	580	2	1.0	62	491	8	silicified zone (+quatz vein) 150cm
A 127 A	540,400	9,096,150	23840	115	128	69	1.0	170	113	0	pyrite-chalcopyrite-vein float
B 01 A	533,028	9,118,560	78	17	25	2	3.5	38	226	0	quartz-calcite-pyrite vein; 15cm wide
B 06 A	568095	9117778	21	17	12	3	3.5	58	491	28	float of strongly silicified quartz porphyry-dioriticporphyry with quartz veinlets
B 07 A	567828	9118662	17	15	19	1	2.5	38	200	4	float of strongly silicified rock; light grey
B 10 A	568875	9121324	220	55	20	22	2.5	1620	325	52	float of strongly silicified rock with quartz veins
B 12 A	569166	9122622	29	14	10	2	1.3	46	250	4	float of strongly silicified andesite (?); light grey
B 13 A	569166	9122622	22	38	21	2	1.25	320	225	44	float of dark grey andesite with stockwork of quartz
B 18 A	523748	9093404	14	34	13	2	0	42	200	8	float of silicified dacite (?)
B 19 A	550799	9096882	16	9	16	1	0.5	50	475	44	float of white quartz vein
B 20 A	547550	9095946	36	97	1017	51	1.0	48	3125	48	quartz-pyrite vein: 60cm wide
B 21 A	540282	9096092	20	48	96	2	1.25	42	250	24	float of quartz-pyrite vein
B 23 A	539835	9096384	38	79	151	3	0.5	116	250	580	quartz-pyrite vein:100cm wide
B 24 A	546365	9096586	19	452	24	20	1.0	100	350	56	float of quartz vein
B 26 A	538892	9093822	24	22	16	2	0.75	40	1200	52	float of silicified dacite (?) with quartz veinlets
C 04 A	569442	9083826	18	7	10	0	0.75	42	0	8	float of silicified rock with pyrite and sulfier
C 06 A	567037	9092426	9	17	23	2	3.0	40	0	8	silicified rock float
C 08 A	567210	9087122	14	69	8	1	0.5	42	425	12	silcified with argillized rock with pyrite
C 09 A	567210	9087122	101	72	28	2	1.0	110	200	68	silcified with argillized rock with hematite
C 17 A	543011	9099240	20	64	29	3	1.0	40	2075	4	strongly silicified rock with pyrite (tuff?)
C 24 A	509609	9116573	11280	1526	2364	46	1.25	645	675	0	*silicified rock with py, cpy, galena float*
D 01 A	542757	9110416	2054	1702	12630	3	0	62	175	0	quartz float

Table A-6 Results of Chemical Analysis of Mineralized Samples(2/2)

SAMPLE	Locality		Cu	Pb	Zn	Ag	Sb	Au	Hg	As	Remarks
CODE	UTM (E)	UTM (N)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	(ppb)	(ppm)	
E 06 A	552943	9106626	366	35	37	1	2.25	48	250	48	quartz vein
E 10 A	547185	9104434	35	24	78	1	0.75	42	150	0	strongly sillicified rock with sulfide
E 13 A	548211	9105442	1825	63	2255	15	0.5	56	425	8	quartz vein with sulfide dissemination
E 16 A	548216	9105450	152	32	1774	3	0.5	46	200	16	quartz vein
E 20 A	536080	9096856	42	102	90	1	2.5	198	175	28	quartz vein
E 25 A	536832	9096132	7	44	163	1	2.5	74	225	4	strongly sillicified rock with sulfide
E 26 A	537443	9097056	7	33	240	2	1.75	38	125	0	quartz with sulfide
E 32 A	519601	9126438	51	49	324	3	2.0	770	75	32	wall rock of quartz vein
E 33 A	519601	9126438	119	33	313	4	2.5	875	300	52	wall rock of quartz vein
E 35 A	519601	9126438	113	167	366	9	14	11805	250	810	wall rock of quartz vein
F 02 A	542753	9115060	21	26	46	2	3.5	475	0	4	quartz vein in andesite, width 5cm
F 06 A	542608	9109588	149	407	122	2	0.75	130	425	0	quartz vein width 1.0m
F 07 A	542600	9109554	99	144	441	2	2.5	48	325	0	quartz vein width 1.6m
F 08 A	542398	9108786	2057	1198	1653	8	2.25	304	150	16	quartz vein width 20cm
F 12 A	536089	9111176	1441	47	177	4	1.0	52	75	4	quartz vein width:1.5m
F 13 A	536089	9111176	568	47	454	4	0.75	46	0	0	quartz vein width:1.5m
F 14 A	536089	9111176	1375	127	964	3	1.25	42	0	0	quartz vein width:1.9m
F 17 A	535759	9100158	9	23	29	2	2.0	40	0	4	dyke rock with pyrite
F 19 A	550122	9083742	20	20	17	1	1.75	58	225	24	quartz float
F 20 A	556449	9083984	11	11	5	30	2.0	66	75	12	quartz vein 0.1m
F 29 A	540077	9096128	857	20	12	6	1.5	52	175	4	quartz float 50X50X50cm
F 31 A	539966	9096298	885	4598	14160	18	1.25	288	1725	64	quartz vein
F 34 A	539885	9096360	75	63	422	3	1.5	44	0	48	quartz vein width 60cm
F 35 A	539800	9096512	11	34	164	2	1.25	50	75	36	silicified zone
F 38 A	539805	9096500	88	43	408	5	1.0	58	0	88	quartz network
F 39 A	535143	9095492	7	49	18	1	1.0	40	125	8	altered dacite

Note :

- Detection limit
  Au : 0.1 ppb, Hg : 0.1 ppb
  Cu : 0.1 ppm, As : 0.5 ppm
  Pb : 0.1 ppm, Ag : 0.05 ppm
  Zn : 0.1 ppm, Sb : 0.5 ppm

- Methods
  Au : MIBK EXTRACTION/AAS
  Cu,Pb,Zn,Ag : Flame AAS
  Hg : Hydride Generation AAS
  Sb, As : Colorimetry

Table A-7 Homogenization Temperatures and Salinities of Fluid Inclusions (1/2)

No.	Host mineral	Size(μm)	Primary or secondary	Cooling temperatur	Salinty(wt%.NaCl)	Measurement (℃)	Homogenization Temperature(℃)
F06F	quartz	10	secondary	-2.1	4.0	178	192
	quartz	8	secondary	-1.6	3.2	162	174
	quartz	5	secondary	-1.6	3.2	180	194
	quartz	15	secondary	-0.1	0.6	143	152
	quartz	6	secondary	-1.4	2.9	172	185
	quartz	8	secondary	-1.5	3.0	175	188
	quartz	10	secondary	-2.1	4.0	174	187
	quartz	12	secondary	-1.6	3.2	172	185
	quartz	7	secondary	-1.4	2.9	152	163
	quartz	10	secondary	-3.1	5.7	141	150
	quartz	12	secondary	-1.2	2.5	188	203
	quartz	9	secondary	-2.3	4.4	226	247
	quartz	14	secondary	-0.8	1.8	208	226
	quartz	15	secondary	-2.0	3.9	148	158
F13F	quartz	3	secondary			232	254
	quartz	3	secondary			135	144
	quartz	5	secondary			198	214
	quartz	4	secondary			197	213
	quartz	7	secondary			179	193
	quartz	4	secondary			169	182
	quartz	2	secondary			161	173
	quartz	2	secondary			187	202
	quartz	2	secondary			143	152
	quartz	3	secondary			187	202
	quartz	5	secondary			243	267
	quartz	3	secondary			244	268
	quartz	6	secondary			254	279
	quartz	7	secondary			262	289
	quartz	7	secondary			134	143
	quartz	3	secondary			173	186
F29F	quartz	25	secondary	-1.7	3.4	187	202
	quartz	70	secondary	-0.5	1.3	157	168
	quartz	23	secondary	-1.5	3.0	247	271
	quartz	40	secondary	-1.5	3.0	248	272
	quartz	11	secondary	-1.0	2.2	189	204
	quartz	28	secondary	-2.0	3.9	246	270
	quartz	15	secondary	-1.5	3.0	243	267
	quartz	20	secondary	-1.6	3.2	241	264
	quartz	18	secondary	-1.8	3.5	273	302
	quartz	42	secondary	-2.0	3.9	272	301
A74F	quartz	10	secondary	-0.1	0.6	208	226
	quartz	9	secondary	-1.4	2.9	245	269
	quartz	12	secondary	-1.2	2.5	228	249
	quartz	8	secondary	-0.3	1.0	233	255
	quartz	6	secondary	0.0	0.4	224	244
	quartz	13	secondary	-1.3	2.7	252	277
	quartz	10	secondary	-1.2	2.5	254	279
	quartz	8	secondary	-0.4	1.2	251	276
	quartz	16	secondary	-1.1	2.4	243	267
	quartz	10	secondary	-1.3	2.7	228	249
	quartz	8	secondary	0.0	0.4	227	248

Table A-7 Homogenization Temperatures and Salinities of Fluid Inclusions (2/2)

No.	Host mineral	Size(μm)	Primary or secondary	Cooling temperatur	Salinty(wt%.NaCl)	Measurement (℃)	Homogenization Temperature(℃)
A74F	sphalerite	40	secondary	0.1	0.3	177	191
	sphalerite	14	secondary	-0.1	0.6	199	216
	sphalerite	11	secondary	-0.5	1.3	227	248
	sphalerite	11	secondary	-0.3	1.0	226	247
	sphalerite	20	secondary	-0.3	1.0	230	251
	sphalerite	55	secondary	-1.0	2.2	240	263
	sphalerite	11	secondary	-1.1	2.4	219	239
	sphalerite	25	secondary	-1.1	2.4	265	292
	sphalerite	8	secondary	-1.4	2.9	252	277
	sphalerite	15	secondary	-1.0	2.2	210	228
A75F	quartz	7	secondary	-0.8	1.8	261	288
	quartz	17	secondary	-1.0	2.2	263	290
	quartz	14	secondary	-1.8	3.5	256	282
	quartz	10	secondary	-1.0	2.2	273	302
	quartz	6	secondary	-0.1	0.6	242	265
	quartz	10	secondary	-1.1	2.4	274	303
	quartz	14	secondary	-2.2	4.2	268	296
	quartz	25	secondary	0.1	0.3	232	254
	quartz	8	secondary	-0.8	1.8	269	297
	quartz	9	secondary	-2.1	4.0	256	282
A29F	quartz	10	secondary	-2.1	4.0	222	242
	quartz	10	secondary	-2.2	4.2	200	217
	quartz	7	secondary	-1.6	3.2	198	214
	quartz	10	secondary	-1.2	2.5	200	217
	quartz	9	secondary	-1.3	2.7	182	196
	quartz	4	secondary	-1.5	3.0	170	183
	quartz	13	secondary	-1.7	3.4	193	209
	quartz	13	secondary	-0.8	1.8	200	217
	quartz	8	secondary	-1.6	3.2	190	205
	quartz	7	secondary	-1.8	3.5	219	239
	quartz	20	secondary	-1.7	3.4	213	232
	quartz	17	secondary	-1.7	3.4	259	285

NaCl equivalent salinity

$y = -0.0308X^2 - 1.7798X + 0.4444$

Homogenization temperature

$y = 0.0003X^2 + 1.0243X - 0.1295$

Table A-8 Results of Analysis of Geochemical Survey Samples (1/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
A001S	543430	9111607	<1	<0.5	0.12	0.91	1.88	0.03	0.17	2.58	0.46	342	44	1460	7.13	30	10	17.5	184	<3	103	<1	<0.2	2	<5	70	<10	8	3	<5
A002S	542705	9111366	<1	<0.5	0.07	1.21	1.72	0.03	0.09	0.7	0.21	227	21	1320	5.13	20	10	27	185	<3	45.2	<1	<0.2	<1	<5	93	<10	7	24	<5
A003S	542714	9111120	66	<0.5	0.06	1.21	1.95	0.02	0.11	0.44	0.29	338	39	1190	7.41	28	9	23.5	174	<3	36.6	<1	<0.2	<1	<5	52	<10	6	5	<5
A004S	531148	9108715	32	<0.5	0.05	0.75	1.26	0.02	0.1	0.31	0.13	149	21	3700	4.25	17	10	28.2	115	<3	61.7	<1	0.4	<1	<5	129	<10	9	18	<5
A005S	531214	9108621	26	<0.5	0.05	1.06	2.19	0.02	0.09	0.45	0.19	236	24	1100	5.69	23	11	72.8	127	<3	77.2	<1	<0.2	<1	<5	77	<10	11	6	<5
A006S	531883	9108651	26	<0.5	0.02	0.4	0.88	0.02	0.12	0.04	0.06	84	12	480	4.91	15	4	477	103	<3	3.7	5	0.3	<1	<5	22	<10	6	7	7
A007S	532447	9109917	9	<0.5	0.08	0.98	2.46	0.03	0.08	0.52	0.2	237	34	1020	5.39	24	18	29.1	95.3	<3	66.8	<1	<0.2	<1	<5	104	<10	19	5	<5
A008S	532391	9109892	10	<0.5	0.04	0.46	1.46	0.01	0.06	0.24	0.43	349	24	1170	7.09	29	8	21.3	128	<3	34	<1	0.3	<1	<5	75	<10	17	6	<5
A009S	532481	9108851	10	<0.5	0.05	0.98	1.86	0.02	0.06	0.33	0.58	544	54	1540	9.56	39	17	41.6	189	<3	38.2	<1	<0.2	3	<5	64	<10	11	6	<5
A010S	533182	9108662	13	<0.5	0.04	0.94	1.73	0.02	0.08	0.24	0.15	227	24	1200	5.27	21	9	60.1	144	<3	21.2	<1	<0.2	<1	<5	53	<10	234	7	<5
A011S	533308	9108463	12	<0.5	0.04	1.01	2.15	0.03	0.06	0.3	0.13	291	26	1300	6.58	27	8	45.4	112	<3	26.4	<1	<0.2	<1	<5	64	<10	9	<2	6
A012S	533321	9108542	4	<0.5	0.05	0.99	2.13	0.02	0.08	0.46	0.21	252	20	1190	5.99	26	10	53.2	120	<3	78.2	<1	<0.2	<1	<5	87	<10	14	8	<5
A013S	533615	9108666	4	<0.5	0.05	0.92	2.07	0.03	0.06	0.25	0.04	169	27	1290	4.32	21	10	56.8	132	<3	21.7	<1	<0.2	<1	<5	60	<10	19	4	<5
A014S	534188	9108483	6	<0.5	0.04	1.16	2.08	0.03	0.06	0.27	0.07	205	18	1210	5.02	21	8	51.3	132	<3	22.6	<1	<0.2	<1	<5	58	<10	16	5	<5
A015S	534442	9107835	7	<0.5	0.04	1.13	2.13	0.03	0.07	0.28	0.15	305	25	1230	6.69	25	7	81.9	234	<3	22.4	<1	0.2	<1	<5	71	<10	12	12	<5
A016S	534733	9107834	3	<0.5	0.05	0.5	1.32	0.01	0.12	0.42	0.1	125	8	797	3.6	13	1	21.5	125	<3	48.2	<1	<0.2	<1	<5	83	<10	12	24	<5
A017S	535133	9108138	3	<0.5	0.06	1.25	2.21	0.03	0.05	0.28	0.15	342	36	1180	6.97	28	9	74.3	130	<3	23.7	<1	<0.2	<1	<5	45	<10	8	3	<5
A018S	535549	9108239	39	<0.5	0.04	1.16	2.27	0.04	0.07	0.28	0.09	265	14	1180	6.32	26	5	57.2	140	<3	25.3	<1	0.6	<1	<5	63	<10	11	7	<5
A019S	535454	9107459	7	<0.5	0.06	0.38	1.21	0.02	0.06	0.37	0.24	270	25	898	6.31	18	5	10.7	103	<3	33.2	<1	<0.2	<1	<5	44	<10	10	5	<5
A020S	535539	9107161	16	<0.5	0.05	0.31	1.15	0.01	0.09	0.34	0.18	177	11	828	4.38	15	2	18.7	165	<3	34.1	<1	0.3	<1	<5	51	<10	15	25	<5
A021S	536127	9106938	31	<0.5	0.03	0.32	1.93	0.02	0.09	0.26	0.14	182	21	1190	5.22	20	3	28.6	97.3	<3	30.8	<1	<0.2	<1	<5	130	<10	24	13	<5
A022S	536543	9106616	16	<0.5	0.04	0.28	1.29	0.02	0.11	0.36	0.08	153	9	1180	4.54	16	2	14.3	72.5	<3	28.9	<1	<0.2	<1	<5	94	<10	11	7	<5
A023S	536385	9106208	9	<0.5	0.05	0.37	1.71	0.02	0.14	0.4	0.17	196	44	1100	5.4	18	4	16	104	<3	34	<1	<0.2	<1	<5	82	<10	14	10	<5
A024S	535775	9105350	6	<0.5	0.04	0.4	1.37	0.01	0.1	0.42	0.08	111	8	824	3.56	11	2	12.6	88.1	<3	37.7	<1	<0.2	<1	<5	64	<10	13	12	<5
A025S	535825	9105360	26	<0.5	0.07	0.41	1.94	0.02	0.17	0.42	0.24	235	79	1230	6.09	20	6	16.8	116	<3	33.8	<1	<0.2	<1	<5	82	<10	14	9	<5
A026S	536913	9106181	8	<0.5	0.04	0.33	1.1	0.02	0.09	0.31	0.27	334	46	1240	7.73	25	10	17.7	118	<3	22.9	<1	<0.2	1	<5	65	<10	10	13	6
A027S	536835	9106129	16	<0.5	0.03	0.3	1.84	0.02	0.09	0.25	0.13	172	17	1210	5.1	19	3	27.2	90.7	<3	30.3	<1	<0.2	<1	<5	124	<10	24	13	7
A028S	536259	9107823	15	<0.5	0.04	0.22	1.02	0.02	0.07	0.21	0.36	330	21	1290	7.06	27	5	24.9	167	<3	20.9	<1	<0.2	1	<5	73	<10	12	20	<5
A029S	542031	9105320	1	0.8	0.04	0.21	2.27	0.02	0.08	0.22	0.21	228	25	1210	5.95	23	3	25.1	77.5	<3	42.5	<1	0.2	<1	<5	179	<10	34	5	<5
A030S	541714	9104493	<1	<0.5	0.05	0.26	1.55	0.01	0.08	0.32	0.12	164	11	800	4.43	19	3	16.4	48.4	<3	36.5	<1	<0.2	<1	<5	68	<10	19	3	<5
A031S	540020	9107548	2	0.6	0.03	0.21	1.77	0.04	0.11	0.16	0.08	176	44	1860	5.91	21	2	54.6	176	<3	17.8	<1	<0.2	<1	<5	99	<10	19	17	<5
A032S	539895	9107552	12	0.5	0.04	0.29	1.49	0.02	0.08	0.32	0.52	443	27	1590	8.6	35	7	28.6	240	<3	29.9	<1	<0.2	3	<5	97	<10	20	25	<5
A033S	539638	9107001	36	0.6	0.03	0.23	1.89	0.03	0.15	0.23	0.23	322	70	1410	7.61	25	5	41	175	<3	21.8	<1	0.2	1	<5	105	<10	21	24	<5
A034S	538363	9107583	6	<0.5	0.04	0.33	1.94	0.01	0.07	0.24	0.2	204	15	1410	5.14	21	4	45.3	200	<3	29	<1	0.2	<1	<5	149	<10	26	39	<5
A035S	539820	9105890	5	<0.5	0.04	0.39	2	0.04	0.12	0.19	0.09	202	90	1550	6.18	22	4	42.8	172	<3	19.8	<1	<0.2	<1	<5	80	<10	17	7	<5
A036S	539800	9105830	6	<0.5	0.03	0.22	1.62	0.01	0.07	0.21	0.14	177	10	1140	5.02	20	1	23.5	71.8	<3	31.8	<1	<0.2	<1	<5	130	<10	27	8	<5
A037S	538800	9105375	6	<0.5	0.03	0.27	2.03	0.02	0.08	0.23	0.16	201	28	1210	5.55	20	2	27.8	89.1	<3	31.8	<1	<0.2	<1	<5	124	<10	27	10	5
A038S	538850	9105360	4	<0.5	0.04	0.44	1.51	0.03	0.12	0.29	0.06	127	10	1530	4.43	15	2	37	171	<3	22.3	<1	<0.2	1	<5	73	<10	14	41	<5
A039S	537825	9105000	3	<0.5	0.04	0.33	1.68	0.02	0.09	0.24	0.4	397	43	1360	8.33	32	5	32.5	158	<3	28.3	<1	<0.2	3	<5	99	<10	18	16	<5
A040S	537810	9105070	9	<0.5	0.04	0.28	1.24	0.01	0.08	0.26	0.4	357	24	1270	7.8	31	7	22.5	99.5	4	21.5	<1	<0.2	2	<5	67	<10	14	23	<5
A041S	538325	9107501	16	<0.5	0.04	0.24	1.67	0.02	0.1	0.23	0.31	329	56	1410	7.37	26	5	30.7	156	<3	23.9	<1	<0.2	1	<5	98	<10	19	19	<5
A042S	536083	9108457	4	<0.5	0.04	1.71	2.73	0.03	0.05	0.23	0.11	288	19	1360	6.86	28	8	90.2	181	<3	26	<1	<0.2	<1	<5	55	<10	8	5	9
A043S	536101	9108679	2	<0.5	0.04	1.29	2.52	0.03	0.07	0.24	0.08	268	35	1200	6.44	27	6	53.2	129	<3	25.9	<1	<0.2	1	<5	69	<10	9	6	<5
A044S	536697	9108933	3	<0.5	0.04	0.89	2.05	0.02	0.12	0.39	0.09	196	21	1290	5.22	20	8	43.4	150	<3	27.9	<1	<0.2	<1	<5	87	<10	14	23	5
A045S	537047	9108773	6	<0.5	0.05	0.92	2.08	0.02	0.09	0.35	0.07	184	38	1260	4.61	20	9	51	130	<3	26.9	<1	0.4	<1	<5	82	<10	12	26	<5
A046S	537075	9108792	2	<0.5	0.03	0.72	1.6	0.02	0.08	0.34	0.03	104	16	1470	3.66	15	5	37.3	165	<3	24.4	<1	0.2	<1	<5	92	<10	15	34	<5
A047S	536516	9109714	12	<0.5	0.07	1.01	2.49	0.02	0.07	0.56	0.37	353	56	1330	7.14	34	16	55.2	132	<3	107	<1	<0.2	2	<5	79	<10	10	5	<5
A048S	536687	9109685	1	<0.5	0.03	1.15	1.94	0.03	0.06	0.33	0.03	159	13	1150	4.6	19	5	54.3	127	<3	28.2	<1	<0.2	<1	<5	84	<10	9	14	<5
A049S	535003	9095377	67	<0.5	0.05	0.49	1.6	0.03	0.1	0.58	0.17	211	55	1370	6.15	22	7	44.6	153	15	49.8	<1	<0.2	1	<5	86	<10	25	25	<5
A050S	535161	9095442	2	<0.5	0.03	0.77	1.77	0.04	0.09	0.32	0.05	143	22	1190	4.81	17	5	49.6	172	3	23.2	<1	<0.2	<1	<5	86	<10	16	24	6
A051S	535022	9095380	3	<0.5	0.06	0.74	1.84	0.05	0.09	0.62	0.25	268	15	1320	6.99	22	4	22.6	135	4	43.4	<1	<0.2	1	<5	57	<10	15	6	<5
A052S	535508	9095147	1	<0.5	0.03	0.16	0.9	0.01	0.07	0.17	0.14	162	14	794	4.61	15	4	36	97.1	5	15.3	1	<0.2	<1	<5	49	<10	15	20	<5
A053S	536393	9095090	9	<0.5	0.04	0.64	1.46	0.02	0.08	0.21	0.36	388	29	1280	8.3	29	8	40.9	152	<3	20.1	<1	<0.2	2	<5	51	<10	15	10	<5
A054S	537299	9094821	3	<0.5	0.04	0.6	1.4	0.03	0.07	0.2	0.13	176	14	1310	5.14	19	4	53.4	115	<3	19.2	<1	0.4	<1	<5	48	<10	11	13	<5
A055S	569574	9109192	7	<0.5	0.05	0.42	1.51	0.02	0.09	0.48	0.25	338	19	1160	6.62	25	5	23.2	83.9	<3	41	<1	<0.2	<1	<5	75	<10	8	<2	<5

Table A-8 Results of Analysis of Geochemical Survey Samples (2/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
A056S	569699	9109097	<1	<0.5	0.06	0.45	1.51	0.02	0.07	0.56	0.67	613	40	1400	10.7	45	12	24.6	136	<3	52.6	<1	<0.2	4	<5	66	<10	9	3	<5
A057S	569680	9111393	1	<0.5	0.05	0.5	1.58	0.03	0.09	0.52	0.18	267	22	1040	5.98	22	4	23.3	69.7	8	47	<1	<0.2	<1	<5	81	<10	8	<2	<5
A058S	569267	9111491	<1	<0.5	0.04	0.36	1	0.02	0.03	0.45	0.27	300	15	990	6.14	24	4	14.9	84.3	<3	33.3	<1	<0.2	1	<5	56	<10	<5	3	<5
A059S	568143	9112932	1	<0.5	0.05	0.58	1.43	0.02	0.03	0.53	0.55	537	49	1480	8.62	36	13	21.9	155	<3	62.2	<1	<0.2	2	<5	67	<10	8	4	<5
A060S	567748	9112771	4	<0.5	0.08	0.54	2.1	0.04	0.08	0.85	0.4	427	65	1360	8.1	33	10	26.4	148	<3	90.2	<1	<0.2	2	<5	96	<10	12	6	<5
A061S	567802	9112332	<1	<0.5	0.07	0.43	1.56	0.02	0.04	0.62	0.68	663	39	1570	11.3	48	12	23.1	144	<3	60.2	<1	<0.2	4	<5	93	<10	7	5	<5
A062S	567701	9112450	5	<0.5	0.1	0.57	2.23	0.03	0.08	0.88	0.45	396	52	1310	7.53	31	9	25.2	141	<3	83.8	<1	<0.2	2	<5	88	<10	12	3	<5
A063S	564095	9108230	2	0.6	0.07	0.32	2.84	0.02	0.07	0.46	0.23	282	18	1360	6.86	30	5	29	83.6	<3	98.9	<1	<0.2	<1	<5	260	<10	15	6	<5
A064S	564148	9108167	1	0.5	0.05	0.46	2.32	0.02	0.07	0.44	0.7	650	69	1810	11.5	49	12	27.8	169	<3	69.3	<1	<0.2	4	<5	127	<10	14	5	<5
A065S	564656	9108233	<1	0.5	0.04	0.3	2.2	0.01	0.04	0.36	0.47	428	31	1450	8.69	36	7	24.2	119	<3	51.9	<1	<0.2	2	<5	163	<10	16	8	<5
A066S	560248	9105606	1	0.5	0.03	0.16	1.61	<0.01	0.03	0.16	0.97	400	22	2830	10.6	43	4	20.5	293	<3	27.2	<1	0.3	4	<5	106	<10	16	8	<5
A067S	560341	9105426	1	<0.5	0.04	0.3	1.92	0.01	0.02	0.27	0.88	626	63	1770	11.1	50	11	24.1	179	<3	41.5	<1	<0.2	4	<5	118	<10	17	5	<5
A068S	561136	9104683	7	0.6	0.04	0.52	2.46	0.01	0.03	0.35	0.69	664	90	1730	10	50	15	29.1	119	<3	69.5	<1	<0.2	3	<5	158	<10	21	3	<5
A069S	561801	9103263	<1	<0.5	0.03	0.42	1.37	<0.01	0.02	0.17	0.97	869	98	1860	12.8	61	15	23	174	<3	32.5	<1	<0.2	6	<5	71	<10	9	5	<5
A070S	560616	9102048	<1	0.5	0.03	0.59	2.62	0.02	0.02	0.39	0.38	452	43	1340	7.8	39	9	31.6	87.1	<3	63	<1	<0.2	2	<5	119	<10	17	<2	<5
A071S	560485	9102098	2	0.6	0.06	0.92	3.03	0.01	0.02	0.55	0.83	817	117	1520	11.6	59	18	32.1	139	<3	66.9	<1	<0.2	4	<5	84	<10	17	<2	<5
A072S	561515	9101918	1	<0.5	0.03	0.34	1.09	<0.01	0.01	0.16	0.76	665	66	1560	11.1	49	12	18.1	153	<3	24.1	<1	<0.2	3	<5	52	<10	10	4	<5
A073S	560474	9101619	3	0.5	0.05	0.66	2.91	0.02	0.03	0.49	0.51	511	57	1390	8.64	44	10	32.2	104	<3	72.6	<1	<0.2	2	<5	128	<10	19	2	<5
A074S	563047	9093736	1	<0.5	0.04	0.34	1.62	0.01	0.03	0.72	0.29	396	34	1230	7.75	32	8	22.5	118	<3	104	<1	<0.2	2	<5	66	<10	15	6	<5
A075S	562996	9093673	3	0.6	0.04	0.4	1.49	0.01	0.02	0.57	0.77	784	91	2200	13.6	58	21	26.3	248	<3	77.6	<1	<0.2	6	<5	48	<10	10	3	<5
A076S	563458	9093139	3	<0.5	0.04	0.31	1.57	0.01	0.02	0.85	0.28	410	40	1700	8.01	31	12	20.6	147	<3	129	<1	<0.2	1	<5	70	<10	13	5	<5
A077S	563473	9093206	<1	<0.5	0.05	0.38	1.73	0.02	0.04	0.77	0.48	563	66	1700	10.4	44	14	24.5	181	4	96.6	<1	<0.2	3	<5	69	<10	12	4	<5
A078S	562215	9094525	3	<0.5	0.04	0.31	1.3	0.01	0.03	1.05	0.74	699	60	1310	11.1	49	17	25	146	10	71.3	<1	<0.2	5	<5	83	<10	25	5	<5
A079S	562167	9094241	<1	<0.5	0.04	0.35	1.75	0.02	0.03	1.05	0.13	312	48	1390	6.68	25	9	21.2	118	5	123	<1	<0.2	<1	<5	71	<10	12	5	7
A080S	562453	9093812	<1	<0.5	0.03	0.35	1.79	0.02	0.03	1.46	0.15	335	34	1500	6.48	23	11	25.9	99.7	<3	140	<1	<0.2	<1	<5	69	<10	12	3	<5
A081S	561354	9092780	<1	<0.5	0.03	0.4	1.7	0.01	0.03	0.62	0.48	599	44	1860	9.43	35	9	35.3	158	<3	80.1	<1	<0.2	3	<5	65	<10	10	4	<5
A082S	561102	9092775	<1	<0.5	0.03	0.3	1.52	0.02	0.03	0.76	0.39	450	29	1380	8	30	10	26.2	128	23	74	<1	<0.2	2	<5	68	<10	23	7	<5
A083S	560727	9094127	<1	0.5	0.04	0.42	1.56	0.01	0.04	0.52	0.48	569	52	1630	9	33	9	29.5	182	5	53.3	<1	<0.2	2	<5	62	<10	13	7	<5
A084S	560084	9093389	<1	<0.5	0.04	0.4	1.84	0.02	0.08	0.36	0.19	246	17	1360	6.15	21	3	20.7	94.7	<3	43.7	<1	<0.2	<1	<5	95	<10	17	9	<5
A085S	561560	9094683	<1	<0.5	0.03	0.27	1.93	0.01	0.03	0.32	0.45	495	57	1410	8.74	36	7	28.7	151	8	45	<1	<0.2	2	<5	109	<10	47	7	<5
A086S	555089	9097520	<1	<0.5	0.04	0.48	2.37	0.02	0.06	0.43	0.23	307	32	1460	6.79	29	6	31.2	88.3	<3	47.2	<1	<0.2	1	<5	95	<10	19	3	<5
A087S	555048	9098005	<1	<0.5	0.04	0.4	1.59	0.02	0.04	0.39	0.35	358	45	1350	7.43	28	7	31.4	110	<3	28	<1	<0.2	2	<5	56	<10	12	7	<5
A088S	554578	9098927	<1	<0.5	0.03	0.52	1.6	0.02	0.07	0.41	0.11	146	19	1280	4.81	17	4	28	121	<3	29.2	<1	0.4	<1	<5	76	<10	6	9	<5
A089S	554565	9098978	<1	<0.5	0.03	0.33	1.58	0.02	0.04	0.25	0.51	479	36	1480	9.37	37	7	30.3	130	<3	33.4	<1	<0.2	3	<5	83	<10	15	10	<5
A090S	554778	9099045	<1	<0.5	0.04	0.36	1.74	0.02	0.04	0.28	0.35	384	29	1200	8.12	29	6	46.8	115	<3	37.3	<1	<0.2	2	<5	89	<10	15	13	<5
A091S	556099	9098982	<1	<0.5	0.03	0.25	1.27	0.02	0.04	0.22	0.37	475	77	1320	9.4	35	9	39.2	112	<3	20.9	<1	<0.2	3	<5	60	<10	20	10	<5
A092S	556367	9099077	<1	<0.5	0.02	0.19	0.75	0.01	0.02	0.14	0.19	370	69	844	7.87	22	6	35.3	59.7	<3	13	<1	<0.2	2	<5	37	<10	6	5	7
A093S	557067	9098964	<1	<0.5	0.07	0.34	1.86	0.02	0.07	0.42	0.25	295	91	1540	6.85	27	6	40.3	107	<3	45.3	<1	<0.2	2	<5	93	<10	16	13	<5
A094S	558096	9099224	<1	<0.5	0.03	0.4	1.16	<0.01	0.02	0.19	0.94	859	82	1910	13.8	61	15	24.3	204	<3	24.3	<1	<0.2	7	<5	46	<10	7	<2	<5
A095S	549184	9097603	<1	<0.5	0.03	0.28	1.52	<0.01	0.06	0.12	0.72	612	43	1500	11.3	48	10	24.7	129	<3	25.9	<1	<0.2	4	<5	125	<10	22	12	<5
A096S	548652	9098386	<1	<0.5	0.04	0.15	1.23	<0.01	0.07	0.27	0.16	151	9	981	3.5	15	2	12.9	50.6	<3	25.3	<1	<0.2	<1	<5	75	<10	16	8	<5
A097S	548757	9098396	2	<0.5	0.03	0.33	1.59	0.01	0.08	0.27	0.31	239	18	1200	5.9	21	4	15.2	135	<3	34.8	<1	<0.2	1	<5	94	<10	18	12	<5
A098S	548638	9098496	<1	<0.5	0.04	0.24	1.42	0.02	0.09	0.2	0.3	288	19	1010	5.91	26	5	24.6	119	<3	22.4	<1	<0.2	1	<5	91	<10	35	22	<5
A099S	549112	9098988	44	<0.5	0.04	0.38	1.77	0.01	0.11	0.23	0.45	405	63	1320	8.23	33	8	24.1	131	<3	28.8	<1	<0.2	2	<5	119	<10	17	15	<5
A100S	549405	9098966	26	<0.5	0.03	0.3	1.47	0.01	0.07	0.22	0.19	204	12	1050	5.13	18	6	17.6	97.6	<3	27.5	<1	<0.2	<1	<5	89	<10	15	16	<5
A101S	549754	9098931	<1	<0.5	0.03	0.27	1.29	<0.01	0.04	0.2	0.4	290	35	1240	6.7	24	4	13.5	163	<3	27.3	<1	<0.2	1	<5	68	<10	13	8	<5
A102S	549976	9098625	7	<0.5	0.03	0.19	0.99	0.01	0.06	0.18	0.1	108	10	971	3.87	12	2	12	102	<3	17.8	<1	0.3	<1	<5	58	<10	12	17	<5
A103S	539523	9098777	<1	<0.5	0.02	0.33	1.22	0.02	0.04	0.11	0.4	407	32	1340	8.18	33	6	33.2	123	<3	19.3	<1	<0.2	2	<5	63	<10	16	19	<5
A104S	539500	9098678	<1	<0.5	0.02	0.42	1.12	0.02	0.06	0.1	0.32	329	21	1040	7.61	28	7	50.2	107	<3	12.2	<1	<0.2	2	<5	37	<10	14	3	<5
A105S	540323	9098124	2	0.6	0.05	0.74	1.77	0.02	0.21	0.35	0.07	158	46	1300	5.07	17	7	37.3	145	6	29.1	2	<0.2	1	<5	70	<10	12	22	8
A106S	540342	9098157	<1	<0.5	0.02	0.47	1.62	0.02	0.07	0.16	0.16	233	18	1320	6.1	24	4	50.7	121	<3	23.9	<1	0.7	1	<5	74	<10	18	21	7
A107S	541425	9098643	<1	<0.5	0.03	1.09	1.88	0.04	0.05	0.39	0.04	124	19	1110	4.29	14	4	28.6	140	<3	20.1	<1	<0.2	<1	<5	23	<10	<5	2	<5
A108S	541479	9098595	10	<0.5	0.03	0.56	1.12	0.02	0.05	0.18	0.26	331	21	1000	7.26	25	6	32.6	122	<3	15.3	<1	<0.2	1	<5	40	<10	5	14	<5
A109S	541558	9098172	<1	<0.5	0.03	0.5	1.47	0.02	0.06	0.18	0.11	177	20	1220	5.01	19	6	41.9	145	<3	20.5	<1	<0.2	<1	<5	60	<10	15	16	<5
A110S	531723	9103136	<1	<0.5	0.03	0.49	1.43	0.03	0.06	0.21	0.25	295	35	1450	7.07	24	6	77.2	231	<3	16.8	1	0.2	2	<5	67	<10	15	29	<5

Table A-8 Results of Analysis of Geochemical Survey Samples (3/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
A111S	520984	9105865	96	<0.5	0.03	0.44	0.92	0.01	0.03	0.18	0.72	706	40	1790	12.7	50	11	43.1	265	<3	15.6	<1	<0.2	6	<5	54	<10	19	10	<5
A112S	511105	9105793	<1	<0.5	0.04	0.33	1.59	0.02	0.08	0.34	0.28	275	17	1380	6.24	27	4	29.1	99.3	<3	27.8	<1	<0.2	1	<5	107	<10	15	13	<5
A113S	511329	9105722	<1	<0.5	0.03	0.5	1.39	0.02	0.1	0.21	0.27	300	86	1350	6.89	28	11	56.7	197	<3	17.1	2	<0.2	2	<5	172	<10	14	17	<5
A114S	535590	9092951	219	<0.5	0.04	0.21	0.75	0.05	0.11	0.28	0.18	242	16	1270	8.15	18	4	453	580	217	23.4	<1	2.3	4	<5	231	<10	1120	398	7
A115S	538484	9090456	1	<0.5	0.03	0.97	2.49	0.02	0.06	0.56	0.22	349	52	1460	8.08	37	11	47.5	102	13	105	<1	<0.2	2	<5	92	<10	75	6	6
A116S	539926	9088177	2	<0.5	0.03	0.41	1.39	0.01	0.05	0.43	0.11	174	19	903	4.74	20	5	24.1	84.3	<3	47.3	<1	<0.2	<1	<5	65	<10	41	4	<5
A117S	553575	9092957	1	<0.5	0.04	0.39	1.5	0.02	0.04	0.43	0.54	559	59	1400	10.2	42	11	34.6	150	6	42.3	<1	<0.2	3	<5	85	<10	19	11	<5
A118S	554721	9093022	8	<0.5	0.04	0.6	1.99	0.03	0.09	0.64	0.16	233	18	1870	6.81	27	6	40.4	173	51	28.3	<1	<0.2	1	<5	102	<10	27	40	<5
B001S	532637	9118738	2	<0.5	0.04	1.15	3.14	0.01	0.09	0.66	0.38	477	37	1610	9.51	30	20	59	137	<3	101	<1	0.3	<1	<5	92	<10	13	<2	14
B002S	532730	9118808	1	<0.5	0.06	1.35	3.49	0.01	0.07	0.74	0.35	399	38	1540	8.61	32	27	67.3	108	<3	183	<1	<0.2	<1	<5	87	<10	9	<2	13
B003S	533028	9118506	2	<0.5	0.05	1.38	4.67	0.02	0.07	0.65	0.26	344	48	1580	8.91	36	28	82.8	94.3	<3	107	<1	0.3	<1	<5	137	<10	15	<2	10
B004S	532970	9118456	2	<0.5	0.04	1.13	3.18	0.02	0.08	0.64	0.31	405	31	1480	8.82	29	19	60	118	<3	104	<1	0.2	<1	<5	96	<10	12	<2	11
B005S	531468	9116984	1	<0.5	0.07	1.69	4.35	0.02	0.1	0.85	0.26	309	28	1460	7.7	28	20	78.8	104	<3	235	<1	<0.2	<1	<5	116	<10	12	<2	9
B006S	531491	9117054	<1	<0.5	0.06	1.47	3.54	0.01	0.06	0.78	0.39	433	30	1650	9.05	30	20	63.2	137	<3	137	<1	0.2	<1	<5	89	<10	10	<2	14
B007S	534283	9120714	<1	<0.5	0.05	1.36	4.11	0.01	0.05	0.64	0.34	412	63	1490	9.9	35	34	72.1	108	<3	88.8	<1	0.3	<1	<5	99	<10	13	<2	13
B008S	534245	9120722	1	<0.5	0.05	1.4	4.7	0.02	0.06	0.68	0.26	351	57	1680	9.15	38	32	77	96.1	<3	97.3	<1	0.3	<1	<5	123	<10	13	<2	10
B009S	534618	9116878	<1	<0.5	0.07	1.95	5.98	0.01	0.12	0.89	0.2	254	37	1270	7.56	34	28	94.7	81.8	<3	229	<1	<0.2	<1	<5	84	<10	10	<2	7
B010S	534608	9116902	<1	<0.5	0.06	1.86	5.19	0.01	0.1	0.78	0.23	287	39	1380	8	35	29	90.9	85.3	<3	147	<1	<0.2	<1	<5	81	<10	9	<2	8
B011S	533022	9115060	<1	<0.5	0.07	1.83	4.85	0.02	0.11	0.8	0.24	269	42	1290	7.47	31	32	103	92.3	<3	165	<1	<0.2	<1	<5	80	<10	8	<2	8
B012S	532967	9115072	<1	<0.5	0.07	1.45	4.38	0.02	0.1	0.81	0.22	277	28	1450	7.58	28	20	73.8	95.5	<3	197	<1	<0.2	<1	<5	126	<10	13	<2	8
B013S	532316	9115050	<1	0.6	0.04	0.75	2.74	0.01	0.08	0.53	0.65	602	39	1850	12.9	32	14	37.7	164	<3	255	<1	0.4	<1	<5	134	<10	16	4	26
B014S	532311	9115112	<1	<0.5	0.05	1.17	3.21	0.01	0.09	0.68	0.34	385	24	1400	8.35	28	16	61.1	113	<3	181	<1	0.3	<1	<5	95	<10	9	<2	13
B015S	532942	9116108	<1	<0.5	0.06	1.45	4	0.02	0.09	0.8	0.25	310	33	1420	7.88	28	21	72.6	102	<3	157	<1	<0.2	<1	<5	113	<10	12	<2	9
B016S	532995	9116078	1	<0.5	0.05	1.53	4.46	0.01	0.11	0.7	0.22	289	35	1220	7.43	32	27	79.3	84.1	<3	201	<1	<0.2	<1	<5	89	<10	8	<2	8
B017S	533375	9114536	<1	<0.5	0.04	1.03	3.56	0.01	0.08	0.57	0.26	290	16	1600	7.48	25	11	63.5	109	<3	152	<1	0.2	<1	<5	164	<10	17	<2	10
B018S	534075	9114646	2	<0.5	0.06	1.61	4.5	0.02	0.12	0.77	0.23	292	28	1220	7.54	31	23	100	92	<3	161	<1	<0.2	<1	<5	87	<10	8	<2	8
B019S	535069	9113276	<1	<0.5	0.1	1.49	4.4	0.02	0.11	0.84	0.18	237	27	1330	6.88	27	20	76	86.7	<3	192	<1	<0.2	<1	<5	121	<10	12	<2	6
B020S	535219	9113310	<1	<0.5	0.08	1.49	4.4	0.01	0.11	0.81	0.29	329	33	1240	7.95	29	24	78.2	96.6	<3	189	<1	0.2	<1	<5	77	<10	9	<2	11
B021S	535432	9113274	<1	<0.5	0.07	1.55	5.19	0.02	0.13	0.82	0.23	270	35	1400	7.74	30	25	79.6	94.6	<3	207	<1	<0.2	<1	<5	127	<10	10	<2	9
B022S	534313	9113678	<1	0.5	0.03	0.48	3.68	0.01	0.1	0.42	0.22	237	22	1590	7.16	22	11	35.4	93.8	<3	118	<1	0.3	<1	<5	222	<10	27	4	9
B023S	534792	9115048	<1	<0.5	0.07	1.81	5.76	0.01	0.12	0.86	0.19	240	37	1260	7.27	32	28	93.5	79.2	<3	225	<1	0.3	<1	<5	92	<10	8	<2	6
B024S	535274	9114388	<1	<0.5	0.1	1.29	4.32	0.01	0.13	0.89	0.23	282	27	1170	7.24	27	20	73.2	81	<3	202	<1	<0.2	<1	<5	95	<10	9	<2	8
B025S	535230	9114384	<1	<0.5	0.07	1.71	4.66	0.01	0.12	0.86	0.22	243	27	1220	7.01	30	23	85	78.4	<3	241	<1	<0.2	<1	<5	85	<10	7	<2	6
B026S	536915	9114914	<1	<0.5	0.07	1.68	4.62	0.01	0.11	0.89	0.18	234	37	1170	6.85	29	27	83.8	76.2	<3	244	<1	<0.2	<1	<5	86	<10	8	<2	6
B027S	537127	9114980	3	<0.5	0.05	1.43	4.86	0.02	0.15	0.74	0.21	306	33	1420	8.12	31	23	83.6	85.6	<3	196	<1	0.4	<1	<5	146	<10	10	<2	9
B028S	536179	9115658	3	<0.5	0.07	1.78	4.99	0.01	0.13	0.87	0.21	259	37	1260	7.32	31	29	84.9	79	<3	264	<1	<0.2	<1	<5	82	<10	8	<2	7
B029S	536965	9117960	1	<0.5	0.04	1.64	5.67	0.01	0.08	0.6	0.25	304	48	1370	8.92	34	31	94.8	88.1	<3	213	<1	0.2	<1	<5	114	<10	16	<2	9
B030S	536749	9116908	2	<0.5	0.05	1.63	5.71	0.01	0.07	0.72	0.21	275	45	1330	8.19	34	32	91.8	83.5	<3	212	<1	<0.2	<1	<5	128	<10	15	<2	8
B031S	536707	9116938	1	<0.5	0.06	2.05	5.57	0.01	0.12	0.84	0.23	280	56	1290	7.96	33	35	91.5	84	<3	273	<1	0.2	<1	<5	80	<10	8	<2	8
B032S	537832	9115752	1	<0.5	0.06	1.62	5.21	0.02	0.13	0.79	0.21	287	41	1320	7.9	31	28	86.4	82.3	<3	182	<1	0.3	<1	<5	130	<10	10	<2	8
B033S	532364	9117170	<1	0.6	0.04	0.89	4.58	0.01	0.08	0.52	0.46	519	30	1750	11.5	36	18	76.5	120	<3	104	<1	0.3	<1	<5	181	<10	24	7	19
B034S	542048	9118562	3	<0.5	0.15	1.34	3.73	0.02	0.11	1.33	0.21	261	22	993	6.05	23	21	60.7	72.6	<3	109	<1	<0.2	<1	<5	61	<10	<5	<2	7
B035S	541572	9118458	2	<0.5	0.18	1.82	5.03	0.03	0.16	1.68	0.2	228	25	1010	6.26	25	30	77.2	74.2	<3	141	<1	0.3	<1	<5	69	<10	7	<2	6
B036S	539874	9115584	<1	<0.5	0.11	1.31	2.63	0.04	0.1	1.1	0.25	264	14	1130	5.96	18	12	43.6	87.7	<3	80	<1	<0.2	<1	<5	41	<10	6	<2	9
B037S	540144	9115904	1	<0.5	0.17	1.42	3.03	0.03	0.11	1.26	0.25	288	18	1090	6.19	21	16	52.5	87	<3	83.1	<1	<0.2	<1	<5	35	<10	6	<2	7
B038S	540022	9115906	<1	<0.5	0.17	1.5	3.11	0.03	0.11	1.25	0.21	273	19	1110	6.22	21	17	55.2	85.2	<3	83.7	<1	<0.2	<1	<5	34	<10	5	<2	6
B039S	541670	9116576	1	<0.5	0.2	1.53	3.47	0.03	0.13	1.36	0.2	256	17	1070	5.9	21	17	57.7	81.1	<3	92.3	<1	<0.2	<1	<5	40	<10	5	<2	6
B040S	541647	9116808	<1	<0.5	0.14	1.04	2.99	0.03	0.08	1.25	0.32	362	17	1030	6.11	20	16	54.9	97.8	<3	70.1	<1	<0.2	<1	<5	35	<10	<5	<2	11
B041S	541983	9116518	<1	<0.5	0.12	1.19	3.17	0.03	0.14	1.12	0.28	331	18	1170	6.72	23	17	58.5	89.9	<3	81.1	<1	0.2	<1	<5	55	<10	7	<2	10
B042S	542572	9117556	2	<0.5	0.13	1.1	2.8	0.03	0.1	1.09	0.27	317	19	1000	6.27	20	15	49.7	89.4	<3	73.2	<1	<0.2	<1	<5	44	<10	7	<2	9
B043S	542115	9119322	1	<0.5	0.16	1.42	3.96	0.02	0.14	1.32	0.29	312	28	1180	7.18	27	25	63.1	80.6	<3	119	<1	<0.2	<1	<5	76	<10	6	<2	10
B044S	541857	9119936	<1	<0.5	0.14	1.87	4.33	0.02	0.11	1.43	0.21	234	28	1500	6.21	31	29	73.9	71.2	<3	135	<1	<0.2	<1	<5	83	<10	6	<2	6
B045S	542019	9120972	<1	<0.5	0.15	2.03	4.91	0.03	0.16	1.47	0.2	228	28	1170	6.39	27	30	78.2	72.9	<3	137	1	<0.2	<1	<5	82	<10	7	<2	6
B046S	542130	9121490	1	<0.5	0.17	1.33	3.5	0.03	0.08	1.53	0.24	319	25	941	7.46	23	19	49.8	84.2	<3	94.9	<1	<0.2	<1	<5	67	<10	<5	<2	8
B047S	539618	9120390	3	<0.5	0.18	1.74	4.46	0.03	0.11	1.43	0.23	241	29	1030	6.12	24	28	71.8	71.6	<3	119	<1	0.9	<1	<5	52	<10	8	<2	7

Table A-8 Results of Analysis of Geochemical Survey Samples (4/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
B048S	539798	9120228	8	<0.5	0.15	1.91	4.26	0.03	0.11	1.43	0.2	219	27	1020	5.98	24	31	72.7	69.1	<3	114	<1	0.3	<1	<5	54	<10	7	<2	6
B049S	539883	9120048	3	<0.5	0.13	1.83	4.68	0.02	0.13	1.38	0.19	218	19	1080	6.24	26	26	78.3	71.8	<3	161	<1	0.3	<1	<5	67	<10	5	<2	6
B050S	540124	9121132	5	<0.5	0.14	1.91	4.5	0.02	0.09	1.59	0.11	184	19	964	5.69	24	23	74.4	60.7	<3	103	<1	0.4	<1	<5	71	<10	<5	<2	<5
B051S	541574	9121560	1	<0.5	0.15	1.11	3.21	0.03	0.07	1.58	0.18	291	20	940	6.75	21	16	44.9	80.6	<3	89.5	<1	0.2	<1	<5	75	<10	<5	<2	7
B052S	541402	9121474	2	<0.5	0.14	1.71	3.84	0.02	0.08	1.38	0.19	255	24	921	6.71	23	23	60.9	72.6	<3	89.4	<1	<0.2	<1	<5	73	<10	<5	<2	6
B053S	568095	9117778	5	<0.5	0.02	0.35	1.29	<0.01	0.03	0.28	0.61	603	32	1660	13.8	27	14	24.3	203	<3	28.1	<1	<0.2	<1	<5	68	<10	8	5	25
B054S	567828	9118662	3	<0.5	0.03	0.4	1.65	0.01	0.08	0.3	0.31	447	31	1110	10	21	12	24.9	102	<3	33	<1	<0.2	<1	<5	80	<10	11	6	14
B055S	564421	9123546	11	0.5	0.07	0.37	2.02	<0.01	0.03	0.45	0.74	725	45	1600	15.7	34	18	26.2	156	<3	49.7	<1	0.2	<1	<5	145	<10	10	5	29
B056S	564322	9123032	9	<0.5	0.06	0.55	2.43	0.02	0.08	1.24	0.13	212	20	1120	5.97	17	11	29.1	76.7	<3	76.3	<1	<0.2	<1	<5	129	<10	13	4	6
B057S	557492	9122994	7	<0.5	0.13	0.28	1.73	0.01	0.02	0.77	0.54	528	47	954	10.8	23	14	14.3	109	<3	68.9	<1	0.6	<1	<5	69	<10	10	<2	21
B058S	557504	9123704	6	<0.5	0.1	0.25	1.34	0.01	0.02	0.62	0.53	506	60	828	10.5	22	14	12	108	<3	53.3	<1	0.2	<1	<5	49	<10	<5	<2	20
B059S	560556	9121076	11	<0.5	0.04	0.39	1.03	<0.01	0.02	0.29	0.73	757	56	1510	18	34	19	18.5	186	<3	22.2	<1	0.2	<1	<5	33	<10	<5	7	30
B060S	566046	9119576	4	<0.5	0.09	0.57	1.6	0.01	0.04	1.44	0.53	533	37	1410	12	24	16	20.3	168	<3	56.9	<1	<0.2	<1	<5	56	<10	<5	3	20
B061S	566079	9119446	7	<0.5	0.04	0.46	1.42	<0.01	0.06	1.22	0.61	674	49	1530	15	28	19	24.1	189	<3	56.8	<1	0.3	<1	<5	58	<10	<5	5	25
B062S	565150	9119030	3	<0.5	0.14	0.69	1.71	0.01	0.05	0.82	0.45	429	90	1300	7.78	19	32	17.5	138	<3	56.8	<1	<0.2	<1	<5	33	<10	<5	<2	16
B063S	568875	9121324	4	<0.5	0.05	0.56	1.96	0.01	0.06	0.64	0.55	602	52	1680	12.8	27	21	28.4	209	<3	53.3	<1	0.3	<1	<5	87	<10	5	5	22
B064S	569376	9122520	4	<0.5	0.04	0.38	1.05	<0.01	0.03	0.27	0.7	703	68	1960	15.2	29	21	21.7	198	<3	24.1	<1	0.2	<1	<5	52	<10	6	6	27
B065S	569166	9122622	3	<0.5	0.04	0.39	1.17	<0.01	0.03	0.25	0.66	688	46	1500	16.1	31	18	18.4	162	<3	25.6	<1	0.4	<1	<5	50	<10	<5	6	26
B066S	518436	9090162	10	<0.5	0.1	0.28	1.26	0.12	0.05	2.35	0.21	237	15	1230	7.39	12	6	13	126	41	84.6	<1	0.3	<1	<5	59	<10	33	10	10
B067S	520785	9088726	4	<0.5	0.07	0.45	1.72	0.04	0.03	0.97	0.55	514	20	1550	13.5	24	9	12.6	169	<3	102	<1	0.2	<1	<5	44	<10	9	5	22
B068S	520808	9088762	10	<0.5	0.05	0.23	1.06	0.05	0.06	3.76	0.08	114	15	708	3.98	7	4	9.4	64.1	17	227	<1	0.3	<1	<5	205	<10	112	5	<5
B069S	523023	9088520	10	<0.5	0.05	0.17	1.15	0.05	0.03	1.43	0.17	232	25	782	7.31	12	6	9.7	98	241	63.2	1	<0.2	<1	<5	343	<10	233	7	9
B070S	520852	9092408	2	<0.5	0.03	0.25	1.1	0.02	0.04	0.39	0.21	312	13	1250	10.5	13	7	19.4	135	20	29.7	<1	0.3	<1	<5	45	<10	26	10	11
B071S	520863	9092382	4	<0.5	0.02	0.37	2	0.01	0.03	0.36	0.23	310	19	1400	8.94	14	7	17.3	134	28	29.1	8	0.3	<1	<5	98	<10	50	5	11
B072S	521580	9092666	2	<0.5	0.02	0.27	1.01	<0.01	0.03	0.17	0.47	515	25	1680	16.2	20	11	17.1	204	<3	20.2	2	0.4	<1	<5	43	<10	<5	9	21
B073S	521270	9092874	1	<0.5	0.02	0.29	1.5	0.01	0.03	0.36	0.21	312	18	1280	8.67	13	6	15.5	130	26	23.7	<1	0.2	<1	<5	66	<10	39	6	11
B074S	517767	9090460	12	9.2	0.06	0.22	1.25	0.08	0.04	1.32	0.11	162	12	997	5.29	9	3	9.6	90.2	<3	77.5	<1	3.6	<1	<5	37	<10	12	4	6
B075S	517687	9090566	6	<0.5	0.05	0.29	1.52	0.05	0.04	1.28	0.1	145	9	1080	5.28	10	4	14.9	92.4	18	63.5	<1	0.2	<1	<5	63	<10	25	8	5
B076S	522918	9090920	4	<0.5	0.05	0.48	1.85	0.05	0.02	0.52	0.59	281	9	2150	13	17	5	10.3	192	<3	53.1	<1	0.3	<1	<5	50	<10	5	4	23
B077S	523268	9093134	5	<0.5	0.02	0.21	1.61	0.02	0.03	0.25	0.04	199	17	663	6.26	10	4	24.3	47.7	16	27.2	<1	4.1	<1	<5	45	<10	7	7	<5
B078S	523748	9093404	3	<0.5	0.02	0.45	1.66	<0.01	0.02	0.34	0.51	424	21	1720	12.1	22	8	17.5	162	<3	35.8	<1	0.2	<1	<5	72	<10	7	7	20
B079S	523804	9093404	7	<0.5	0.02	0.33	1.14	<0.01	0.03	0.21	0.7	822	44	1930	20.4	31	14	26.4	233	<3	25.3	<1	0.3	<1	<5	39	<10	5	10	30
B080S	521826	9094694	4	<0.5	0.01	0.19	0.76	<0.01	0.01	0.17	0.65	613	22	2230	18.4	26	10	17.5	305	9	11.5	<1	0.4	<1	<5	47	<10	206	10	29
B081S	525782	9093296	5	<0.5	0.03	0.44	1.93	0.02	0.04	0.42	0.17	350	21	1210	9.44	16	7	26.2	92.1	4	53	<1	<0.2	<1	<5	60	<10	7	7	9
B082S	525055	9089120	1	<0.5	0.03	0.2	1.36	0.03	0.03	1.18	0.15	257	17	867	7.49	14	6	13.6	102	7	77.4	<1	6.3	<1	<5	47	<10	10	5	8
B083S	525129	9089174	4	<0.5	0.04	0.26	1.23	0.03	0.02	1.39	0.56	544	39	1010	13.5	24	12	12.2	160	<3	43.7	<1	<0.2	<1	<5	30	<10	11	7	21
B084S	523283	9088086	1	<0.5	0.03	0.3	0.93	0.02	0.02	0.81	0.74	636	26	1870	18.5	27	11	15.4	238	16	38.2	<1	0.4	<1	<5	160	<10	29	9	30
B085S	550853	9096629	2	0.5	0.04	0.52	2.39	<0.01	0.05	0.58	0.59	531	35	1690	11.9	25	12	26	171	<3	99.7	<1	0.2	<1	<5	81	<10	19	3	21
B086S	550921	9096612	2	<0.5	0.03	0.37	1.54	<0.01	0.05	0.36	0.48	481	24	1620	12.4	22	10	20.1	180	<3	39	<1	0.2	<1	<5	70	<10	14	6	20
B087S	550799	9096882	2	<0.5	0.03	0.38	1.29	<0.01	0.03	0.18	0.83	681	36	2320	18.4	30	15	17	286	<3	23.5	1	0.6	<1	<5	46	<10	10	8	32
B088S	550302	9096970	2	<0.5	0.03	0.38	2.08	<0.01	0.05	0.44	0.46	424	24	1400	10.4	21	10	20.2	145	<3	76.5	<1	0.6	<1	<5	95	<10	18	4	18
B089S	550205	9097154	1	<0.5	0.03	0.46	2.02	0.03	0.08	0.45	0.43	310	15	1720	8.65	14	7	16.7	201	<3	45.6	<1	0.3	<1	<5	101	<10	20	6	16
B090S	547693	9095970	2	<0.5	0.03	0.35	1.54	<0.01	0.05	0.58	0.28	310	21	1140	8.25	16	10	18.9	139	<3	59.6	<1	<0.2	<1	<5	63	<10	18	8	12
B091S	547550	9095946	3	<0.5	0.02	0.51	2.31	0.02	0.07	0.46	0.24	294	30	1410	7.71	16	9	23.4	135	4	42.2	<1	0.2	<1	<5	121	<10	30	13	10
B092S	541143	9096268	4	<0.5	0.04	0.39	1.21	<0.01	0.07	0.24	0.12	146	30	685	3.74	11	12	17.9	94.1	3	20.1	<1	<0.2	<1	<5	54	<10	16	18	<5
B093S	540939	9096462	4	<0.5	0.06	0.15	1.21	<0.01	0.09	0.31	0.13	132	21	451	3.32	6	4	10.1	51.1	<3	29.5	<1	1.1	<1	<5	43	<10	13	5	6
B094S	540282	9096092	5	<0.5	0.03	0.68	1.99	0.02	0.11	0.24	0.06	155	24	1340	5.05	16	8	65.7	177	9	21.5	1	0.3	<1	<5	78	<10	23	-15	<5
B095S	540185	9096206	4	<0.5	0.04	0.27	1.19	<0.01	0.1	0.28	0.11	144	14	696	4.17	8	5	13.1	79.4	5	23.7	<1	0.9	<1	<5	65	<10	11	8	<5
B096S	539879	9096334	8	<0.5	0.03	0.45	1.51	0.01	0.08	0.26	0.07	137	20	1100	4.1	12	6	35.5	187	5	22.4	<1	<0.2	<1	<5	79	<10	14	12	<5
B097S	539804	9096504	1	<0.5	0.03	0.73	1.98	0.02	0.1	0.25	0.2	261	32	1700	7.31	22	13	91	272	9	20.5	<1	0.5	<1	<5	55	<10	25	14	9
B098S	539834	9096284	6	<0.5	0.03	1	2.12	0.02	0.11	0.24	0.08	203	27	1480	5.99	19	11	56.4	191	4	20.7	<1	0.2	<1	<5	128	<10	17	7	5
B099S	539322	9095416	3	<0.5	0.03	0.44	1.57	0.02	0.09	0.2	0.27	319	25	1240	7.81	19	10	43.9	131	5	17.1	<1	0.2	<1	<5	73	<10	36	15	11
B100S	539167	9095118	3	<0.5	0.04	0.47	1.49	0.02	0.1	0.24	0.2	230	17	1160	6.07	13	7	21.9	94.8	<3	19.5	<1	<0.2	<1	<5	55	<10	14	4	8
B101S	537800	9094416	5	<0.5	0.04	0.59	1.72	0.02	0.08	0.24	0.41	428	39	1620	10.2	24	12	52.7	159	<3	19.3	<1	0.3	<1	<5	55	<10	<5	17	16
B102S	547506	9096833	7	<0.5	0.02	0.43	0.94	<0.01	0.03	0.16	0.65	616	43	1550	14.4	27	16	24.9	198	<3	14.2	<1	0.2	<1	<5	32	<10	6	12	25

Table A-8 Results of Analysis of Geochemical Survey Samples (5/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
B103S	547435	9096733	5	<0.5	0.02	0.5	2.27	0.02	0.07	0.51	0.15	228	25	1230	6.5	14	8	22.7	126	4	50.4	<1	<0.2	<1	<5	114	<10	26	13	7
B104S	546365	9096586	6	<0.5	0.03	0.26	1.14	0.02	0.11	0.22	0.14	179	18	1030	5.52	11	6	21.5	137	9	19.9	<1	0.5	<1	<5	101	<10	21	46	7
B105S	546947	9096440	<1	<0.5	0.02	0.42	1.52	0.01	0.07	0.33	0.12	201	27	1790	5.81	12	7	33.4	272	5	25.5	<1	0.3	<1	<5	81	<10	11	77	7
B106S	538892	9093822	2	<0.5	0.02	0.44	1.48	0.02	0.09	0.33	0.11	232	19	919	6.24	14	9	28.1	91	7	19.3	<1	6	<1	<5	74	<10	17	18	6
B108S	498895	9111260	<1	<0.5	0.02	0.29	1.59	0.02	0.07	0.26	0.21	234	25	966	6.37	12	5	15.5	88.1	<3	27.3	<1	3.6	<1	<5	85	<10	8	12	10
B109S	496364	9111808	<1	<0.5	0.03	0.55	1.71	0.03	0.07	0.44	0.16	316	28	1210	7.39	17	7	27.5	127	<3	29.5	<1	4.6	<1	<5	69	<10	17	7	7
B110S	494930	9112768	<1	<0.5	0.03	0.78	2.24	0.02	0.06	0.53	0.09	259	24	1090	6.73	17	6	26	91	<3	41.4	<1	<0.2	<1	<5	76	<10	8	4	5
B111S	496036	9114068	<1	<0.5	0.03	0.8	2.01	0.03	0.07	0.44	0.05	265	27	1280	7.02	17	6	30.1	95.4	<3	35	<1	8.3	<1	<5	51	<10	7	5	<5
B112S	496052	9114128	1	<0.5	0.04	0.64	2.54	0.02	0.06	0.52	0.13	256	20	1040	6.78	18	5	24.9	78.6	9	40.7	<1	7.7	<1	<5	96	<10	7	4	6
B113S	495936	9114240	1	<0.5	0.04	0.42	2.14	0.02	0.05	0.48	0.16	278	20	1290	7.05	18	5	19.5	74	<3	42.4	<1	0.2	<1	<5	148	<10	16	7	8
B114S	495749	9114282	<1	<0.5	0.03	0.61	2.18	0.02	0.06	0.43	0.09	203	18	1140	6.41	14	4	19.3	87.4	<3	34.7	1	5.4	<1	<5	67	<10	7	5	6
B115S	495454	9118698	5	<0.5	0.08	0.33	1.76	0.01	0.02	2.29	0.56	449	46	1020	8.97	21	10	12.9	110	<3	89	<1	<0.2	<1	<5	73	<10	6	5	19
B116S	495682	9119444	2	<0.5	0.05	0.93	3.42	0.02	0.08	1.65	0.22	331	44	1030	7.63	21	15	35.2	84	<3	92.2	<1	<0.2	<1	<5	99	<10	9	<2	8
B117S	487732	9144258	3	<0.5	0.04	0.16	1.08	0.01	0.01	0.42	0.35	352	21	1230	8.26	17	6	9.2	102	<3	29	8	<0.2	<1	<5	153	<10	8	8	14
B118S	488420	9143766	<1	<0.5	0.04	0.22	1.82	0.01	0.02	0.42	0.46	468	18	1990	10.9	26	8	16.3	113	<3	36.5	<1	0.4	<1	<5	256	<10	19	10	19
B119S	491663	9143922	<1	<0.5	0.03	0.22	1.28	<0.01	0.01	0.21	0.63	593	28	1810	13.6	29	10	15.9	143	<3	19.6	<1	<0.2	<1	<5	192	<10	14	11	25
B120S	493601	9143568	1	<0.5	0.03	0.19	1.56	0.02	0.02	0.25	0.52	523	21	1450	12.2	23	8	12.5	141	<3	23.8	<1	0.2	<1	<5	136	<10	12	9	22
B121S	493746	9139980	<1	0.5	0.02	0.26	1.54	<0.01	0.02	0.17	0.74	686	33	1880	16.2	32	11	15.9	175	<3	19.9	<1	0.4	<1	<5	159	<10	10	9	30
B122S	493491	9141526	2	<0.5	0.03	0.22	1.45	<0.01	0.02	0.24	0.6	565	29	1600	13.6	26	9	12.8	154	<3	23.4	<1	0.4	<1	<5	139	<10	9	9	24
C001S	542785	9110478	1	<0.5	0.04	0.93	2.1	0.03	0.12	0.42	0.09	285	16	880	6.29	18	8	43	161	3	36.5	<1	0.2	<1	<5	108	<10	10	26	<5
C002S	548654	9125750	3	<0.5	0.18	0.17	1.64	0.02	0.02	1.33	0.21	194	44	459	3.93	8	5	7.1	60.2	<3	98.9	<1	<0.2	<1	<5	47	<10	7	10	7
C003S	549178	9141086	2	<0.5	0.06	0.26	0.94	0.04	0.02	0.39	0.71	649	41	1320	14	25	12	14.7	192	<3	27.6	<1	0.3	<1	<5	47	<10	49	5	27
C004S	549181	9141802	1	<0.5	0.29	0.19	2.8	0.01	0.04	1.86	0.07	88	25	508	2.03	6	3	9.5	26.5	<3	166	<1	<0.2	<1	<5	100	<10	7	<2	<5
C005S	547143	9140248	<1	<0.5	0.08	0.19	1.1	0.03	0.02	0.56	0.47	421	26	1010	8.84	18	9	9.8	114	<3	43.8	<1	<0.2	<1	<5	76	<10	7	3	16
C006S	548019	9139218	<1	<0.5	0.16	0.17	1.59	0.02	0.02	1.07	0.27	243	23	669	4.86	11	6	7.4	56.5	<3	87.7	<1	0.2	<1	<5	77	<10	<5	<2	9
C007S	548422	9137608	2	<0.5	0.05	0.25	0.86	0.03	0.01	0.48	0.73	655	36	1310	13.8	25	13	14.9	171	<3	28.1	<1	0.4	<1	<5	43	<10	6	4	27
C008S	530610	9137612	<1	<0.5	0.12	0.22	1.48	0.02	0.03	0.79	0.19	197	27	541	4.1	10	5	11.2	55.1	<3	67.7	<1	0.3	<1	<5	90	<10	5	<2	6
C009S	539897	9138090	<1	<0.5	0.08	0.17	1.64	0.04	0.03	0.58	0.36	336	16	973	7.3	17	8	16.7	80.7	<3	52.2	<1	0.4	<1	<5	128	<10	5	2	14
C010S	536626	9136748	<1	<0.5	0.05	0.18	1.16	0.04	0.02	0.39	0.48	424	28	1060	9.53	18	8	12.5	125	<3	33.3	<1	0.2	<1	<5	100	<10	<5	4	18
C011S	536612	9136722	<1	<0.5	0.07	0.29	1.37	0.03	0.04	0.85	0.42	438	37	1110	8.02	21	11	14.4	109	<3	47.9	<1	0.2	<1	<5	106	<10	<5	6	16
C012S	532873	9131346	2	<0.5	0.04	0.21	1.05	0.04	0.02	0.39	0.6	528	35	1140	11.2	22	10	11.2	154	<3	30.4	<1	0.2	<1	<5	86	<10	7	5	23
C013S	531646	9131242	<1	<0.5	0.04	0.21	0.84	0.03	0.01	0.3	0.7	606	27	1170	12.8	24	10	12	172	<3	22.6	<1	0.2	<1	<5	58	<10	5	5	27
C014S	527715	9131076	<1	<0.5	0.04	0.29	1.05	0.03	0.02	0.34	0.84	706	46	1530	14.8	29	14	13.6	198	<3	27	<1	0.2	<1	<5	79	<10	8	6	30
C015S	527603	9131098	4	0.5	0.03	0.37	1.29	<0.01	0.02	0.31	0.73	585	46	1160	11.1	29	16	13.3	140	<3	28.3	<1	0.4	<1	<5	64	<10	9	5	25
C016S	528305	9128738	1	<0.5	0.1	0.39	1.86	0.02	0.04	0.85	0.3	308	46	1050	6.32	18	10	14.9	82	<3	70.6	<1	<0.2	<1	<5	126	<10	5	4	10
C017S	528343	9128444	<1	<0.5	0.13	0.34	1.89	0.04	0.05	1.03	0.4	391	37	1110	6.31	20	11	21.7	105	<3	78.7	<1	0.3	<1	<5	129	<10	6	4	13
C018S	528431	9128462	1	<0.5	0.12	1.32	2.99	0.02	0.08	1.1	0.35	433	45	1030	7.75	25	19	45.5	103	<3	131	<1	<0.2	<1	<5	57	<10	6	<2	10
C019S	529224	9129384	5	<0.5	0.13	0.44	1.77	0.02	0.03	1.01	0.45	409	34	892	7.6	21	12	11.7	99.3	<3	60.9	<1	<0.2	<1	<5	74	<10	<5	2	15
C020S	529647	9129042	3	<0.5	0.12	0.87	2.5	0.02	0.06	1.04	0.29	333	37	949	6.5	21	14	30.3	86.9	<3	95.8	<1	0.2	<1	<5	90	<10	8	<2	9
C021S	530116	9128942	2	<0.5	0.1	1.65	3.68	0.02	0.08	1.21	0.12	231	23	1310	5.72	25	18	52.7	73.6	<3	136	<1	0.4	<1	<5	156	<10	13	<2	<5
C022S	530724	9128996	1	<0.5	0.11	1.12	2.81	0.02	0.14	0.94	0.08	177	21	1150	4.78	19	13	48	93.6	<3	119	<1	0.2	<1	<5	108	<10	6	16	<5
C023S	530621	9129046	1	<0.5	0.1	1.29	3.06	0.02	0.08	1.16	0.08	167	19	962	4.64	20	13	40.9	63.6	<3	118	<1	<0.2	<1	<5	114	<10	7	<2	<5
C024S	531219	9129152	3	<0.5	0.18	0.34	2.6	0.02	0.06	1.13	0.24	272	40	1810	5.84	21	8	23.1	66.2	<3	102	<1	0.2	<1	<5	274	<10	5	5	8
C025S	531060	9129842	3	<0.5	0.1	1.21	3.08	0.02	0.09	1.16	0.12	194	22	1050	5.01	20	14	42.7	73.6	<3	120	<1	0.2	<1	<5	110	<10	7	3	<5
C026S	537865	9132518	2	<0.5	0.08	0.4	1.43	0.03	0.05	0.89	0.63	645	83	1340	11.5	27	18	18.7	158	<3	53.3	<1	0.3	<1	<5	66	<10	10	7	23
C027S	537807	9132510	2	<0.5	0.11	0.33	1.88	0.03	0.06	1.62	0.21	262	27	954	5.38	16	9	18.6	71.7	<3	90.6	<1	<0.2	<1	<5	113	<10	8	3	6
C028S	537858	9132446	<1	<0.5	0.13	0.44	2	0.03	0.07	1.26	0.36	411	64	1230	7.83	20	14	20.1	113	<3	79.5	<1	<0.2	<1	<5	89	<10	9	6	12
C029S	538988	9132944	<1	<0.5	0.19	0.37	2.56	0.03	0.08	1.58	0.49	516	41	1440	9.5	26	15	24	108	<3	109	<1	0.2	<1	<5	110	<10	6	<2	17
C030S	536440	9126954	<1	<0.5	0.15	1.2	3.18	0.03	0.14	1.35	0.25	318	50	1090	6.58	25	21	53.5	87.6	<3	113	<1	0.2	<1	<5	82	<10	9	<2	7
C031S	536390	9126932	<1	<0.5	0.13	0.81	2.37	0.03	0.18	1.12	0.34	421	41	1170	8.78	29	20	57.2	101	<3	79.5	<1	<0.2	<1	<5	69	<10	8	8	12
C032S	536211	9126884	<1	<0.5	0.13	1.14	2.79	0.03	0.15	1.32	0.11	183	44	953	4.42	21	20	57.5	60.6	<3	85.9	<1	0.2	<1	<5	80	<10	<5	<2	<5
C033S	536003	9126734	<1	<0.5	0.11	0.85	2.26	0.03	0.13	1.17	0.24	311	34	923	5.89	20	17	41.2	77.8	<3	79.8	<1	0.2	<1	<5	53	<10	<5	<2	7
C034S	535730	9126832	2	<0.5	0.12	0.74	2.37	0.03	0.1	1.1	0.33	386	38	1210	6.98	24	17	33.4	86	<3	98	<1	0.2	<1	<5	85	<10	<5	<2	10
C035S	535741	9126856	1	<0.5	0.11	0.9	1.96	0.03	0.07	0.94	0.46	547	41	1040	8.93	23	19	35.2	117	<3	73.1	<1	0.3	<1	<5	31	<10	<5	4	15
C036S	535687	9127624	5	<0.5	0.14	0.72	2.7	0.03	0.12	1.16	0.12	204	29	913	5.45	19	11	48.2	66.7	<3	105	<1	0.3	<1	<5	118	<10	6	6	<5

Table A-8 Results of Analysis of Geochemical Survey Samples (6/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
C037S	534460	9128260	2	<0.5	0.09	0.41	1.46	0.03	0.09	0.76	0.43	454	29	1180	8.51	20	12	23.4	145	<3	57.1	<1	0.2	<1	<5	74	<10	<5	9	15
C038S	534914	9128922	<1	<0.5	0.02	0.24	0.61	0.04	0.01	0.25	0.79	679	46	1230	14	27	13	12.4	194	<3	15	<1	0.2	<1	<5	32	<10	<5	6	30
C039S	537726	9127054	3	<0.5	0.07	0.91	2.29	0.03	0.17	0.9	0.25	373	30	1100	7.93	28	17	57.8	91.2	<3	56.1	<1	0.3	<1	<5	88	<10	<5	6	10
C040S	537418	9124744	1	<0.5	0.16	1.23	3.29	0.02	0.18	1.48	0.17	250	35	1010	5.32	22	20	54	63	<3	104	<1	0.2	<1	<5	70	<10	<5	<2	<5
C041S	537709	9124490	1	<0.5	0.11	1.46	3.9	0.03	0.16	1.51	0.23	249	25	1420	5.91	29	27	69.2	68.8	<3	98.8	<1	0.3	<1	<5	101	<10	6	<2	6
C042S	538321	9124254	3	<0.5	0.17	1.47	3.68	0.02	0.1	1.4	0.42	454	67	1170	8.42	30	30	52.6	90.1	<3	135	<1	0.3	<1	<5	60	<10	5	<2	12
C043S	538344	9124246	<1	<0.5	0.21	1.46	4.13	0.03	0.16	1.66	0.26	267	33	1140	5.96	27	27	59.3	71.1	<3	160	<1	0.3	<1	<5	77	<10	9	<2	6
C044S	537393	9123582	<1	<0.5	0.18	1.52	3.79	0.03	0.1	1.49	0.37	341	47	836	7	25	32	60.6	80.6	<3	135	<1	0.2	<1	<5	48	<10	7	<2	10
C045S	537379	9123586	<1	<0.5	0.13	1.64	4	0.03	0.1	1.55	0.31	307	37	877	6.66	25	30	67.5	81.8	<3	120	<1	0.3	<1	<5	57	<10	7	<2	8
C046S	538157	9123242	<1	<0.5	0.16	1.67	4.4	0.02	0.14	1.6	0.29	308	46	1200	6.8	29	29	57.4	74.1	<3	208	<1	0.3	<1	<5	76	<10	8	<2	7
C047S	538225	9123312	<1	<0.5	0.15	1.72	3.98	0.02	0.09	1.33	0.33	380	50	1150	7.54	30	32	56	80.3	<3	131	<1	0.2	<1	<5	64	<10	7	<2	8
C048S	539105	9124450	<1	<0.5	0.12	1.41	3.29	0.03	0.13	1.3	0.26	328	49	1110	6.69	27	30	54.7	74.8	<3	110	<1	0.2	<1	<5	77	<10	5	<2	6
C049S	540774	9124416	<1	<0.5	0.08	1.43	2.94	0.02	0.14	1.02	0.2	317	28	1260	6.9	30	20	62.8	87.9	<3	68.9	<1	0.3	<1	<5	90	<10	<5	<2	5
C050S	549597	9144542	<1	<0.5	0.1	0.19	1.85	0.02	0.04	0.72	0.11	147	12	636	3.49	10	4	12.7	49.1	<3	60.4	<1	0.2	<1	<5	158	<10	16	4	<5
C051S	557435	9144124	<1	<0.5	0.12	0.22	1.4	0.04	0.05	0.68	0.1	108	13	433	2.61	7	4	13.2	43	<3	55.9	<1	<0.2	<1	<5	74	<10	<5	<2	<5
C052S	557458	9144196	<1	<0.5	0.12	0.24	1.13	0.05	0.03	0.65	0.29	303	53	688	6.83	13	7	12.6	107	<3	47.1	<1	<0.2	<1	<5	47	<10	<5	<2	10
C053S	554120	9142778	1	<0.5	0.22	0.31	2.13	0.02	0.04	1.42	0.1	104	21	622	2.55	7	4	12.6	35.8	7	122	<1	0.2	<1	<5	105	<10	7	<2	<5
C054S	558565	9137410	<1	<0.5	0.12	0.21	1.34	0.04	0.05	0.66	0.12	124	36	443	2.98	7	4	12.3	48.4	<3	55.6	<1	<0.2	<1	<5	68	<10	6	<2	<5
C055S	557874	9137674	<1	<0.5	0.09	0.26	1.05	0.04	0.03	0.5	0.39	400	36	844	8.63	17	9	13.4	128	<3	37	<1	0.2	<1	<5	49	<10	5	3	14
C056S	558753	9137370	<1	<0.5	0.09	0.2	1.04	0.05	0.03	0.53	0.23	245	34	574	5.41	11	6	12	85.6	<3	39.9	<1	<0.2	<1	<5	51	<10	5	<2	8
C057S	556734	9133610	2	<0.5	0.03	0.35	0.89	0.01	0.01	0.22	0.9	891	57	1310	16.4	37	19	17.4	176	<3	18.6	<1	0.3	<1	<5	40	<10	6	4	30
C058S	556403	9133050	3	<0.5	0.06	0.27	1	0.02	0.02	0.38	0.69	633	72	1050	11.6	27	16	14.4	130	<3	33.6	<1	<0.2	<1	<5	63	<10	6	3	23
C059S	551412	9127764	8	<0.5	0.05	0.33	1.18	0.01	0.03	0.44	0.58	557	37	1070	10.2	24	14	16.8	134	<3	40.3	<1	0.2	<1	<5	67	<10	7	6	19
C060S	552308	9127006	5	<0.5	0.2	0.34	2.33	0.03	0.03	1.21	0.72	656	70	1170	12	28	18	21.5	124	<3	119	<1	0.2	<1	<5	102	<10	21	<2	23
C061S	551425	9127972	4	<0.5	0.07	0.35	1.34	0.01	0.04	0.54	0.67	614	42	1140	11.6	28	16	18.3	132	<3	50.3	<1	<0.2	<1	<5	82	<10	6	5	19
C062S	552671	9129186	7	<0.5	0.04	0.32	0.96	0.01	0.01	0.28	0.82	769	68	1180	15.5	34	19	18.2	175	<3	24.1	<1	0.2	<1	<5	40	<10	5	4	29
C063S	554392	9134870	9	<0.5	0.06	0.18	1.15	0.03	0.03	0.43	0.3	310	28	692	6.06	15	7	12.4	86.1	<3	38	<1	<0.2	<1	<5	82	<10	6	3	10
C064S	553624	9133940	1	<0.5	0.09	0.24	1.18	0.04	0.03	0.53	0.39	413	33	802	8.26	18	9	14	115	<3	41.8	<1	0.4	<1	<5	59	<10	8	2	13
C065S	560957	9080874	2	<0.5	0.04	0.45	1.42	0.02	0.06	0.4	0.21	354	71	804	8.59	18	12	42.1	75.3	23	31.8	<1	0.2	<1	<5	38	<10	14	8	8
C066S	564394	9088762	<1	<0.5	0.01	0.22	1.5	0.02	0.03	0.18	0.17	424	27	1000	9.07	20	8	45.3	56.9	10	24.7	<1	0.2	<1	<5	114	<10	17	9	8
C067S	564819	9080694	4	<0.5	0.03	0.33	1.21	0.01	0.05	0.24	0.5	732	62	1060	14	28	17	43.5	92.2	<3	19.3	<1	<0.2	<1	<5	42	<10	38	9	19
C068S	566570	9081648	6	<0.5	0.04	0.53	1.7	0.02	0.07	0.42	0.44	616	62	1420	12	24	15	44.3	132	<3	35.8	<1	0.2	<1	<5	48	<10	16	7	16
C069S	567275	9081198	3	<0.5	0.04	0.49	1.54	0.03	0.07	0.42	0.31	381	52	1120	9.14	16	13	37	125	13	37.9	<1	0.3	<1	<5	32	<10	19	8	11
C070S	567290	9081528	<1	<0.5	0.04	0.48	1.54	0.03	0.08	0.41	0.11	182	25	779	7.43	13	10	38.6	96.9	24	38.1	1	0.3	<1	<5	32	<10	31	7	5
C071S	569044	9082936	<1	<0.5	0.07	0.51	1.97	0.02	0.09	0.57	0.28	369	55	1120	8.34	19	12	35	107	17	48.4	<1	0.3	<1	<5	42	<10	21	6	10
C072S	569515	9083540	2	<0.5	0.07	0.53	1.99	0.02	0.07	0.4	0.18	259	34	926	7.67	19	12	124	71.4	12	41.1	3	<0.2	<1	<5	45	<10	<5	9	7
C073S	569400	9083560	<1	<0.5	0.07	0.58	2.02	0.04	0.07	0.65	0.17	245	38	1030	6.85	15	11	36.3	89.4	16	67	<1	0.2	<1	<5	40	<10	<5	6	6
C074S	569444	9083606	<1	<0.5	0.04	0.42	1.46	0.03	0.08	0.36	0.11	161	25	766	7.67	15	11	31.9	106	29	34.8	<1	<0.2	<1	<5	32	<10	<5	8	6
C075S	568625	9082676	<1	<0.5	0.06	0.56	2.28	0.03	0.06	0.65	0.05	263	43	1260	7.8	17	10	30.7	84.7	<3	54.5	<1	<0.2	<1	<5	39	<10	<5	4	<5
C076S	568013	9082216	<1	<0.5	0.1	0.61	2.44	0.03	0.13	0.8	0.48	609	59	1350	11.6	23	16	45	135	7	66.2	<1	0.3	<1	<5	50	<10	<5	4	17
C077S	568165	9091004	<1	<0.5	0.1	0.35	2.2	0.01	0.08	0.67	0.43	454	38	1100	9.3	22	14	23.4	98.7	10	75.7	<1	<0.2	<1	<5	67	<10	<5	7	15
C078S	568188	9091042	<1	<0.5	0.04	0.44	1.64	0.01	0.07	0.43	0.43	471	52	1350	10.2	24	13	30.7	137	21	36.2	<1	<0.2	<1	<5	56	<10	<5	56	15
C079S	568030	9091428	5	<0.5	0.07	0.35	1.65	0.01	0.05	0.53	0.31	436	49	1200	9.49	19	14	18.6	106	<3	54	<1	0.3	<1	<5	46	<10	<5	6	12
C080S	567079	9092214	<1	<0.5	0.03	0.39	1.72	0.02	0.07	0.58	0.21	419	47	1210	8.09	22	13	25.5	167	11	40.9	<1	<0.2	<1	<5	60	<10	<5	7	8
C081S	567032	9092260	3	0.7	0.1	0.56	2.38	<0.01	0.06	0.76	0.8	869	119	1550	16	32	25	27.6	188	<3	86.5	<1	<0.2	<1	<5	44	<10	21	3	21
C082S	567037	9092246	2	0.6	0.05	0.53	1.88	0.01	0.05	0.88	0.66	723	83	1360	12.7	30	21	21	170	5	111	<1	<0.2	<1	<5	52	<10	17	4	16
C083S	568118	9092421	2	0.7	0.08	0.45	2.07	0.01	0.06	1.31	0.69	759	111	1450	14.7	29	22	26	208	9	124	<1	<0.2	<1	<5	66	<10	33	6	17
C084S	568218	9092437	1	0.6	0.04	0.4	1.17	<0.01	0.05	0.34	0.86	831	70	1260	16.8	34	22	29.6	155	8	29.5	<1	<0.2	<1	<5	27	<10	11	16	23
C085S	568309	9092872	10	0.8	0.05	0.45	1.59	0.01	0.03	1.54	1.16	1030	185	1660	19.1	41	33	26.5	205	3	136	1	0.3	<1	<5	65	<10	24	7	29
C086S	568672	9096468	2	0.7	0.03	0.42	1.23	<0.01	0.02	0.47	1.27	1180	96	1640	23.2	52	32	26.6	220	<3	43.3	<1	0.4	<1	<5	42	<10	12	4	35
C087S	568582	9096414	<1	<0.5	0.04	0.3	1.79	0.01	0.07	0.91	0.25	398	49	1350	8.98	24	14	25.2	131	21	59	<1	<0.2	<1	<5	76	<10	33	9	<5
C088S	569107	9095792	4	0.6	0.07	0.26	1.43	<0.01	0.06	0.53	0.63	550	40	1110	11.2	23	13	15.8	161	<3	57.1	<1	<0.2	<1	<5	52	<10	9	3	15
C089S	569144	9095596	5	0.8	0.08	0.39	1.74	<0.01	0.03	0.8	1.06	997	81	1520	18.5	43	26	24.4	199	<3	73.8	<1	<0.2	<1	<5	57	<10	16	5	29
C090S	569140	9095562	3	0.5	0.09	0.33	3.02	0.02	0.04	1.47	0.34	381	40	1350	7.86	23	11	28.8	81.8	7	122	<1	<0.2	<1	<5	143	<10	34	4	7
C091S	569310	9093502	2	<0.5	0.1	0.25	1.82	<0.01	0.05	2.52	0.48	488	52	922	10.2	24	16	20.3	93.1	22	82.1	1	<0.2	<1	<5	43	<10	43	4	11

Table A-8 Results of Analysis of Geochemical Survey Samples (7/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
C092S	553966	9089362	5	0.6	0.09	0.32	2.4	0.01	0.06	1.64	0.38	471	59	1530	9.7	29	14	29	103	32	125	1	<0.2	<1	<5	74	<10	36	7	8
C093S	553952	9089910	<1	0.7	0.04	0.49	2.46	0.02	0.06	0.62	0.29	409	32	958	8.66	21	8	25.4	135	17	162	<1	<0.2	<1	<5	78	<10	69	6	6
C094S	553653	9089580	1	0.6	0.09	0.33	1.84	<0.01	0.04	1.17	0.71	722	71	1330	13	32	19	24.8	140	10	92.7	<1	<0.2	<1	<5	43	<10	19	6	17
C095S	551910	9088686	<1	<0.5	0.03	0.55	2.38	0.01	0.07	0.49	0.17	322	31	1380	7.96	25	9	26.9	84.2	9	75.6	<1	<0.2	<1	<5	85	<10	18	5	<5
C096S	552096	9089196	5	0.6	0.04	0.41	1.24	<0.01	0.03	0.69	0.88	982	83	1660	18.9	36	23	30.8	224	5	51.5	<1	0.3	<1	<5	28	<10	12	6	24
C097S	552082	9089260	2	0.5	0.03	0.43	1.8	0.01	0.1	0.45	0.35	439	43	1190	9.09	23	12	23.6	119	22	40.2	<1	<0.2	<1	<5	74	<10	23	5	8
C098S	551863	9088774	1	<0.5	0.05	0.45	1.5	0.03	0.02	0.55	0.29	503	56	1110	10.3	19	16	26.2	122	7	54.7	<1	<0.2	<1	<5	38	<10	7	4	7
C099S	550898	9089058	1	0.5	0.05	0.44	1.63	0.01	0.06	0.9	0.53	682	55	1430	13	26	16	26.5	187	10	75.8	<1	<0.2	<1	<5	53	<10	18	5	13
C100S	550475	9087662	4	<0.5	0.06	0.32	1.91	<0.01	0.05	1.58	0.34	422	44	1410	9.13	26	14	23.4	98.8	20	111	1	<0.2	<1	<5	62	<10	25	8	8
C101S	549727	9089902	1	<0.5	0.04	0.29	1.25	0.02	0.12	0.32	0.33	377	45	860	8.02	17	11	16.8	90	6	30	<1	<0.2	<1	<5	51	<10	41	4	8
C102S	548969	9088384	1	<0.5	0.04	0.18	1.49	0.01	0.07	1.04	0.21	243	39	908	5.86	17	9	18.8	70.4	26	50.1	1	<0.2	<1	<5	68	<10	36	7	<5
C103S	542168	9094278	1	<0.5	0.02	0.39	1.21	0.01	0.12	0.38	0.39	446	40	1190	9.57	21	12	51.5	278	<3	40.6	<1	0.2	1	<5	252	<10	18	29	9
C104S	543626	9094810	1	<0.5	0.03	0.33	1.23	<0.01	0.08	0.3	0.16	244	32	1160	5.91	12	7	15.1	116	<3	34.4	<1	<0.2	<1	<5	47	<10	16	13	<5
C105S	543563	9094824	<1	0.5	0.02	0.37	1.16	<0.01	0.1	0.28	0.64	614	41	1440	12.9	26	14	37.8	223	<3	33.6	<1	<0.2	<1	<5	107	<10	16	11	17
C106S	544008	9096062	5	<0.5	0.02	0.64	1.76	0.02	0.08	0.39	0.12	268	57	1260	6.53	20	9	33.9	130	4	34.7	<1	<0.2	<1	<5	71	<10	13	24	<5
C107S	543955	9096050	1	0.6	0.02	0.4	0.92	<0.01	0.04	0.17	0.83	745	50	1500	15.6	31	18	26.2	208	<3	16.1	<1	0.4	<1	<5	31	<10	18	13	21
C108S	543896	9096215	<1	<0.5	0.03	0.58	1.63	0.02	0.1	0.4	0.22	342	42	1280	7.42	17	9	22.8	120	3	47	<1	<0.2	<1	<5	68	<10	17	10	<5
C109S	543306	9095210	<1	0.5	0.02	1.07	2.21	<0.01	0.09	0.36	0.53	490	60	1740	10.9	28	19	35.1	168	<3	97.4	<1	<0.2	<1	<5	79	<10	15	2	12
C110S	543057	9095382	<1	<0.5	0.02	1.07	2.01	<0.01	0.06	0.36	0.33	377	36	1280	8.52	24	16	31.2	135	<3	41.3	<1	<0.2	<1	<5	63	<10	11	2	6
C111S	542147	9094884	<1	<0.5	0.02	0.31	1.18	<0.01	0.09	0.2	0.39	418	29	1130	9.39	21	11	17.8	110	<3	24.6	<1	<0.2	<1	<5	56	<10	13	7	9
C112S	542178	9094892	<1	<0.5	0.02	1.31	2.22	<0.01	0.06	0.33	0.24	336	36	1360	8.18	25	17	36.8	116	<3	41.7	<1	<0.2	<1	<5	55	<10	44	<2	<5
C113S	543224	9099284	<1	<0.5	0.02	0.26	1.33	0.01	0.09	0.11	0.15	205	29	803	5.17	15	7	30.2	101	<3	19.1	<1	<0.2	<1	<5	71	<10	18	24	<5
C114S	542995	9099252	<1	<0.5	0.01	0.27	1.08	0.01	0.05	0.11	0.14	194	23	1090	5.31	15	7	51.8	125	<3	14.2	<1	<0.2	<1	<5	48	<10	13	25	<5
C115S	543006	9099215	<1	<0.5	0.01	0.37	1.28	0.02	0.06	0.13	0.08	160	16	1070	4.45	13	6	41.2	134	<3	19.5	<1	<0.2	<1	<5	71	<10	17	18	<5
C116S	543306	9099192	7	<0.5	0.03	0.23	1.45	0.01	0.11	0.24	0.06	91	14	1330	2.93	11	4	28.1	148	4	31.1	<1	0.2	<1	<5	115	<10	22	48	<5
C117S	543735	9099345	<1	<0.5	0.01	0.42	1.29	0.02	0.07	0.14	0.08	158	15	1140	4.6	13	5	41.7	163	<3	20.9	<1	<0.2	<1	<5	72	<10	15	13	<5
C118S	543735	9099410	<1	<0.5	0.02	0.44	1.7	0.02	0.09	0.21	0.22	327	27	986	7.15	19	9	26.3	99.1	<3	30.7	<1	0.2	<1	<5	85	<10	18	12	<5
C119S	543873	9099416	<1	<0.5	0.02	0.48	1.39	0.02	0.09	0.16	0.22	286	27	1100	6.32	16	8	42.7	163	<3	18.9	<1	<0.2	<1	<5	66	<10	15	7	<5
C120S	543873	9099392	<1	<0.5	0.02	0.44	1.41	0.02	0.06	0.15	0.22	284	22	1210	7.36	19	8	44.9	214	<3	22.8	<1	0.2	<1	<5	71	<10	17	21	<5
C122S	542950	9101535	<1	0.5	0.02	0.54	1.03	<0.01	0.05	0.17	0.57	626	38	1050	12.2	26	16	26.8	123	<3	15.3	<1	<0.2	<1	<5	25	<10	11	10	14
C123S	486924	9113422	<1	<0.5	0.09	0.21	1.82	0.02	0.02	6.87	0.08	215	36	3410	4.05	27	8	21.7	30.8	10	113	<1	0.4	<1	<5	586	<10	9	10	<5
C124S	487323	9114230	<1	<0.5	0.1	0.16	1.74	0.02	0.03	3.06	0.03	178	16	2410	3.25	25	6	18.2	27.7	5	114	<1	0.3	<1	<5	379	<10	15	9	<5
C125S	489862	9114506	<1	<0.5	0.12	0.31	2.32	0.01	0.03	1.8	0.06	224	19	3920	4.3	31	8	24.3	41.5	7	122	<1	0.5	<1	<5	591	<10	9	10	<5
C126S	489856	9114508	<1	<0.5	0.09	0.21	1.52	0.02	0.02	1.85	0.13	204	23	2040	3.89	18	5	13.8	41	5	80.7	<1	0.2	<1	<5	332	<10	7	6	<5
C127S	491023	9114533	<1	0.5	0.07	0.45	2.43	<0.01	0.05	1.92	0.02	231	21	2850	4.24	31	7	32.1	41	4	110	<1	0.3	<1	<5	507	<10	8	8	<5
C128S	490451	9114334	<1	<0.5	0.08	0.22	1.53	0.02	0.01	3.51	0.03	187	14	3850	3.22	29	7	19.9	30.2	4	112	<1	0.4	<1	<5	745	<10	15	10	<5
C129S	492079	9112898	<1	<0.5	0.09	0.21	1.82	0.02	0.02	6.87	0.08	215	36	3410	4.05	27	8	21.7	30.8	10	113	<1	0.4	<1	<5	586	<10	14	10	<5
C130S	492502	9112384	6	<0.5	0.1	0.15	1.71	0.05	0.03	9.8	0.16	184	29	562	3.94	10	6	16.8	59.3	<3	108	1	<0.2	<1	<5	61	<10	18	6	<5
C131S	494096	9112592	<1	<0.5	0.07	0.22	1.8	0.03	0.04	12.5	0.13	177	29	751	4	11	8	20.3	222	<3	248	<1	0.3	<1	<5	82	<10	77	7	<5
C132S	493946	9113760	<1	<0.5	0.08	0.26	1.93	0.05	0.06	12.1	0.11	160	26	644	3.79	11	8	24.7	68.7	<3	239	1	0.3	<1	<5	115	<10	29	10	<5
C133S	493460	9117978	2	0.5	0.08	0.33	1.95	0.03	0.04	2.76	0.32	307	30	1130	6	18	9	16.8	103	<3	106	<1	<0.2	<1	<5	149	<10	13	11	5
C134S	492588	9118998	<1	<0.5	0.11	0.18	1.72	0.04	0.02	1.88	0.16	187	30	844	4.54	12	6	9.6	50	<3	173	<1	<0.2	<1	<5	129	<10	11	5	<5
C135S	494623	9118898	<1	<0.5	0.11	0.15	1.6	0.03	0.01	2.17	0.06	130	16	1450	2.77	13	5	12.1	29.6	<3	145	<1	<0.2	<1	<5	260	<10	9	6	<5
C136S	509607	9116532	<1	0.6	0.02	0.25	2.01	0.02	0.05	0.25	0.32	373	24	1320	8.73	22	8	29.3	87.6	<3	40.7	<1	<0.2	<1	<5	167	<10	46	20	6
C137S	509637	9116550	3	0.6	<0.01	0.28	2.04	0.03	0.07	0.22	0.18	336	28	1360	8.42	23	8	31.2	74.2	<3	36.1	<1	<0.2	<1	<5	159	<10	38	15	<5
C138S	509609	9116573	<1	0.5	0.02	0.32	1.82	0.03	0.07	0.23	0.13	257	21	1180	7.18	17	6	32.8	94.7	<3	33.8	<1	<0.2	<1	<5	109	<10	30	20	<5
C139S	502729	9119192	<1	0.7	0.01	0.45	2.22	0.03	0.05	0.5	0.41	383	28	1660	8.06	26	13	22.7	91.3	<3	41	<1	<0.2	<1	<5	151	<10	35	3	7
C140S	503066	9119289	<1	0.6	0.03	0.74	2.43	0.01	0.06	0.56	0.35	387	47	1010	7.61	24	17	27	95.5	<3	50	<1	<0.2	<1	<5	84	<10	22	<2	6
C141S	503092	9119478	<1	0.7	<0.01	0.47	3.17	0.01	0.19	0.51	0.12	243	41	3390	7.31	27	23	34.5	53.1	4	55.5	<1	0.4	<1	<5	224	<10	45	8	<5
C142S	505199	9118756	7	<0.5	0.03	0.45	1.6	0.03	0.05	0.42	0.24	369	28	1100	7.63	20	10	30.8	138	<3	29.8	<1	<0.2	<1	<5	72	<10	15	11	<5
C143S	505253	9118692	<1	0.5	0.05	0.96	2.64	0.02	0.07	0.81	0.33	473	41	1160	8.5	23	13	32.3	112	<3	60.4	<1	<0.2	<1	<5	65	<10	20	<2	<5
C144S	505250	9118626	18	<0.5	0.04	0.76	2.12	0.03	0.12	0.66	0.07	198	20	1290	5.46	17	8	30	101	4	53.1	<1	<0.2	<1	<5	66	<10	15	10	<5
C145S	508305	9118810	<1	0.5	0.02	0.41	2.59	0.03	0.09	0.28	0.12	229	26	1250	6.68	19	8	36.8	92.8	<3	40.1	<1	<0.2	<1	<5	129	<10	33	19	<5
C146S	508270	9118746	18	0.5	0.02	0.4	1.85	0.03	0.06	0.25	0.21	340	28	1280	8.18	22	9	34.7	118	<3	32.6	<1	<0.2	<1	<5	103	<10	25	25	<5
C147S	508331	9118590	<1	<0.5	0.02	1.23	2.59	0.02	0.07	0.46	0.08	266	47	1270	7.34	30	15	50.9	161	<3	35	<1	<0.2	<1	<5	70	<10	13	64	<5

Table A-8 Results of Analysis of Geochemical Survey Samples (8/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
C148S	509216	9120192	<1	<0.5	0.02	0.66	2.03	0.04	0.08	0.35	0.06	180	23	1440	5.87	21	8	53.6	159	3	31.2	<1	<0.2	<1	<5	84	<10	14	55	<5
C149S	509657	9120168	<1	0.6	0.01	0.21	1.51	0.02	0.08	0.17	0.36	384	22	1600	9.13	19	8	22.5	152	<3	17	<1	<0.2	<1	<5	82	<10	19	11	9
C150S	508733	9120154	<1	<0.5	0.02	0.5	1.58	0.03	0.07	0.33	0.05	206	19	1450	5.62	17	6	33.4	132	<3	31.6	<1	<0.2	<1	<5	137	<10	17	48	<5
C151S	508501	9119976	9	<0.5	0.02	0.51	1.72	0.03	0.09	0.3	0.12	246	23	1260	6.88	19	7	32.7	120	<3	27.1	<1	<0.2	<1	<5	95	<10	23	41	<5
C152S	507926	9120044	<1	0.5	0.02	0.42	1.94	0.03	0.06	0.31	0.13	232	19	1290	6.56	19	7	34	87.6	<3	41.8	1	<0.2	<1	<5	125	<10	27	30	<5
C153S	507770	9119964	<1	0.6	0.02	0.47	1.86	0.02	0.04	0.44	0.4	351	24	1040	7.22	20	10	21.3	89.2	<3	43.6	<1	<0.2	<1	<5	96	<10	16	6	6
C154S	507333	9120162	<1	0.8	0.03	0.56	1.55	0.01	0.03	0.4	0.9	716	78	1230	12.1	30	20	16.2	143	<3	32.6	<1	<0.2	<1	<5	61	<10	11	4	20
C155S	506706	9120588	5	0.5	0.03	0.75	3.02	0.03	0.07	0.69	0.12	266	25	1170	6.42	21	10	34.9	59.1	<3	63.6	1	<0.2	<1	<5	146	<10	15	4	<5
C156S	506451	9120840	<1	<0.5	0.03	0.89	2.82	0.02	0.07	0.67	0.14	264	25	1000	6.23	20	10	35.1	75.3	<3	58.3	<1	<0.2	<1	<5	107	<10	16	3	<5
C157S	504688	9120932	<1	0.7	0.02	0.4	2.83	0.01	0.06	0.46	0.24	305	18	1250	7.42	21	7	29.5	55.7	<3	52.9	<1	<0.2	<1	<5	196	<10	15	5	<5
C158S	505388	9121006	<1	<0.5	0.07	0.34	2.02	0.02	0.04	0.76	0.12	202	23	1800	4.62	18	6	25.3	52.1	<3	72.8	<1	<0.2	<1	<5	281	<10	18	9	<5
C159S	506783	9121442	<1	0.7	0.03	0.56	2.64	0.02	0.06	0.53	0.38	436	28	977	7.82	23	10	29.2	83	<3	50.8	<1	<0.2	<1	<5	131	<10	26	5	7
C160S	506722	9121448	<1	0.6	0.03	0.61	2.26	0.01	0.04	0.57	0.26	340	32	1280	7.27	22	10	26.6	71.9	<3	48.1	<1	<0.2	<1	<5	132	<10	16	5	<5
D001S	542757	9110416	1	<0.5	0.03	1.36	2.11	0.04	0.1	0.36	0.1	220	26	995	6	15	13	39.9	139	<3	25.1	<1	<0.2	<1	<5	58	<10	<5	10	<5
D002S	548823	9114112	2	<0.5	0.1	0.42	1.6	0.02	0.09	0.66	0.74	588	68	1540	12.4	25	22	19.2	246	7	58.3	<1	0.2	<1	<5	73	<10	<5	14	24
D003S	549812	9112352	1	<0.5	0.05	0.47	1.56	0.03	0.13	0.45	0.14	168	24	1190	4.9	11	10	15.2	122	<3	38.8	<1	0.3	<1	<5	89	<10	7	25	5
D004S	550515	9109892	<1	<0.5	0.06	0.69	1.83	0.02	0.11	0.56	0.22	214	21	1350	5.97	13	12	17.2	119	<3	51.8	<1	<0.2	<1	<5	75	<10	6	14	7
D005S	550430	9109926	<1	<0.5	0.05	0.74	1.88	0.03	0.1	0.56	0.2	230	23	1220	5.55	12	11	22.2	157	7	37.4	<1	0.3	<1	<5	69	<10	<5	20	7
D006S	550035	9110584	3	<0.5	0.03	0.64	1.7	0.03	0.16	0.37	0.03	87	23	1360	3.53	10	10	23.9	153	3	29.2	<1	<0.2	<1	9	84	<10	6	57	<5
D007S	550355	9110882	<1	<0.5	0.07	0.9	2.27	0.02	0.11	0.7	0.21	233	20	1170	5.73	15	10	20	118	<3	84	<1	<0.2	<1	<5	83	<10	6	<2	7
D008S	551855	9112130	<1	<0.5	0.08	0.82	2.06	0.03	0.08	0.86	0.35	349	29	1270	6.67	16	15	26.1	123	<3	53.2	<1	<0.2	<1	<5	64	<10	<5	<2	11
D009S	551874	9112250	<1	<0.5	0.08	0.97	2.31	0.02	0.05	0.92	0.46	433	38	1240	8.27	23	17	30.3	107	<3	56.5	<1	<0.2	<1	<5	62	<10	<5	<2	14
D010S	552220	9114790	2	<0.5	0.06	0.97	2.39	0.01	0.08	0.68	0.21	297	26	1450	7.04	25	17	37.7	81.1	<3	54.9	1	<0.2	<1	<5	123	<10	8	2	8
D011S	555562	9115696	<1	<0.5	0.05	0.9	1.96	0.02	0.11	0.54	0.35	387	36	1220	7.91	20	17	31.7	124	<3	38.5	<1	<0.2	<1	<5	57	<10	5	7	12
D012S	553906	9116168	4	<0.5	0.05	0.74	1.71	0.02	0.08	0.55	0.44	453	40	1130	8.65	21	18	28.3	127	<3	38.6	<1	<0.2	<1	<5	54	<10	<5	6	15
D013S	558060	9116380	<1	<0.5	0.07	0.66	1.83	0.02	0.07	0.7	0.29	243	27	1350	5.81	15	14	20.7	107	<3	51.7	<1	0.3	<1	<5	69	<10	<5	3	8
D014S	558195	9116430	<1	<0.5	0.07	1.06	2.39	0.02	0.08	0.74	0.26	297	30	1110	6.7	19	16	32.5	92.8	<3	49.5	<1	<0.2	<1	<5	70	<10	<5	3	8
D015S	559990	9117343	<1	<0.5	0.15	1.01	2.66	0.02	0.08	1.17	0.47	455	39	1150	8.7	22	17	31.5	117	<3	77	1	0.2	<1	<5	75	<10	<5	4	15
D016S	559829	9117260	<1	<0.5	0.1	0.84	1.91	0.02	0.05	0.79	0.57	540	41	1140	9.86	23	18	24.3	119	<3	55.9	<1	0.3	<1	<5	52	<10	<5	<2	17
D017S	559409	9116686	<1	<0.5	0.13	0.94	2.36	0.02	0.1	0.95	0.39	357	28	1170	6.84	19	14	25.8	97	<3	68.8	<1	<0.2	<1	<5	70	<10	<5	<2	12
D018S	559487	9116660	<1	<0.5	0.09	0.84	2.35	0.02	0.06	0.84	0.5	465	35	1340	8.93	24	17	26.4	106	<3	63.6	<1	0.2	<1	<5	97	<10	6	<2	16
D019S	555624	9115804	<1	<0.5	0.08	0.57	1.71	0.02	0.09	0.56	0.48	468	47	1300	9.7	20	17	22.9	141	<3	44.5	<1	<0.2	<1	<5	66	<10	5	5	17
D020S	555086	9117106	<1	<0.5	0.04	0.46	1.91	0.02	0.14	0.45	0.12	175	20	2120	4.38	23	13	42	106	<3	44.6	<1	0.2	<1	<5	239	<10	8	14	5
D021S	557578	9117783	<1	<0.5	0.07	0.45	1.44	0.02	0.11	0.53	0.21	215	28	981	5.56	12	13	16.1	91.9	<3	44.1	<1	<0.2	<1	<5	67	<10	<5	7	8
D022S	559679	9117382	<1	<0.5	0.16	1.01	2.56	0.03	0.07	1.33	0.58	496	49	1110	8.75	20	17	23	116	<3	69.9	<1	<0.2	<1	<5	53	<10	<5	<2	17
D023S	560261	9118078	3	<0.5	0.08	0.83	2.54	0.01	0.13	0.86	0.3	363	30	1910	7.93	30	17	46.8	99.2	<3	65.4	4	0.2	<1	<5	156	<10	<5	4	10
D024S	563442	9111414	<1	<0.5	0.05	1.25	2.96	0.02	0.07	0.9	0.24	266	26	1260	6.78	20	14	34.7	101	<3	68	7	<0.2	<1	<5	110	<10	10	<2	7
D025S	563380	9111292	<1	0.7	0.1	0.71	2.69	0.01	0.09	0.75	0.89	612	56	1790	13.4	27	21	25.4	178	<3	75.5	<1	0.2	<1	<5	104	<10	9	<2	27
D026S	564081	9111446	<1	<0.5	0.05	0.95	2.81	0.02	0.1	0.84	0.16	244	21	1570	6.49	21	14	38.3	93.5	<3	100	<1	0.3	<1	<5	92	<10	10	<2	6
D027S	565135	9111104	<1	<0.5	0.09	0.61	2.97	0.02	0.13	0.86	0.34	332	44	1320	7.95	19	19	25	110	<3	85.4	<1	<0.2	<1	<5	129	<10	23	<2	12
D028S	565156	9111636	<1	0.5	0.02	0.39	2.4	0.02	0.05	0.39	0.35	364	29	1470	9.27	21	16	31	113	<3	57.2	<1	<0.2	<1	<5	161	<10	20	5	13
D029S	559416	9110174	<1	0.9	0.05	0.38	3.12	<0.01	0.05	0.5	0.75	454	25	1550	12	24	14	28.6	125	<3	52.1	<1	0.4	<1	<5	187	<10	21	4	24
D030S	559256	9110236	<1	0.7	0.08	0.47	2.18	0.01	0.05	0.76	0.7	361	27	1100	8.58	17	14	17.6	112	<3	61	<1	0.4	<1	<5	85	<10	12	3	21
D031S	559219	9110340	<1	0.7	0.03	0.38	2.29	<0.01	0.03	0.4	0.75	473	32	1300	11.3	24	17	24.2	119	<3	43.6	<1	0.5	<1	<5	117	<10	17	4	24
D032S	558887	9110368	<1	0.5	0.07	1.15	3.04	<0.01	0.07	0.78	0.82	520	52	1310	11.7	27	25	28.2	125	<3	62.9	<1	0.3	<1	<5	69	<10	12	<2	22
D033S	558648	9110660	<1	<0.5	0.08	1.84	4.18	<0.01	0.14	1.18	0.26	251	52	1010	6.62	22	23	42.7	77.4	<3	81.5	<1	<0.2	<1	<5	78	<10	12	<2	7
D034S	558575	9110504	<1	0.5	0.09	0.77	2.87	<0.01	0.06	0.8	0.76	515	57	1170	11.3	24	22	24.5	124	<3	69.7	<1	<0.2	<1	<5	68	<10	15	<2	23
D035S	560158	9110327	<1	0.5	0.06	0.94	2.18	0.02	0.07	0.84	0.42	241	23	1190	6.29	15	13	22.2	101	<3	57.3	<1	0.3	<1	<5	90	<10	7	<2	11
D036S	560195	9110185	<1	0.5	0.08	0.47	1.88	<0.01	0.1	0.65	0.45	242	19	1220	6.16	13	12	18.4	116	<3	64	<1	0.4	<1	<5	115	<10	9	3	14
D037S	560562	9110108	<1	<0.5	0.09	0.93	2.63	0.01	0.13	0.85	0.23	173	17	1080	5.11	15	12	28.4	82.5	<3	76	<1	0.3	<1	<5	129	<10	7	<2	7
D038S	561075	9110289	<1	0.6	0.06	0.55	2.25	0.01	0.06	0.65	0.53	307	22	949	7.42	15	14	20.5	114	<3	58.2	<1	0.5	<1	<5	95	<10	9	3	16
D039S	561353	9110095	<1	<0.5	0.14	0.54	2.09	0.02	0.14	0.64	0.45	245	14	1400	6.7	13	11	17.5	128	<3	74.5	<1	0.4	<1	<5	125	<10	8	4	14
D040S	562547	9110329	<1	<0.5	0.07	0.52	2.03	0.02	0.09	0.61	0.36	220	16	1580	6.41	13	12	19	161	<3	66.7	<1	0.2	<1	<5	114	<10	8	4	11
D041S	563144	9110191	<1	<0.5	0.06	0.36	2.11	0.01	0.08	0.54	0.41	353	25	1150	7.9	17	14	20.8	119	<3	77.5	<1	<0.2	<1	<5	134	<10	11	3	14
D042S	565793	9108666	<1	0.6	0.04	0.46	2.06	<0.01	0.05	0.43	0.8	680	46	1680	14.7	30	21	23.1	162	<3	69	<1	0.2	<1	<5	124	<10	13	5	26

Table A-8 Results of Analysis of Geochemical Survey Samples (9/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D043S	565841	9108652	<1	<0.5	0.07	0.6	2.45	0.01	0.1	0.88	0.36	358	44	1410	8.21	21	19	23.5	107	7	81.6	<1	<0.2	<1	<5	89	<10	12	2	12
D044S	565824	9108776	<1	<0.5	0.11	0.47	2.39	0.02	0.15	0.94	0.44	353	31	1210	7.85	17	16	19.6	132	<3	102	<1	0.3	<1	<5	93	<10	13	3	13
D045S	565986	9108842	<1	<0.5	0.05	0.46	2.19	0.01	0.12	1.03	0.1	204	20	1290	5.92	17	14	23.3	82.5	5	89.4	<1	<0.2	<1	<5	131	<10	17	6	5
D046S	566349	9109308	<1	<0.5	0.06	0.55	2.29	0.02	0.15	1.07	0.13	230	25	1150	6.4	15	16	23.1	91.4	4	121	<1	0.6	<1	<5	132	<10	16	6	<5
D047S	566426	9109698	1	<0.5	0.05	0.48	2.11	0.02	0.15	0.92	0.08	200	20	1060	6.3	15	13	28.8	90	7	72.1	<1	<0.2	<1	<5	117	<10	18	6	<5
D048S	566074	9109884	<1	<0.5	0.04	0.58	2.1	<0.01	0.11	0.59	0.24	279	33	1480	6.86	18	15	26.7	122	<3	43.3	<1	<0.2	<1	<5	93	<10	12	2	8
D049S	566636	9110318	<1	<0.5	0.05	0.54	2.04	0.02	0.1	1.51	0.03	136	21	1200	4.51	14	18	21.6	65.2	4	94.6	<1	5.1	<1	<5	111	<10	11	7	<5
D050S	568379	9113664	<1	<0.5	0.07	0.77	2.21	0.02	0.05	0.83	0.47	448	46	1490	8.88	21	19	25.3	123	<3	87.9	<1	0.2	<1	<5	88	<10	6	3	14
D051S	568318	9113646	<1	<0.5	0.07	0.74	1.73	0.01	0.05	0.79	0.49	438	43	1260	8.75	19	25	20.8	145	<3	108	<1	<0.2	<1	<5	53	<10	<5	2	15
D052S	566365	9112254	<1	<0.5	0.08	1.04	2.53	0.03	0.08	0.98	0.45	388	36	1310	8.5	20	16	35.2	141	<3	76.9	<1	<0.2	<1	<5	58	<10	10	<2	12
D053S	562289	9109292	<1	<0.5	0.1	0.48	1.62	0.01	0.11	0.58	0.47	287	20	1660	6.64	14	13	18.2	148	<3	69.4	<1	0.2	<1	<5	97	<10	8	4	15
D054S	562637	9108984	<1	<0.5	0.08	0.41	1.86	<0.01	0.05	0.56	0.63	440	29	1620	9.32	19	17	21.4	170	<3	57.6	<1	0.4	<1	<5	85	<10	10	2	20
D055S	562644	9108696	<1	0.6	0.09	0.49	2.42	<0.01	0.07	0.54	0.66	493	35	1890	10.4	23	16	27	168	<3	75.3	<1	0.3	<1	<5	146	<10	11	3	21
D056S	562546	9108528	2	0.5	0.08	0.39	1.95	0.01	0.06	0.43	0.63	467	28	1630	9.7	21	15	23.9	123	<3	59.7	<1	0.4	<1	<5	128	<10	15	3	20
D057S	562364	9108476	<1	0.7	0.08	0.37	2.81	0.02	0.07	0.56	0.44	360	21	1720	9.02	20	13	32.6	100	<3	79.8	<1	0.3	<1	<5	214	<10	20	6	15
D058S	562261	9108100	<1	0.6	0.09	0.43	2.56	0.02	0.07	0.53	0.55	399	23	1570	9.22	19	14	28.5	112	<3	72.4	<1	<0.2	<1	<5	183	<10	17	5	17
D059S	562394	9107566	3	0.5	0.05	0.41	2.59	0.01	0.04	0.54	0.51	473	36	1820	10.3	25	16	27.9	121	<3	64.4	<1	<0.2	<1	<5	139	<10	22	4	18
D060S	562161	9107424	1	0.6	0.04	0.42	2.26	<0.01	0.03	0.4	0.64	518	34	1800	11.5	26	16	27	128	<3	67.7	<1	0.2	<1	<5	140	<10	20	4	20
D061S	561185	9107208	1	0.5	0.05	0.41	2.83	0.01	0.05	0.56	0.44	365	25	1480	8.49	20	13	26.3	98.4	<3	87.8	<1	0.2	<1	<5	165	<10	20	4	14
D062S	561106	9107440	2	<0.5	0.06	0.33	1.46	<0.01	0.04	0.4	0.88	525	31	1430	11.7	23	17	17.1	155	<3	43.1	<1	0.3	<1	<5	62	<10	11	4	28
D063S	564039	9115362	2	<0.5	0.06	1	2.04	0.02	0.05	0.69	0.76	699	43	1510	12.5	28	20	26.5	181	<3	51	<1	<0.2	<1	<5	71	<10	<5	<2	22
D064S	564032	9115640	3	<0.5	0.1	0.98	2.77	0.02	0.06	1.07	0.26	275	21	1110	6.15	19	12	28.2	81	<3	80.5	<1	0.2	<1	<5	113	<10	6	<2	8
D065S	563976	9115662	3	<0.5	0.14	0.6	2.69	0.02	0.05	1.12	0.34	353	25	1270	7.25	21	13	24.4	88.1	<3	89.4	<1	<0.2	<1	<5	115	<10	<5	<2	11
D066S	564285	9115848	4	<0.5	0.08	0.74	2.18	0.02	0.04	0.81	0.42	376	26	1300	7.79	19	14	22.2	122	<3	76	4	7.6	<1	<5	99	<10	<5	<2	13
D067S	564307	9116398	4	<0.5	0.1	1.07	2.98	0.02	0.06	1.05	0.22	235	21	1330	5.84	17	12	29.3	92.4	7	92.7	<1	<0.2	<1	<5	142	<10	6	<2	6
D068S	563729	9117228	5	<0.5	0.17	0.57	2.63	0.01	0.03	1.36	0.63	556	34	1210	9.25	25	16	21	100	<3	101	<1	<0.2	<1	<5	120	<10	<5	<2	19
D069S	563806	9117618	3	<0.5	0.1	0.65	1.9	0.02	0.03	0.88	0.92	745	42	1460	13.5	30	20	19.7	156	<3	65	<1	<0.2	<1	<5	63	<10	<5	<2	28
D070S	563410	9118088	4	<0.5	0.19	0.52	2.91	0.02	0.06	1.97	0.24	292	22	1560	5.31	20	12	23.2	79.7	<3	131	<1	<0.2	<1	<5	222	<10	6	2	7
D071S	564146	9118492	3	<0.5	0.06	0.43	1.16	0.02	0.04	1.04	0.95	643	41	1940	12.4	23	20	15.8	227	<3	48.3	<1	0.3	<1	<5	43	<10	5	3	28
D072S	564111	9118414	2	<0.5	0.15	0.95	3.15	0.03	0.08	1.52	0.14	164	14	1170	4.6	17	11	28.1	74	<3	114	<1	<0.2	<1	<5	168	<10	6	<2	<5
D073S	562227	9119518	2	<0.5	0.16	0.58	2.57	0.02	0.05	1.29	0.32	280	28	1100	5.64	18	20	21.7	74.6	<3	101	<1	0.2	<1	<5	130	<10	5	<2	7
D074S	561782	9119292	4	<0.5	0.15	0.57	2.31	0.01	0.08	1.17	0.72	668	50	1360	12.5	28	21	26.7	145	<3	91.9	<1	<0.2	<1	<5	71	<10	<5	4	23
D075S	561570	9119714	2	<0.5	0.28	0.19	3.09	0.01	0.02	2.55	0.26	246	26	1060	4.78	16	12	13.2	52	<3	187	<1	3.5	<1	<5	151	<10	<5	<2	9
D076S	546585	9102560	7	<0.5	0.04	0.55	1.65	0.01	0.07	0.37	0.54	472	45	1390	10.2	23	20	33.6	151	<3	35	<1	0.3	<1	<5	62	<10	8	7	18
D077S	545505	9102252	2	<0.5	0.02	0.63	1.3	0.02	0.04	0.2	0.43	409	38	1480	8.99	23	18	47.4	179	<3	17.6	1	0.9	<1	<5	42	<10	6	33	14
D078S	545135	9102556	1	<0.5	0.02	0.33	1.07	0.02	0.05	0.17	0.14	163	14	897	4.87	12	10	31.3	78	<3	17.9	<1	<0.2	<1	<5	49	<10	11	10	6
D079S	545292	9102826	3	<0.5	0.04	0.69	1.63	0.01	0.08	0.31	0.53	483	38	1460	10.2	19	16	32.7	171	<3	32.5	<1	1.7	<1	<5	58	<10	8	7	17
D080S	542998	9102176	2	<0.5	0.02	0.66	1.24	0.02	0.05	0.21	0.47	437	27	1080	9.24	20	16	29.6	116	<3	17.7	<1	2.3	<1	<5	33	<10	6	10	15
D081S	543066	9102218	2	<0.5	0.03	0.67	1.4	0.02	0.08	0.3	0.49	452	46	1140	11.2	23	15	34.7	119	<3	25.7	<1	<0.2	<1	<5	36	<10	8	9	13
D082S	543156	9102034	3	<0.5	0.03	0.87	1.71	0.02	0.07	0.3	0.35	365	37	1430	10	22	13	54.1	132	<3	28.2	<1	<0.2	<1	<5	44	<10	6	6	9
D083S	513733	9099372	3	0.5	0.02	0.33	1.58	<0.01	0.1	0.33	0.47	366	37	1090	9.76	20	12	23.1	132	4	30	<1	<0.2	<1	<5	71	<10	14	10	13
D084S	513697	9098960	3	<0.5	0.04	0.5	1.77	0.01	0.14	0.41	0.17	207	37	1270	5.85	15	8	26.1	98.2	9	40.2	<1	<0.2	<1	<5	92	<10	14	7	5
D085S	511431	9097630	2	<0.5	0.05	0.59	1.86	0.02	0.11	0.63	0.16	171	26	1390	5.7	12	6	23.7	141	8	45.1	<1	<0.2	<1	<5	101	<10	12	11	<5
D086S	511611	9097546	2	<0.5	0.04	0.43	1.83	0.02	0.15	0.53	0.1	182	29	1170	5.6	16	8	30.3	83.8	23	55.3	<1	0.2	<1	<5	101	<10	32	7	<5
D087S	510055	9097868	4	<0.5	0.03	0.39	2.35	0.01	0.08	0.47	0.16	217	27	1040	6.56	16	8	27.6	84.4	6	67.3	<1	<0.2	<1	<5	127	<10	16	7	5
D088S	509891	9097870	2	0.6	0.05	0.53	1.67	0.04	0.05	0.83	0.78	812	95	1760	17.3	32	23	36.1	240	7	75.5	<1	0.2	<1	<5	76	<10	34	7	22
D089S	510338	9097428	6	<0.5	0.02	0.47	1.16	0.05	0.06	0.78	0.61	626	57	1860	17.8	28	19	38.8	283	13	38	<1	0.2	<1	<5	96	<10	54	8	18
D090S	503731	9098986	2	<0.5	0.04	0.47	2.04	0.01	0.02	0.79	0.41	513	58	1060	10.8	27	19	32.2	128	4	107	<1	0.2	<1	<5	95	<10	17	7	12
D091S	503543	9093938	3	0.6	0.05	0.37	1.58	0.02	0.02	2.41	0.94	666	78	1560	18.2	32	17	21.6	177	<3	95.9	2	0.2	<1	<5	54	<10	24	7	25
D092S	504437	9096586	7	0.5	0.06	0.27	2.19	0.02	0.03	1.64	0.49	389	42	1470	12.2	24	10	23.2	124	7	121	<1	0.4	<1	<5	124	<10	18	11	14
D093S	508666	9094128	4	<0.5	0.05	0.31	0.99	0.06	0.03	11	0.21	275	39	887	8.95	17	15	33.7	153	63	266	2	0.3	<1	<5	73	<10	584	7	7
D094S	546805	9087358	2	0.6	0.13	0.27	2.02	<0.01	0.03	1.82	0.73	512	48	1420	12.2	27	17	26.7	128	8	108	<1	0.3	<1	<5	55	<10	24	5	19
D095S	546438	9087232	2	0.6	0.13	0.28	1.89	<0.01	0.02	3.27	0.77	537	50	1530	13.1	30	18	28.2	114	10	107	<1	<0.2	<1	<5	51	<10	83	5	20
D096S	546245	9086966	3	0.7	0.1	0.4	1.96	<0.01	0.02	0.69	1.16	804	67	2220	20.5	48	26	40.5	156	11	62.3	<1	0.3	<1	<5	63	<10	46	5	30
D097S	546298	9086992	2	<0.5	0.01	0.44	0.86	<0.01	<0.01	0.1	0.9	711	63	1630	21.9	44	26	35.2	183	<3	8.5	<1	<0.2	<1	<5	10	<10	6	5	26

Table A-8 Results of Analysis of Geochemical Survey Samples (10/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D098S	544390	9085998	6	0.8	0.16	0.49	2.92	<0.01	0.03	1.24	1.28	910	93	2550	23.1	54	29	50.1	175	11	97.6	<1	0.4	<1	<5	94	<10	54	3	32
D099S	542615	9088278	6	<0.5	0.03	0.6	1.79	<0.01	0.07	0.46	0.25	314	27	1230	8.21	20	7	31.5	110	15	57.3	<1	<0.2	<1	<5	55	<10	29	7	7
D100S	542216	9087544	2	<0.5	0.03	0.37	0.95	<0.01	0.01	0.35	0.84	637	49	1760	18.7	38	22	31.9	172	<3	24.9	<1	0.3	<1	<5	14	<10	11	5	24
D101S	543225	9089910	3	0.8	0.03	0.55	1.77	<0.01	0.06	0.78	0.99	694	62	1910	15.8	32	15	30.1	204	<3	145	<1	<0.2	<1	<5	55	<10	12	6	24
D102S	543368	9090056	<1	0.6	0.05	0.71	2.26	<0.01	0.08	0.87	0.69	524	41	1710	14.3	28	13	42.4	212	6	1040	<1	<0.2	<1	<5	570	<10	19	5	18
D103S	543332	9090248	<1	<0.5	0.05	0.64	2.15	0.02	0.08	0.7	0.27	297	57	1380	8.16	19	10	30.3	113	6	59	<1	<0.2	<1	<5	72	<10	16	9	8
D104S	543612	9091006	<1	<0.5	0.06	0.72	1.85	0.02	0.09	0.44	0.31	295	47	1240	7.93	17	9	25.6	132	<3	46.4	<1	<0.2	<1	<5	54	<10	8	5	8
D105S	543494	9091264	<1	<0.5	0.04	0.44	1.69	0.02	0.07	0.43	0.15	197	31	1220	6.05	13	6	18.8	90.4	6	48.1	<1	<0.2	<1	<5	54	<10	13	5	5
D106S	542848	9091892	<1	<0.5	0.03	0.28	1.04	0.01	0.1	0.26	0.46	332	36	1210	9.26	18	11	21.1	107	<3	33	<1	<0.2	<1	<5	49	<10	12	7	13
D107S	542554	9091830	<1	<0.5	0.03	0.35	1.19	0.01	0.09	0.31	0.28	240	36	1100	7.51	15	8	24.5	99	5	40.2	1	<0.2	<1	<5	43	<10	10	5	8
D108S	545050	9092231	<1	<0.5	0.04	0.48	1.34	<0.01	0.04	0.43	0.55	737	85	1330	15.6	26	18	27.2	130	3	30.6	<1	0.3	<1	<5	32	<10	9	6	17
D109S	545058	9092251	<1	<0.5	0.04	0.66	1.93	0.02	0.06	0.59	0.34	465	95	1360	10.7	22	13	34.4	134	3	46.5	<1	<0.2	<1	<5	52	<10	24	14	10
D110S	544899	9091975	<1	0.6	0.04	0.78	2.13	0.01	0.05	0.47	0.58	440	46	1670	9.85	19	9	29.5	182	<3	118	<1	<0.2	<1	<5	64	<10	16	3	14
D111S	544823	9091610	<1	0.6	0.05	0.56	2.55	0.02	0.06	0.6	0.41	364	63	1380	8.99	22	11	38.5	111	7	102	<1	<0.2	<1	<5	127	<10	24	8	11
D112S	544633	9091973	<1	<0.5	0.04	0.67	1.72	0.01	0.05	0.5	0.47	774	92	1440	15.7	28	17	35.8	133	3	35.5	<1	<0.2	<1	<5	43	<10	9	15	15
D113S	544273	9090795	<1	<0.5	0.06	0.31	1.82	0.01	0.07	4.43	0.46	367	49	1190	10	21	12	30.7	111	19	92.5	2	<0.2	<1	<5	73	<10	29	14	13
D114S	543277	9090114	<1	0.6	0.05	0.57	1.54	<0.01	0.08	0.43	0.65	473	55	1490	12.7	22	14	28.8	226	<3	57.4	<1	0.2	<1	<5	40	<10	9	4	16
D115S	539724	9101280	<1	<0.5	0.04	0.99	1.95	0.02	0.06	0.31	0.54	516	50	1600	12.9	27	13	53	151	<3	30.5	<1	0.4	<1	<5	53	<10	14	5	14
D116S	539734	9101400	<1	<0.5	0.02	0.38	1.45	<0.01	0.1	0.19	0.22	251	58	925	8.55	12	7	15.6	63.6	<3	19.6	<1	<0.2	<1	<5	57	<10	7	6	7
D117S	539297	9102370	<1	<0.5	0.05	0.43	1.63	0.01	0.06	0.29	0.36	300	43	1180	8.01	18	9	33	107	<3	34.3	<1	<0.2	<1	<5	53	<10	14	10	10
D118S	539195	9102352	<1	<0.5	0.04	0.33	1.23	0.01	0.05	0.29	0.19	198	52	1300	6.46	13	7	27.4	104	<3	28.5	<1	<0.2	<1	<5	58	<10	9	33	6
D119S	539142	9102254	<1	<0.5	0.01	0.29	1.39	<0.01	0.12	0.17	0.07	143	40	740	6.31	7	3	9.2	36.1	<3	18.2	<1	<0.2	<1	<5	63	<10	8	4	<5
D120S	539269	9102158	<1	<0.5	0.03	0.36	1.17	<0.01	0.05	0.19	0.26	285	65	850	8.93	13	8	16.3	66.3	<3	21	<1	<0.2	<1	<5	46	<10	9	6	8
D121S	541067	9101002	<1	<0.5	0.02	0.65	1.35	0.02	0.07	0.23	0.14	216	28	972	7.15	13	7	37.1	76.9	<3	20.8	<1	<0.2	<1	<5	56	<10	8	15	<5
D122S	541198	9101126	10	<0.5	0.04	1.07	2.16	0.04	0.11	0.32	0.09	180	23	1250	6.31	18	7	39.6	99	<3	24.6	1	<0.2	<1	<5	71	<10	10	10	<5
D123S	499193	9088466	<1	0.5	0.02	0.39	0.92	<0.01	<0.01	0.42	1.1	738	56	2300	22	42	22	36.2	202	<3	28.5	<1	0.4	<1	<5	21	<10	<5	5	30
D124S	500309	9092436	<1	1	0.11	0.36	3.21	0.03	0.03	3.37	0.94	629	59	2390	16.8	36	19	44.9	143	12	90.4	<1	0.3	<1	<5	186	<10	20	8	23
D125S	495165	9092832	<1	<0.5	0.05	0.52	2.81	0.02	0.03	2.84	0.14	237	33	869	6.93	18	11	34	74.6	6	163	<1	<0.2	<1	<5	120	<10	19	5	<5
D126S	490606	9092808	<1	0.6	0.14	0.62	3.51	0.02	0.04	2.61	0.65	462	69	2110	14	29	13	21.3	131	4	89.3	<1	0.3	<1	<5	116	<10	13	<2	17
D127S	492535	9092568	<1	<0.5	0.04	0.56	2.11	0.03	0.03	3.22	0.29	222	51	1390	7.87	16	6	11.2	77.1	3	48.4	<1	0.3	<1	<5	88	<10	10	3	8
D128S	504865	9095072	3	0.5	0.04	0.3	2.67	0.01	0.04	2.65	0.15	184	34	1170	7.06	16	8	28.3	64.7	28	114	1	<0.2	<1	<5	125	<10	24	9	5
D129S	505993	9094182	3	0.7	0.09	0.33	4.08	0.01	0.03	10.3	0.22	285	62	1650	8.06	23	12	40.9	57.4	60	169	2	0.2	<1	<5	191	<10	25	7	5
D130S	499085	9118988	<1	0.7	0.04	0.42	3.08	0.01	0.05	0.67	0.47	491	98	1440	10.5	34	29	34.7	117	<3	58.5	<1	0.3	<1	<5	163	<10	12	6	12
D131S	499104	9118930	<1	0.6	0.04	1.08	4.04	0.02	0.11	0.98	0.27	350	67	1070	8.11	26	20	41.4	102	<3	77	<1	<0.2	<1	<5	100	<10	14	5	6
D132S	500339	9117290	<1	0.6	0.05	0.8	4.81	0.02	0.12	1.22	0.28	354	83	1280	8.16	29	14	42.1	74.8	<3	103	<1	0.2	<1	<5	136	<10	9	<2	6
D133S	501684	9117534	<1	0.6	0.02	1.2	5.43	0.02	0.22	0.64	0.27	402	71	1530	10.4	35	24	49.8	94.8	<3	62.3	<1	<0.2	<1	<5	157	<10	7	<2	7
D134S	501395	9117048	<1	0.9	0.03	0.47	2.39	0.01	0.05	0.59	0.87	748	108	1690	14.4	35	16	42.9	158	<3	59.5	<1	<0.2	<1	<5	114	<10	11	4	22
D135S	501729	9117252	7	0.6	0.05	1.31	5.24	0.02	0.14	1.05	0.17	273	37	1050	7.43	23	13	51.4	83.5	<3	102	<1	<0.2	<1	<5	120	<10	11	<2	<5
D136S	501769	9117344	<1	0.6	0.05	1.32	4.39	0.02	0.1	1.01	0.48	579	64	1180	11.6	31	17	48.5	122	<3	87.8	<1	<0.2	<1	<5	108	<10	7	<2	11
D137S	500228	9112086	14	0.5	0.03	0.49	2.05	0.02	0.1	0.33	0.18	275	42	1240	7.52	17	8	23.3	91.9	<3	32.9	<1	<0.2	<1	<5	82	<10	10	14	5
D138S	500293	9111854	1	<0.5	0.02	0.26	1.56	0.01	0.11	0.27	0.22	206	35	912	5.9	11	6	13.2	94.9	<3	33	<1	<0.2	<1	<5	83	<10	10	14	6
D139S	503019	9110782	14	<0.5	0.02	0.25	1.49	0.01	0.13	0.28	0.19	222	40	1000	6.4	12	6	15.5	104	<3	30.3	<1	<0.2	<1	<5	86	<10	10	16	5
D140S	502994	9110734	<1	<0.5	0.03	0.25	1.77	<0.01	0.08	0.35	0.35	220	36	943	6.08	11	6	9.5	88.8	<3	42.2	<1	<0.2	<1	<5	86	<10	9	7	9
D141S	500908	9111422	2	0.5	0.01	0.21	0.94	<0.01	0.04	0.16	0.8	437	51	1870	15.1	18	11	8.6	234	<3	17.1	<1	0.3	<1	<5	35	<10	<5	9	22
D142S	499903	9121678	<1	0.6	0.05	0.55	1.86	0.02	0.04	0.54	0.72	723	111	1580	15.4	38	29	23.3	186	<3	41.1	<1	<0.2	<1	<5	114	<10	5	6	19
D143S	499970	9121656	4	<0.5	0.05	0.67	2.12	0.03	0.12	0.57	0.32	482	91	1380	10.5	24	25	35.5	166	12	42.9	<1	0.2	<1	<5	108	<10	24	26	9
D144S	502182	9121324	3	0.6	0.11	1.25	4.28	0.02	0.16	1.1	0.41	441	53	1180	9.57	26	16	37	118	<3	79.6	<1	<0.2	<1	<5	75	<10	7	<2	9
D145S	502416	9121232	<1	0.7	0.06	0.77	3.58	0.02	0.1	0.71	0.54	487	51	1500	11.1	29	16	30.9	144	<3	59.8	<1	<0.2	<1	<5	119	<10	10	3	13
D146S	503229	9121266	1	0.5	0.04	0.51	2.28	0.01	0.07	0.47	0.43	492	58	1450	11.4	30	17	23.1	155	<3	40.9	<1	<0.2	<1	<5	133	<10	7	6	11
D147S	503764	9119612	1	<0.5	0.15	1.26	4.74	0.03	0.13	1.45	0.23	307	47	1300	7.3	27	18	51.3	95.4	<3	83.6	<1	<0.2	<1	<5	101	<10	26	<2	5
D148S	504087	9120336	4	0.5	0.06	0.98	3.97	0.02	0.11	0.85	0.25	288	42	1200	7.34	24	17	38.2	95.3	<3	62.8	<1	<0.2	<1	<5	110	<10	21	<2	6
D149S	504463	9119738	<1	0.5	0.06	1.39	4.85	0.02	0.13	0.98	0.32	422	57	1380	8.89	30	15	44.2	108	<3	75.2	<1	<0.2	<1	<5	94	<10	9	<2	6
D150S	504392	9121602	2	0.6	0.02	0.54	1.38	0.01	0.05	0.29	0.73	792	67	1670	16.5	34	19	49.4	249	<3	22	<1	0.3	<1	<5	43	<10	7	31	21
D151S	504398	9122404	<1	1	0.03	0.38	2.83	0.02	0.05	0.38	0.76	499	40	1480	11.1	31	11	29.1	120	<3	37.7	<1	0.2	<1	<5	164	<10	18	6	19
D152S	503953	9122890	1	0.9	0.06	0.73	3.96	0.01	0.06	0.74	0.62	451	46	1190	9.47	27	12	29.3	103	<3	55.7	<1	0.2	<1	<5	119	<10	12	<2	14

Table A-8 Results of Analysis of Geochemical Survey Samples (11/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D153S	502847	9122000	<1	0.5	0.1	0.46	3.35	0.01	0.04	0.85	0.16	253	44	1670	5.8	18	7	33.2	44.7	<3	81.7	<1	<0.2	<1	<5	330	<10	<5	3	<5
D154S	501152	9122688	1	0.6	0.08	0.78	4.04	0.02	0.04	0.95	0.24	275	37	1720	7.09	28	11	34.3	69.7	<3	76.2	<1	0.2	<1	<5	180	<10	9	<2	6
D155S	502140	9123776	2	0.6	0.05	1.04	4.61	0.02	0.07	0.86	0.28	237	28	974	6.67	21	9	34.2	77.7	<3	61.3	<1	<0.2	<1	<5	109	<10	10	<2	6
D156S	502341	9123854	<1	0.9	0.05	0.77	3.96	0.01	0.06	0.62	0.57	405	38	1010	9.13	26	12	30	110	<3	48.5	<1	0.2	<1	<5	129	<10	15	<2	14
D157S	502310	9123884	<1	1	0.04	0.8	3.09	<0.01	0.05	0.5	1.04	715	73	1390	14.5	39	18	25.8	165	<3	41.4	<1	<0.2	<1	<5	98	<10	10	<2	26
D158S	499560	9122990	2	0.8	0.05	0.63	3.66	0.01	0.04	0.6	0.76	669	82	1550	12.5	34	16	30.6	126	<3	53.3	<1	<0.2	<1	<5	122	<10	12	<2	18
D159S	498699	9125980	4	0.8	0.04	0.45	4	0.02	0.05	0.51	0.51	470	49	1520	10.6	31	11	32.9	104	<3	48.2	<1	0.2	<1	<5	245	<10	15	6	13
D160S	498799	9125980	1	1	0.04	0.85	3.22	0.01	0.05	0.54	1.07	785	80	1420	14.4	39	16	24.6	175	<3	45.2	<1	<0.2	<1	<5	108	<10	8	2	27
D161S	498769	9125072	4	0.7	0.06	0.64	4.44	0.02	0.04	0.73	0.56	531	62	1210	10.5	30	13	30.6	104	<3	54	<1	<0.2	<1	<5	127	<10	12	<2	15
D162S	499139	9123680	8	0.7	0.06	0.63	3	0.01	0.05	0.69	0.76	612	63	1420	12.9	32	13	27	145	<3	55.8	<1	<0.2	<1	<5	109	<10	8	2	19
D163S	497531	9122090	2	0.5	0.08	0.45	2.67	0.03	0.05	6.35	0.49	489	56	1510	10.3	29	16	28.5	112	<3	99.7	<1	0.3	<1	<5	129	<10	11	5	12
D164S	498073	9122990	2	0.5	0.03	0.34	3.13	<0.01	0.05	0.54	0.14	243	31	1190	6.19	20	6	33.2	54.8	3	56.8	<1	<0.2	<1	<5	246	<10	9	7	<5
D165S	495564	9123876	1	0.7	0.04	0.32	1.5	0.01	0.06	0.77	0.89	604	82	1200	12.4	27	13	13.6	167	<3	44.6	<1	<0.2	<1	<5	70	<10	10	7	23
D166S	494702	9125040	2	0.6	0.06	0.36	2.21	0.01	0.06	0.61	0.69	511	84	993	10.2	24	12	16	126	<3	51.1	<1	<0.2	<1	<5	95	<10	7	5	18
E001S	549159	9106344	4	0.5	0.06	0.34	1.96	0.01	0.09	0.51	0.21	229	22	1150	5.58	15	6	21.5	85.2	<3	67.1	<1	<0.2	<1	<5	109	<10	14	7	<1
E002S	548990	9106032	5	<0.5	0.03	0.25	1.14	0.02	0.06	0.28	0.07	125	12	1260	4.4	12	4	26.3	96.9	<3	37.7	<1	<0.2	<1	<5	85	<10	10	<5	<1
E003S	549104	9107168	5	<0.5	0.03	1.67	2.68	0.02	0.09	0.55	0.05	160	59	1130	5.07	24	48	36	64.3	<3	54.1	<1	<0.2	<1	<5	103	<10	13	<5	<1
E004S	549139	9107516	10	0.5	0.03	0.7	2.53	0.02	0.1	0.5	0.08	156	19	1260	5.04	20	7	30	64.1	<3	55.1	<1	<0.2	<1	<5	132	<10	10	<5	<1
E005S	549464	9107408	6	0.5	0.02	0.21	1.19	0.02	0.07	0.24	0.35	356	25	1340	8.31	17	9	19.6	125	4	23.9	<1	<0.2	<1	<5	86	<10	8	11	<1
E006S	554751	9108338	7	0.6	0.04	0.26	1.62	0.01	0.07	0.29	0.43	415	28	1020	8.94	19	10	29.6	120	<3	33.3	<1	<0.2	<1	<5	100	<10	13	13	<1
E007S	554757	9108218	4	0.6	0.02	0.19	2.35	0.02	0.05	0.31	0.23	246	14	1330	6.52	18	5	29.2	57.5	<3	54	<1	0.2	<1	<5	217	<10	26	8	<1
E008S	553149	9106360	10	<0.5	0.03	0.17	1.27	<0.01	0.07	0.27	0.25	264	17	1070	6.54	17	7	19.9	68.7	<3	31.7	<1	<0.2	<1	<5	79	<10	16	8	<1
E009S	553096	9106378	11	0.6	0.02	0.23	1.36	<0.01	0.03	0.21	0.44	382	22	1120	8.39	19	8	17.8	98.2	<3	31.5	<1	<0.2	<1	<5	101	<10	15	14	<1
E010S	552943	9106626	7	<0.5	0.04	0.17	1.29	<0.01	0.05	0.31	0.28	279	20	982	5.88	15	7	18.3	64.2	<3	36.4	<1	<0.2	<1	<5	69	<10	13	9	<1
E011S	551926	9106438	9	<0.5	0.05	0.25	1.81	<0.01	0.09	0.4	0.28	285	22	1110	6.49	16	7	21.4	74.5	<3	50.2	<1	<0.2	<1	<5	99	<10	15	9	<1
E012S	551900	9106540	4	<0.5	0.05	0.2	1.22	<0.01	0.1	0.41	0.14	152	11	889	3.95	10	5	13.3	55.6	<3	48.1	<1	<0.2	<1	<5	79	<10	11	<5	<1
E013S	551828	9106554	3	0.6	0.04	0.29	1.43	<0.01	0.08	0.49	0.36	259	23	1400	6.23	13	8	13.9	138	<3	59.9	<1	<0.2	<1	<5	75	<10	9	10	<1
E014S	551714	9105862	2	0.6	0.02	0.24	2.08	0.02	0.07	0.39	0.16	201	14	1150	6.07	15	5	25	97.9	6	54	<1	<0.2	<1	<5	165	<10	25	6	<1
E015S	550812	9106344	4	0.5	0.06	0.42	1.72	<0.01	0.12	0.61	0.15	135	11	1230	4.03	10	4	15	103	<3	105	<1	<0.2	<1	<5	83	<10	9	<5	<1
E016S	551661	9104406	10	<0.5	0.03	0.25	1.2	<0.01	0.04	0.24	0.41	425	27	1180	8.83	19	10	21.8	113	<3	32.3	<1	<0.2	<1	<5	79	<10	10	12	<1
E017S	554759	9106000	<1	0.6	0.02	0.28	1.55	0.01	0.04	0.24	0.36	384	29	1280	8.3	20	8	26.2	136	<3	30.5	<1	<0.2	<1	<5	100	<10	19	11	<1
E018S	554770	9106034	1	0.6	0.02	0.24	1.63	<0.01	0.03	0.19	0.49	453	23	1340	9.49	21	9	21.6	98.3	<3	36.4	<1	0.3	<1	<5	146	<10	19	14	<1
E019S	554736	9106442	4	0.6	0.02	0.25	1.23	<0.01	0.03	0.22	0.61	524	34	1250	10.5	23	12	18.4	151	<3	27.3	<1	<0.2	<1	<5	61	<10	9	17	<1
E020S	554707	9106466	15	0.6	0.02	0.22	1.2	<0.01	0.03	0.17	0.6	487	27	1200	10.1	22	10	16.3	110	<3	25.8	<1	<0.2	<1	<5	86	<10	10	18	<1
E021S	555563	9106786	8	0.6	0.03	0.19	1.59	<0.01	0.05	0.27	0.44	355	20	1330	8.24	18	8	17.8	90.9	<3	42	<1	<0.2	<1	<5	108	<10	17	13	<1
E022S	555720	9106728	<1	0.6	0.04	0.37	1.51	<0.01	0.05	0.38	0.32	276	19	1210	6.56	14	7	17.1	124	<3	41.6	<1	<0.2	<1	<5	72	<10	9	9	<1
E023S	555716	9106790	15	0.6	0.04	0.23	1.02	<0.01	0.03	0.29	0.63	451	32	1180	9.57	20	13	14	201	<3	33.3	<1	<0.2	<1	<5	37	<10	7	18	<1
E024S	555749	9108942	<1	0.8	0.03	0.22	3.02	0.03	0.08	0.29	0.4	345	18	1640	8.19	21	8	32.1	80.8	<3	63.2	<1	0.3	<1	<5	264	<10	32	13	<1
E025S	555843	9108522	<1	0.7	0.04	0.26	1.73	<0.01	0.04	0.32	0.49	391	23	1200	8.69	18	9	16.3	120	<3	39.3	<1	<0.2	<1	<5	94	<10	13	14	<1
E026S	555905	9108824	<1	0.7	0.04	0.23	1.39	<0.01	0.01	0.26	0.66	502	29	1370	11.4	22	11	15.7	124	<3	34.2	<1	<0.2	<1	<5	86	<10	12	19	<1
E027S	556099	9109574	<1	0.7	0.04	0.17	1.9	0.01	0.02	0.31	0.43	323	16	1280	7.89	16	7	19.1	92	<3	44.5	<1	0.2	<1	<5	138	<10	24	12	<1
E028S	556067	9109586	3	0.8	0.02	0.33	1.49	<0.01	0.02	0.13	0.97	791	41	1630	16.7	34	16	19.4	158	<3	22.4	<1	0.3	<1	<5	80	<10	13	27	<1
E029S	552481	9103434	1	<0.5	0.04	0.2	1.53	<0.01	0.05	0.31	0.3	316	21	1370	7.26	21	9	22.4	91.2	<3	43.4	<1	<0.2	<1	<5	84	<10	21	10	<1
E030S	557349	9107500	<1	0.8	0.01	0.17	2.25	0.01	0.05	0.22	0.45	255	10	1070	6.67	14	5	18.6	85.7	<3	55.1	<1	<0.2	<1	<5	175	<10	26	14	<1
E031S	557124	9107664	<1	0.7	0.04	0.24	2.22	<0.01	0.03	0.34	0.51	345	17	1300	8.36	17	7	18.9	91.8	<3	56.3	<1	<0.2	<1	<5	130	<10	27	15	<1
E032S	557198	9106008	<1	0.7	0.04	0.21	2.2	<0.01	0.04	0.35	0.53	440	23	1520	9.48	22	10	23.7	108	<3	54.2	<1	0.3	<1	<5	139	<10	22	16	<1
E033S	557360	9105942	4	0.7	0.02	0.22	2.16	<0.01	0.03	0.23	0.58	481	21	1360	10.3	23	10	22.2	102	<3	53.3	<1	<0.2	<1	<5	174	<10	22	17	<1
E034S	557235	9105158	1	0.6	0.04	0.26	1.77	0.02	0.07	0.49	0.29	255	18	1100	6.14	15	6	18.8	97.7	<3	48.3	<1	<0.2	<1	<5	114	<10	18	9	<1
E035S	557155	9105172	2	0.7	0.03	0.22	2.27	<0.01	0.05	0.33	0.44	375	18	1340	8.5	20	8	22.8	99.3	<3	62	<1	<0.2	<1	<5	183	<10	26	13	<1
E036S	556987	9104922	<1	0.5	0.03	0.2	1.44	<0.01	0.04	0.26	0.39	334	18	1070	7.19	18	8	18.9	90.9	<3	42.9	<1	<0.2	<1	<5	100	<10	20	12	<1
E037S	555439	9104728	<1	0.6	0.03	0.34	1.38	<0.01	0.03	0.25	0.62	613	38	1290	12	27	15	21.2	141	<3	28.3	<1	<0.2	<1	<5	64	<10	9	19	<1
E038S	555433	9104498	<1	<0.5	0.02	0.42	1.19	<0.01	0.03	0.23	0.53	696	51	1310	11.9	24	16	23.2	145	<3	24.3	<1	<0.2	<1	<5	46	<10	8	17	<1
E039S	555446	9104534	3	0.6	0.04	0.26	1.51	<0.01	0.04	0.28	0.6	520	27	1320	11.1	23	11	17.9	123	<3	42.6	<1	0.2	<1	<5	85	<10	16	19	<1
E040S	554988	9104504	2	0.5	0.02	0.35	1.16	<0.01	0.02	0.21	0.55	869	43	1510	12.3	24	18	25.7	196	<3	23.7	<1	<0.2	<1	<5	53	<10	8	17	<1
E041S	553238	9104722	<1	<0.5	0.03	0.16	1.29	<0.01	0.04	0.23	0.28	314	19	1160	6.72	18	8	21.6	91.8	<3	27.8	<1	<0.2	<1	<5	79	<10	14	9	<1

Table A-8 Results of Analysis of Geochemical Survey Samples (12/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
E042S	533258	9104742	<1	0.6	0.03	0.28	1.09	<0.01	0.03	0.21	0.66	669	35	1260	12.8	25	14	17.6	155	<3	25.8	<1	0.2	<1	<5	47	<10	8	20	<1
E043S	547216	9104384	<1	<0.5	0.01	0.53	1.34	<0.01	0.06	0.22	0.21	243	28	1140	5.76	15	13	26.3	122	<3	29.5	<1	<0.2	<1	<5	64	<10	7	7	<1
E044S	547421	9104686	<1	<0.5	0.03	0.26	1.59	<0.01	0.07	0.31	0.12	161	16	1070	3.88	13	7	19.5	59.2	<3	38.8	<1	<0.2	<1	<5	94	<10	17	<5	<1
E045S	547597	9104698	<1	<0.5	0.02	0.47	1.35	0.02	0.06	0.2	0.09	172	28	1290	4.35	16	11	45.4	108	<3	24	<1	<0.2	<1	<5	73	<10	10	<5	<1
E046S	547902	9104947	<1	<0.5	0.03	0.19	1.17	0.01	0.07	0.21	0.15	178	20	1120	4.31	13	5	24.1	78.9	<3	24.8	<1	<0.2	<1	<5	71	<10	10	5	<1
E047S	548085	9105354	<1	<0.5	0.02	1.51	2.47	0.02	0.04	0.27	0.11	274	97	1430	6.81	35	51	57	155	<3	25	<1	<0.2	<1	<5	93	<10	9	<5	<1
E048S	558350	9080952	5	<0.5	0.05	0.21	1.17	0.02	0.04	0.38	0.12	206	22	649	4.28	13	5	30	48.5	5	37.5	<1	<0.2	<1	<5	39	<10	12	<5	<1
E049S	558145	9080952	4	<0.5	0.02	0.43	1.02	0.02	0.04	0.27	0.09	147	16	593	4.16	11	6	45.9	56	7	22	<1	<0.2	<1	<5	26	<10	6	<5	<1
E050S	557883	9080866	<1	<0.5	0.02	0.31	1.41	0.01	0.05	0.25	0.14	224	21	1020	5.3	18	8	42.8	56.6	7	25.2	<1	<0.2	<1	<5	53	<10	13	5	<1
E051S	557910	9080672	<1	<0.5	0.03	0.3	1.27	0.01	0.07	0.31	0.18	272	34	941	6.18	18	9	48.1	65	5	31.3	1	<0.2	<1	<5	46	<10	12	7	<1
E052S	558184	9080286	11	<0.5	0.02	0.26	0.96	0.01	0.05	0.23	0.3	422	41	770	8.38	18	11	38.7	70.2	4	23.9	<1	<0.2	<1	<5	34	<10	7	11	<1
E053S	559613	9082032	<1	<0.5	0.03	0.29	1.39	0.01	0.05	0.28	0.2	403	32	964	7.63	24	9	46.9	57.6	5	27.7	<1	<0.2	<1	<5	46	<10	10	7	<1
E054S	560151	9082932	<1	<0.5	0.03	0.48	1.53	0.01	0.07	0.39	0.23	430	43	943	8.12	16	11	45.7	80.6	4	33.5	<1	<0.2	<1	<5	44	<10	12	8	<1
E055S	560551	9082816	<1	<0.5	0.02	0.5	1.71	0.02	0.05	0.39	0.15	367	36	875	7.9	18	10	45.5	59.8	4	35.5	<1	<0.2	<1	<5	40	<10	8	6	<1
E056S	560822	9082290	<1	<0.5	0.04	0.24	1.06	0.01	0.02	0.26	0.19	255	25	614	5.12	14	7	24.9	50.5	4	24.1	<1	<0.2	<1	<5	44	<10	14	6	<1
E057S	562131	9082874	<1	<0.5	0.02	0.47	1.43	0.02	0.06	0.34	0.21	449	34	747	8.99	17	10	38.5	62.6	9	26.9	<1	<0.2	<1	<5	36	<10	8	9	<1
E058S	562110	9083096	<1	<0.5	0.03	0.37	1.32	0.01	0.04	0.33	0.27	448	46	972	8.03	21	10	36.8	72	8	26.7	<1	0.3	<1	<5	48	<10	8	9	<1
E059S	558893	9090010	<1	0.5	0.02	0.34	1.9	0.01	0.04	0.91	0.27	361	31	1310	7.74	19	10	27.7	98.8	33	84.3	1	<0.2	<1	<5	129	<10	47	9	<1
E060S	558932	9090794	<1	<0.5	0.02	0.21	1.6	0.01	0.05	1.59	0.13	235	19	818	6.22	14	8	22.3	78	37	77.4	2	<0.2	<1	<5	78	<10	21	5	<1
E061S	559194	9091410	<1	0.8	0.01	0.3	1.19	0.01	0.03	0.41	0.7	705	41	1750	13.8	24	15	23.1	164	11	47.2	<1	<0.2	<1	<5	78	<10	26	21	<1
E062S	559169	9091434	<1	0.5	0.02	0.43	2.02	<0.01	0.04	0.45	0.31	387	31	1360	7.96	22	9	30	103	40	64.3	<1	<0.2	<1	<5	143	<10	71	10	<1
E063S	562500	9090850	<1	0.5	0.03	0.4	2	0.01	0.05	0.59	0.19	340	26	1460	7.54	17	9	26.8	120	3	85.4	<1	<0.2	<1	<5	85	<10	21	7	<1
E064S	562774	9090782	<1	<0.5	0.03	0.44	2.13	0.01	0.06	0.71	0.1	272	21	1350	6.36	17	9	26	97.6	4	101	<1	<0.2	<1	<5	90	<10	23	<5	<1
E065S	562643	9091024	<1	0.7	0.02	0.44	2.15	0.01	0.03	0.6	0.34	512	27	1750	9.83	22	11	37.2	135	<3	89.9	<1	<0.2	<1	<5	98	<10	19	12	<1
E066S	559027	9094044	6	<0.5	0.04	0.68	1.99	0.02	0.09	0.45	0.2	391	40	970	7.61	18	11	53	79.2	9	38.5	<1	<0.2	<1	<5	43	<10	11	7	<1
E067S	559041	9083972	<1	<0.5	0.04	0.68	2.01	0.02	0.08	0.45	0.11	252	24	898	5.74	15	8	51.4	64.1	8	38.1	<1	<0.2	<1	<5	46	<10	11	<5	<1
E068S	559216	9083660	<1	<0.5	0.03	0.32	1.45	0.01	0.07	0.3	0.1	242	40	849	5.27	17	7	41.7	51.4	4	27	<1	<0.2	<1	<5	56	<10	10	<5	<1
E069S	559257	9083528	<1	<0.5	0.03	0.56	1.68	0.02	0.08	0.37	0.1	216	25	882	5.17	16	8	51.5	58.9	9	30.6	<1	<0.2	<1	<5	47	<10	12	<5	<1
E070S	559391	9083166	4	<0.5	0.02	0.38	1.23	0.01	0.06	0.28	0.19	257	34	789	5.8	18	8	49.2	58	8	23.3	<1	<0.2	<1	<5	41	<10	7	7	<1
E071S	559391	9083122	9	<0.5	0.02	0.41	1.33	0.01	0.05	0.29	0.17	333	29	922	6.5	18	8	45.3	61.4	4	24.7	<1	<0.2	<1	<5	41	<10	9	6	<1
E072S	560504	9082156	3	<0.5	0.02	0.54	1.54	0.02	0.06	0.38	0.26	437	44	944	8.54	19	12	45.6	78.2	4	34.9	<1	<0.2	<1	<5	36	<10	11	8	<1
E073S	553267	9095698	2	0.6	0.02	0.35	1.33	<0.01	0.05	0.28	0.43	453	21	1610	9.14	19	9	20.3	143	<3	53	<1	0.2	<1	<5	69	<10	17	13	<1
E074S	553254	9095664	2	0.5	0.01	0.3	1.82	0.01	0.05	0.27	0.26	384	27	1430	9.47	21	8	37.7	137	14	45.6	<1	0.2	<1	<5	136	<10	25	9	<1
E075S	553455	9095256	2	<0.5	0.02	0.3	1.83	0.02	0.06	0.28	0.21	303	21	1290	7.85	20	7	30.2	107	10	31.6	<1	<0.2	<1	<5	99	<10	28	13	<5
E076S	553817	9094880	11	<0.5	0.02	0.2	1.5	0.03	0.05	0.24	0.09	152	9	922	5.01	14	4	19.1	63	7	28.5	<1	<0.2	<1	<5	84	<10	35	7	<5
E077S	553860	9093064	2	<0.5	0.03	0.62	2.18	0.03	0.1	0.67	0.16	279	20	1460	7.96	20	8	32.3	116	11	45	<1	<0.2	<1	<5	116	<10	20	11	<5
E078S	553471	9092966	1	<0.5	0.02	0.48	1.74	0.02	0.1	0.71	0.17	298	23	1230	7.12	20	9	26.4	107	10	30.4	<1	<0.2	<1	<5	85	<10	19	5	<5
E079S	553053	9092844	3	<0.5	0.03	0.44	1.69	0.02	0.12	0.5	0.15	253	19	1270	6.22	16	7	21	113	7	29	<1	<0.2	<1	<5	81	<10	19	6	<5
E080S	552626	9092508	1	<0.5	0.04	0.57	1.76	0.02	0.09	0.55	0.24	339	27	1250	7.16	17	8	23.6	148	10	38.7	<1	<0.2	<1	<5	55	<10	13	5	<5
E081S	552879	9091664	5	<0.5	0.04	0.39	1.5	0.02	0.08	0.4	0.17	293	34	1080	7.18	18	8	25.4	96.8	27	33.3	<1	<0.2	<1	<5	62	<10	17	13	<5
E082S	552910	9091670	4	<0.5	0.02	0.36	1.4	0.02	0.08	0.33	0.16	253	25	850	6.94	16	7	28.1	75.2	25	27.7	<1	<0.2	<1	<5	56	<10	15	14	<5
E083S	552990	9091736	7	<0.5	0.03	0.49	1.61	0.02	0.09	0.38	0.11	243	27	973	6.65	18	7	28	86	29	32	<1	<0.2	<1	<5	52	<10	15	13	<5
E084S	551679	9091968	2	<0.5	0.06	0.52	1.71	0.02	0.08	0.61	0.15	160	19	990	4.63	12	7	16.3	80.2	5	47.1	<1	<0.2	<1	<5	54	<10	13	<2	<5
E085S	550639	9091714	16	<0.5	0.03	0.59	1.77	0.05	0.1	0.44	0.11	199	34	800	6.68	14	6	28.5	112	10	40.9	3	<0.2	<1	<5	42	<10	15	5	<5
E086S	549723	9102472	3	0.6	0.01	0.27	0.99	0.01	0.05	0.19	0.51	474	22	1370	11.2	19	9	16.9	128	<3	22.6	<1	<0.2	<1	<5	51	<10	13	5	7
E087S	549676	9102484	5	0.6	0.03	0.31	1.51	<0.01	0.05	0.26	0.44	437	27	1180	8.9	21	10	22	121	<3	33.6	<1	<0.2	<1	<5	85	<10	16	10	6
E088S	549536	9101634	18	0.6	0.02	0.37	0.89	0.02	0.07	0.18	0.49	411	27	1140	9.17	19	11	18.9	195	<3	16.8	<1	<0.2	<1	<5	47	<10	7	9	7
E089S	549530	9101346	<1	0.7	0.02	0.32	1.46	0.01	0.1	0.21	0.28	296	31	1020	6.78	15	8	19	107	<3	22.5	<1	<0.2	<1	<5	64	<10	12	7	<5
E090S	549744	9101292	<1	<0.5	0.02	0.3	1.11	0.01	0.08	0.2	0.27	263	20	840	6.1	13	7	17.6	104	<3	23.2	<1	<0.2	<1	<5	71	<10	12	8	<5
E093S	551287	9101242	3	<0.5	0.02	0.22	1.24	<0.01	0.06	0.22	0.22	249	22	938	6.22	12	6	19.1	90.9	<3	26.6	<1	<0.2	<1	<5	60	<10	15	8	<5
E094S	551586	9101300	<1	0.6	0.02	0.27	1.26	0.03	0.06	0.25	0.37	367	18	1140	8.3	17	7	18.8	101	<3	28.1	<1	<0.2	<1	<5	71	<10	17	6	5
E095S	551260	9101634	<1	0.7	0.04	0.31	1.08	<0.01	0.04	0.26	0.73	629	45	1130	12.3	28	16	20.1	135	<3	26.6	<1	<0.2	<1	<5	32	<10	10	4	11
E096S	551315	9102070	<1	0.5	0.01	0.21	1.06	<0.01	0.06	0.17	0.29	378	27	1010	9.03	16	7	24.2	84.6	<3	21.8	<1	<0.2	<1	<5	57	<10	12	10	<5
E097S	536000	9097000	<1	<0.5	0.01	0.6	1.59	0.02	0.08	0.2	0.17	273	21	1080	6.48	18	8	44.6	147	<3	21.8	<1	<0.2	<1	<5	71	<10	21	9	<5
E098S	535942	9097046	<1	<0.5	0.01	1.32	2.24	0.04	0.08	0.23	0.04	175	29	1470	5.69	19	9	88.9	196	18	19.1	<1	<0.2	<1	<5	72	<10	37	4	<5

Table A-8 Results of Analysis of Geochemical Survey Samples (13/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
E099S	536596	9096116	<1	<0.5	0.01	0.48	1.66	0.02	0.07	0.19	0.11	183	18	977	5.09	14	6	38.5	106	<3	24.4	<1	<0.2	<1	<5	79	<10	21	8	<5
E100S	536832	9096132	<1	<0.5	0.02	1.09	2.04	0.04	0.1	0.2	0.12	218	22	1320	6.4	16	8	52.6	151	<3	18.9	<1	0.3	<1	<5	50	<10	15	10	<5
E101S	536790	9096143	<1	<0.5	0.02	0.66	1.8	0.02	0.08	0.21	0.08	161	22	1180	4.92	14	6	38.1	129	<3	23.1	<1	<0.2	<1	<5	71	<10	16	9	<5
E102S	537013	9096508	<1	<0.5	0.02	0.9	1.6	0.03	0.09	0.19	0.08	152	9	1190	4.91	12	5	44.6	120	<3	16.5	1	<0.2	<1	<5	46	<10	12	8	<5
E103S	537038	9096522	<1	<0.5	0.02	0.66	1.69	0.02	0.07	0.18	0.11	189	21	1230	5.3	14	7	38.6	138	<3	20.5	<1	<0.2	<1	<5	62	<10	16	11	<5
E104S	537443	9097056	<1	<0.5	0.02	0.9	1.72	0.04	0.09	0.24	0.04	119	10	1140	4.62	11	5	40.7	127	3	17.8	1	<0.2	<1	<5	36	<10	13	6	<5
E105S	537393	9097106	4	<0.5	0.01	0.53	1.64	0.02	0.07	0.18	0.17	248	24	1210	6.16	17	8	37.8	132	<3	24.8	<1	<0.2	<1	<5	79	<10	19	9	<5
E106S	537277	9096930	<1	<0.5	0.02	0.37	1.21	0.02	0.07	0.14	0.08	121	9	897	4.02	10	4	21.3	75.6	<3	15.4	1	<0.2	<1	<5	48	<10	14	8	<5
E107S	499202	9108302	<1	0.6	<0.01	0.19	1.01	<0.01	0.05	0.22	0.42	327	20	904	6.82	14	5	11.6	95	<3	24.1	<1	<0.2	<1	<5	66	<10	14	7	6
E108S	499600	9108778	<1	<0.5	0.03	0.35	1.47	0.02	0.05	0.76	0.09	223	21	896	5.64	16	9	28.2	96.3	8	176	<1	<0.2	<1	<5	104	<10	22	11	<5
E109S	498453	9109940	<1	0.8	0.01	0.21	1.04	<0.01	0.02	0.14	0.75	540	33	1120	11.2	23	9	11	130	<3	14.9	<1	<0.2	<1	<5	68	<10	7	6	11
E110S	497683	9110014	<1	<0.5	0.02	0.21	1.16	<0.01	0.04	1.21	0.34	339	22	784	6.65	16	9	14.2	87	<3	136	<1	<0.2	<1	<5	100	<10	12	7	<5
E111S	497646	9110050	2	<0.5	0.03	0.2	1.01	<0.01	0.03	0.9	0.35	312	32	803	6.3	14	8	11.4	87.4	<3	89.4	<1	<0.2	<1	<5	78	<10	33	7	5
E112S	496961	9110588	<1	<0.5	0.03	0.13	0.97	<0.01	0.03	0.38	0.17	160	12	604	3.74	9	4	9.2	43.4	<3	36.3	1	<0.2	<1	<5	81	<10	9	5	<5
E113S	496345	9111230	<1	<0.5	0.07	0.11	1.11	<0.01	0.03	0.57	0.16	156	34	1090	3.27	12	4	11.3	40.3	<3	50.5	<1	<0.2	<1	<5	166	<10	9	7	<5
E114S	496075	9111290	<1	0.6	0.03	0.17	0.86	<0.01	0.02	1.3	0.54	428	22	675	6.92	17	8	9.5	82	<3	51	<1	<0.2	<1	<5	47	<10	7	4	8
E115S	503564	9106294	5	<0.5	0.04	0.35	1.35	0.03	0.04	1.14	0.19	372	31	1160	7.87	21	14	32.9	117	13	177	2	<0.2	<1	<5	85	<10	39	10	<5
E116S	503717	9106794	3	<0.5	0.01	0.26	1.14	0.01	0.08	0.24	0.15	185	23	909	5.33	12	5	30	119	6	27	2	<0.2	<1	<5	67	<10	12	38	<5
E117S	503742	9106766	2	<0.5	0.01	0.24	1.44	0.02	0.06	0.25	0.13	197	19	970	5.76	15	7	32.3	79.3	6	56	2	<0.2	<1	<5	93	<10	22	17	<5
E118S	512572	9126898	3	0.8	0.04	0.33	1.63	<0.01	0.03	0.38	0.64	584	29	1410	10.6	27	10	20.4	124	<3	40	<1	<0.2	<1	<5	161	<10	10	6	9
E119S	512481	9126366	3	0.6	0.03	0.97	2.7	0.02	0.09	0.62	0.2	231	9	1130	5.85	19	5	35.8	78.6	<3	66.2	<1	<0.2	<1	<5	122	<10	18	2	<5
E120S	512048	9125454	2	0.8	0.03	0.46	2.59	0.01	0.06	0.37	0.37	413	23	1230	8.03	26	7	30.7	82.1	<3	35.4	<1	<0.2	<1	<5	148	<10	13	6	5
E121S	510916	9125778	1	0.5	0.03	0.71	2.37	0.01	0.08	0.47	0.19	223	14	1050	5.48	19	7	32.4	67.5	<3	66.2	<1	<0.2	<1	<5	127	<10	9	3	<5
E122S	510340	9126192	1	0.8	0.03	0.44	1.71	<0.01	0.05	0.36	0.57	563	39	1410	9.59	27	11	23.2	118	<3	36.4	<1	<0.2	<1	<5	151	<10	7	4	8
E123S	509724	9125942	4	0.7	0.02	0.47	2.9	<0.01	0.06	0.4	0.17	232	18	1220	6.04	20	7	34.1	54.3	<3	46.9	<1	<0.2	<1	<5	212	<10	9	6	<5
E124S	509569	9125932	2	0.6	0.04	0.44	2.45	0.01	0.06	0.48	0.28	333	23	1300	6.8	22	7	26.7	72.2	<3	47.3	<1	<0.2	<1	<5	166	<10	12	4	<5
E125S	509160	9125900	<1	<0.5	0.04	0.47	2.16	0.01	0.06	0.49	0.21	224	21	1190	5.43	16	6	27.2	64	<3	43.1	<1	<0.2	<1	<5	131	<10	9	3	<5
E126S	510590	9126530	69	0.6	<0.01	0.31	0.74	<0.01	<0.01	0.07	0.94	778	29	1830	18.1	38	13	16.9	213	<3	7	<1	<0.2	<1	<5	53	<10	5	5	14
E127S	508510	9127170	6	0.9	0.02	0.25	1.55	<0.01	0.02	0.18	0.75	645	32	1680	14.1	32	12	24.3	140	<3	22.3	<1	<0.2	<1	<5	174	<10	10	7	11
E128S	507733	9127698	2	0.8	0.02	0.31	1.23	<0.01	0.01	0.17	0.94	802	31	1950	16.8	38	14	19.2	178	<3	19.9	<1	<0.2	<1	<5	118	<10	8	5	13
E129S	508485	9127698	23	0.9	0.01	0.29	1.36	<0.01	0.02	0.17	0.94	790	34	2060	16.6	37	13	21.3	183	<3	20.8	<1	<0.2	<1	<5	148	<10	11	7	14
E130S	507684	9127240	4	0.5	0.04	0.24	2.01	<0.01	0.03	0.5	0.12	226	12	1160	5.92	18	5	24.8	47.5	<3	47.2	<1	<0.2	<1	<5	231	<10	13	8	<5
E131S	506595	9127596	2	0.5	0.05	0.71	2.57	0.01	0.06	0.65	0.2	237	23	1050	5.87	20	8	34.3	64.4	<3	71.3	<1	<0.2	<1	<5	156	<10	10	3	<5
E132S	512950	9127004	2	0.7	0.04	0.47	2.1	0.02	0.05	0.49	0.43	385	19	1530	8.2	23	9	24.1	102	<3	48.7	<1	<0.2	<1	<5	183	<10	37	6	6
E133S	507250	9128786	4	0.7	<0.01	0.28	0.71	<0.01	<0.01	0.08	0.84	738	27	1430	16.1	34	12	15	179	<3	7.8	<1	<0.2	<1	<5	39	<10	9	4	12
E134S	507217	9128832	4	0.8	0.05	0.27	1.96	<0.01	0.02	0.32	0.78	691	30	1620	13.9	32	11	18.7	149	<3	38.4	<1	<0.2	<1	<5	160	<10	26	4	11
E135S	506434	9128216	6	0.8	0.05	0.27	2.08	<0.01	0.03	0.34	0.72	640	33	1620	13.2	31	11	19.7	142	<3	42.4	<1	<0.2	<1	<5	178	<10	19	4	10
E136S	504575	9128562	7	0.7	0.06	0.6	2.6	0.02	0.05	0.57	0.39	389	21	1390	8.6	24	10	30.5	95.5	<3	50.1	<1	<0.2	<1	<5	177	<10	24	4	5
E137S	503167	9128440	4	0.6	0.05	0.43	1.9	0.01	0.07	0.49	0.42	375	20	927	7.11	20	7	21.1	91	<3	38.2	<1	<0.2	<1	<5	78	<10	11	3	5
E138S	502434	9128414	5	0.7	0.06	0.54	2.68	0.02	0.06	0.62	0.43	349	30	920	7.27	20	8	25.2	83.1	<3	51.2	<1	<0.2	<1	<5	113	<10	13	<2	5
E139S	501315	9128392	16	0.7	0.03	0.42	1.96	0.01	0.04	0.49	0.4	365	20	944	7.37	20	6	23.3	79.5	<3	41.9	<1	<0.2	<1	<5	118	<10	27	4	6
E140S	501244	9129036	3	0.6	0.02	0.18	1.09	0.01	0.02	0.18	0.59	513	18	1200	10.7	23	8	12.3	132	<3	24.8	<1	<0.2	<1	<5	123	<10	16	6	9
E141S	504651	9128746	1	0.5	0.03	0.57	1.96	0.01	0.05	0.55	0.26	284	12	1540	6.55	23	6	24.7	76.4	<3	51.3	<1	<0.2	<1	<5	246	<10	9	4	<5
F001S	543528	9114714	<1	<0.5	0.09	0.63	1.97	0.02	0.12	0.73	0.21	165	27	887	4.6	12	7	12.7	89.9	<3	100	<1	<0.2	<1	<5	70	<10	7	3	6
F002S	543429	9114776	2	<0.5	0.12	1.12	2.66	0.03	0.13	1.04	0.23	202	19	870	5.17	19	12	47.9	80.1	<3	85.9	<1	<0.2	<1	<5	50	<10	6	<2	7
F003S	542753	9115060	2	<0.5	0.13	0.91	2.34	0.03	0.12	0.99	0.35	257	28	999	5.9	18	11	35.8	109	<3	81.3	<1	<0.2	<1	<5	46	<10	<5	<2	10
F004S	542770	9115120	4	<0.5	0.12	1.23	2.88	0.04	0.14	1.02	0.24	225	20	869	5.55	21	13	55.2	80.6	<3	87.9	<1	<0.2	<1	<5	51	<10	6	<2	7
F005S	545539	9112290	1	<0.5	0.06	1.36	2.44	0.03	0.13	0.56	0.08	166	22	927	4.94	15	9	30.9	132	<3	40.2	<1	<0.2	<1	<5	70	<10	<5	8	<5
F006S	545747	9112256	1	<0.5	0.08	0.9	2.04	0.03	0.1	0.5	0.31	356	36	1040	8.3	20	13	48.3	143	<3	43.2	<1	<0.2	<1	<5	48	<10	<5	6	10
F007S	545864	9112000	21	<0.5	0.1	0.7	2.07	0.02	0.09	0.59	0.46	474	43	1130	10.2	24	15	23.8	153	<3	47.9	<1	<0.2	<1	<5	51	<10	<5	4	15
F008S	545750	9111890	1	<0.5	0.09	1	2.22	0.04	0.11	0.52	0.13	222	31	860	5.94	15	10	69.7	133	<3	44.3	1	<0.2	<1	<5	48	<10	5	5	<5
F009S	546536	9110640	19	<0.5	0.05	0.46	1.41	0.03	0.13	0.31	0.38	423	38	1120	9.44	21	13	27.4	158	<3	25.8	<1	<0.2	<1	<5	50	<10	9	10	14
F010S	546313	9110560	<1	<0.5	0.1	0.85	2.44	0.02	0.1	0.69	0.2	245	31	927	5.57	16	10	21.8	96.6	<3	56.8	<1	<0.2	<1	<5	60	<10	<5	<2	6
F011S	546212	9110862	<1	<0.5	0.1	0.73	2.29	0.02	0.1	0.67	0.29	329	37	990	6.99	18	12	20.8	118	<3	54.3	<1	0.5	<1	<5	54	<10	<5	3	10
F012S	545752	9110672	<1	<0.5	0.09	1.14	2.45	0.04	0.11	0.56	0.08	162	21	887	5.06	14	10	71.7	124	<3	50.2	<1	0.2	<1	<5	53	<10	6	4	<5

Table A-8 Results of Analysis of Geochemical Survey Samples (14/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
F013S	545562	9110722	1	<0.5	0.06	0.77	1.9	0.02	0.12	0.38	0.12	193	19	990	4.92	14	7	35.5	132	<3	37.4	<1	<0.2	<1	<5	84	<10	6	8	<5
F014S	545041	9108910	2	<0.5	0.05	1.26	2.28	0.04	0.13	0.33	0.14	264	20	1170	7.5	20	8	110	190	<3	32.7	<1	0.3	<1	<5	37	<10	6	11	6
F015S	545160	9108898	1	<0.5	0.06	0.64	1.49	<0.01	0.05	0.39	0.62	527	44	1160	12.7	29	23	24.1	170	<3	31.2	<1	0.2	<1	<5	27	<10	<5	3	21
F016S	544098	9110926	1	<0.5	0.04	0.74	1.62	0.02	0.07	0.26	0.37	442	32	1040	9.69	24	12	26	158	<3	25.7	<1	<0.2	<1	<5	48	<10	<5	3	13
F017S	542549	9108590	3	<0.5	0.04	1.08	1.84	0.04	0.1	0.23	0.14	289	40	936	7.4	16	10	45.5	164	<3	16.7	<1	<0.2	<1	<5	39	<10	<5	8	6
F018S	542398	9108786	2	<0.5	0.09	1.28	2.54	0.03	0.1	0.43	0.42	502	47	999	10.3	28	15	47.3	137	<3	42	<1	<0.2	<1	<5	40	<10	6	5	13
F019S	542377	9109166	1	0.6	0.04	0.78	1.69	0.01	0.08	0.27	0.5	495	39	1280	10.9	24	12	23.6	194	<3	25.1	<1	<0.2	<1	<5	52	<10	<5	7	16
F020S	542294	9110848	<1	<0.5	0.04	1.69	2.46	0.03	0.13	0.39	0.12	257	47	878	6.18	18	15	29.5	93.6	<3	26.5	<1	<0.2	<1	<5	35	<10	<5	<2	<5
F021S	541107	9111806	<1	0.6	0.06	0.44	1.29	0.05	0.07	0.41	0.57	411	30	1630	10.5	17	8	8.3	192	<3	32.3	<1	0.2	<1	<5	43	<10	<5	3	18
F022S	540415	9112216	<1	<0.5	0.03	0.71	1.41	0.02	0.07	0.52	0.47	423	38	1400	10.1	21	12	32	295	<3	26.1	<1	0.6	<1	<5	222	<10	8	106	15
F023S	540347	9111968	5	<0.5	0.05	0.64	2.22	0.02	0.07	0.54	0.28	360	58	1200	10.4	26	15	41.1	136	47	47.9	<1	0.3	<1	<5	37	<10	61	15	11
F024S	538073	9110570	<1	0.6	0.03	0.49	1.36	0.02	0.06	0.27	0.52	421	34	1350	10.8	21	11	22.7	238	<3	25.9	<1	<0.2	<1	<5	58	<10	5	20	18
F025S	538227	9110690	<1	<0.5	0.04	0.52	1.85	0.02	0.1	0.3	0.26	291	51	1100	7.25	18	10	44.5	141	<3	26.9	<1	<0.2	<1	<5	98	<10	11	15	10
F026S	538897	9109936	<1	<0.5	0.02	0.55	1.73	0.02	0.09	0.31	0.2	263	40	1260	6.9	17	12	45.1	181	<3	19	<1	0.3	<1	<5	97	<10	11	26	8
F027S	539076	9109966	<1	<0.5	0.03	0.7	2.18	0.02	0.1	0.26	0.16	203	22	1170	5.88	16	7	60.5	142	<3	31.1	<1	0.2	<1	<5	114	<10	12	8	6
F028S	538170	9112632	1	0.6	0.03	0.24	2.02	0.02	0.04	0.36	0.32	220	13	1160	7.35	13	5	10.8	114	<3	35.8	<1	<0.2	<1	<5	80	<10	14	5	11
F029S	537235	9113090	<1	0.7	0.04	0.37	1.89	<0.01	0.04	0.4	0.55	430	38	1320	11.1	22	7	11.7	193	<3	40.8	<1	<0.2	<1	<5	79	<10	9	6	18
F030S	534741	9112546	1	0.6	0.01	0.28	1.86	<0.01	0.04	0.15	0.59	393	26	1740	11.7	24	12	18.1	206	<3	36.5	<1	<0.2	<1	<5	135	<10	23	4	20
F031S	535089	9111092	<1	<0.5	0.03	0.53	1.69	0.02	0.06	0.23	0.14	205	32	1090	5.27	15	10	42.2	143	<3	22.9	<1	<0.2	<1	<5	64	<10	7	3	<5
F032S	535176	9111524	1	0.6	0.03	0.76	1.63	<0.01	0.08	0.27	0.5	453	55	1380	10.3	23	33	38.3	187	<3	46.1	<1	<0.2	<1	<5	50	<10	5	4	16
F033S	535722	9110660	<1	<0.5	0.04	0.8	2.02	0.02	0.07	0.24	0.11	234	51	1120	5.8	17	15	45.1	238	<3	21.9	<1	<0.2	<1	<5	57	<10	6	4	<5
F034S	536094	9111160	1	0.6	0.03	0.96	2.1	0.01	0.07	0.33	0.49	441	67	1400	10.5	26	29	62.2	356	<3	33.3	<1	0.3	<1	<5	127	<10	8	40	16
F035S	535899	9111107	<1	<0.5	0.09	1.13	3.52	0.02	0.1	0.65	0.3	290	30	1170	7.28	24	20	53.8	111	<3	122	<1	<0.2	<1	<5	87	<10	9	<2	9
F036S	535811	9100670	<1	0.6	0.02	0.29	1.79	0.01	0.07	0.21	0.19	212	18	990	6	14	7	18.7	99.6	<3	33.3	<1	<0.2	<1	<5	96	<10	18	8	7
F037S	535731	9100760	2	<0.5	0.02	0.31	0.92	<0.01	0.03	0.13	0.63	559	39	1270	14.4	30	16	18.9	142	<3	16.8	<1	0.2	<1	<5	36	<10	11	5	22
F038S	536138	9099956	<1	<0.5	0.02	0.24	1.54	0.02	0.04	0.16	0.25	228	55	733	7.19	12	8	12	59.4	<3	21.6	<1	<0.2	<1	<5	59	<10	14	4	10
F039S	550122	9083742	46	<0.5	0.06	0.4	1.38	0.02	0.09	0.81	0.29	397	66	945	12.2	21	15	50.7	120	25	72.2	2	<0.2	<1	<5	33	<10	47	26	13
F040S	550549	9083636	5	<0.5	0.04	0.51	1.51	0.02	0.11	0.4	0.17	293	55	945	10.2	18	12	29.1	83.4	25	29.1	<1	<0.2	<1	<5	36	<10	9	13	8
F041S	550508	9083595	26	<0.5	0.06	0.47	1.59	0.02	0.11	0.41	0.15	268	40	1030	9.69	20	12	34.1	86	32	29.8	<1	0.2	<1	<5	40	<10	21	17	8
F042S	549603	9083074	14	<0.5	0.03	0.4	1.24	0.03	0.08	0.35	0.11	273	40	999	10.5	13	11	30.4	107	19	26.4	<1	<0.2	<1	<5	35	<10	12	25	7
F043S	550883	9085126	132	<0.5	0.05	0.5	1.83	<0.01	0.06	0.84	0.32	468	70	1220	11.8	30	18	35.5	103	21	43.8	<1	0.3	<1	<5	45	<10	26	15	13
F044S	550845	9086328	1	0.5	0.07	0.34	1.67	<0.01	0.02	0.47	0.79	687	52	1510	16.3	40	24	28.1	151	7	39.2	<1	<0.2	<1	<5	34	<10	34	4	27
F045S	552280	9085174	10	<0.5	0.04	0.48	1.37	0.02	0.07	0.52	0.34	384	57	999	10.5	29	20	35.8	136	48	34.5	<1	0.4	<1	<5	23	<10	39	27	13
F046S	552443	9085250	28	0.5	0.04	0.51	1.49	<0.01	0.07	0.81	0.69	689	76	1430	16.8	36	23	33.2	172	16	36	<1	0.3	<1	<5	33	<10	23	18	25
F047S	553678	9082976	<1	<0.5	0.03	0.66	1.94	0.02	0.08	0.54	0.09	252	37	899	7.49	17	12	32.8	73.2	18	35.8	<1	<0.2	<1	<5	37	<10	11	6	5
F048S	553493	9082942	2	<0.5	0.04	0.66	2.14	0.02	0.07	0.53	0.22	301	45	1140	9.14	24	13	41.9	121	49	48.2	<1	0.3	<1	<5	38	<10	71	16	9
F049S	552622	9082144	26	<0.5	0.04	0.3	1.27	0.02	0.06	0.42	0.13	189	47	734	6.76	12	9	91.3	129	31	33.5	3	<0.2	<1	<5	37	<10	43	42	7
F050S	553478	9082640	<1	<0.5	0.02	0.75	2.06	0.02	0.06	0.6	0.06	184	23	918	6.42	17	10	34.5	74	16	39.8	<1	<0.2	<1	<5	37	<10	17	6	<5
F051S	553856	9082528	<1	<0.5	<0.01	0.31	0.75	0.01	0.02	0.17	0.35	527	55	858	13.9	23	20	28.4	144	16	10.4	<1	<0.2	<1	<5	12	<10	6	9	15
F052S	554950	9083008	1	<0.5	0.03	0.63	1.75	0.02	0.08	0.37	0.31	500	57	1110	12.6	23	20	36	145	15	28.4	<1	<0.2	<1	<5	30	<10	7	7	12
F053S	552850	9086042	<1	<0.5	0.04	0.42	1.22	0.04	0.06	1.04	0.32	417	34	842	11.8	15	15	27.9	107	17	44	<1	<0.2	<1	<5	26	<10	36	7	13
F054S	556679	9084230	1	<0.5	0.02	0.48	1.71	0.02	0.06	0.33	0.23	439	40	909	11.8	24	18	35.1	108	19	23	<1	<0.2	<1	<5	32	<10	21	8	10
F055S	556741	9084122	<1	<0.5	0.02	0.86	2.96	0.02	0.05	0.33	0.09	191	34	936	6.36	19	11	44.5	69.6	<3	39.3	<1	<0.2	<1	<5	61	<10	7	4	<5
F056S	556440	9083850	1	<0.5	0.04	0.5	2.25	0.02	0.07	0.32	0.17	276	40	1030	8.29	21	11	45.3	76.4	<3	30.5	<1	0.2	<1	<5	46	<10	8	8	8
F057S	556181	9083806	2	<0.5	0.02	0.5	2.1	0.02	0.05	0.26	0.12	330	38	927	9.07	17	14	29.8	80.7	7	24.9	<1	<0.2	<1	<5	56	<10	11	6	7
F058S	555582	9086820	<1	<0.5	0.04	0.9	2.54	0.02	0.1	0.67	0.19	301	26	1110	8.78	19	14	33	102	11	47.8	<1	<0.2	<1	<5	50	<10	10	4	8
F059S	554605	9086842	4	<0.5	0.04	0.7	2.4	0.02	0.05	1.83	0.14	207	26	1170	6.03	19	11	32.6	66.7	39	91.4	1	<0.2	<1	<5	68	<10	34	6	<5
F060S	553891	9086908	1	<0.5	0.08	0.9	2.04	0.03	0.1	0.5	0.31	356	36	1040	8.3	20	13	48.3	143	<3	43.2	<1	<0.2	<1	<5	48	<10	10	6	10
F061S	553277	9087192	1	<0.5	0.05	0.55	1.85	<0.01	0.06	0.57	0.28	367	48	1170	9.18	21	12	23.6	144	5	49.9	<1	<0.2	<1	<5	55	<10	11	6	10
F062S	552630	9086466	3	<0.5	0.04	0.63	2.25	0.01	0.08	0.61	0.15	238	15	1090	7.16	18	8	25.2	104	10	59.9	<1	<0.2	<1	<5	63	<10	11	5	6
F063S	548645	9086822	3	<0.5	0.06	0.32	0.87	<0.01	0.03	0.29	0.65	534	42	990	12.8	28	16	18.4	137	<3	25.3	<1	<0.2	<1	<5	12	<10	20	3	22
F064S	548082	9086954	<1	<0.5	0.11	0.17	1.55	<0.01	0.04	2.09	0.32	285	22	752	6.84	16	10	14	81.6	11	85.5	2	0.2	<1	<5	34	<10	18	6	11
F065S	548163	9087406	8	<0.5	0.13	0.21	1.75	0.01	0.05	1.01	0.32	282	32	473	6.42	15	10	13.8	82.8	4	71.1	1	<0.2	<1	<5	28	<10	200	4	11
F066S	548853	9092694	2	<0.5	0.07	1.62	3.37	0.02	0.1	2.12	0.09	190	28	860	5.67	20	19	29.8	79.3	<3	107	<1	0.2	<1	<5	51	<10	17	<2	<5
F067S	548940	9092836	1	<0.5	0.03	0.59	2.18	0.01	0.13	0.63	0.26	286	31	1310	7.46	17	9	28	141	<3	56.9	<1	<0.2	<1	<5	142	<10	467	7	9

Table A-8 Results of Analysis of Geochemical Survey Samples (15/15)

Sample No.	UTM(E)	UTM(N)	Au	Be	Na	Mg	Al	P	K	Ca	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Mo	Ag	Cd	Sb	Ba	W	Hg	Pb	Bi
			ppb	ppm	%	%	%	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
F068S	549757	9092102	7	<0.5	0.05	1.3	2.66	0.02	0.07	1.89	0.13	212	26	954	6.05	19	17	28.3	98	<3	94	<1	<0.2	<1	<5	89	<10	17	2	<5
F069S	549783	9092286	3	<0.5	0.04	0.49	1.86	0.02	0.07	0.78	0.29	308	21	1110	7.82	18	8	48.4	218	5	64.8	<1	0.4	<1	<5	160	<10	51	18	10
F070S	549824	9091560	3	<0.5	0.06	1.26	2.96	0.02	0.1	2	0.09	174	22	899	5.4	17	15	32.3	96.7	<3	100	<1	<0.2	<1	<5	92	<10	26	3	<5
F071S	550168	9091728	4	<0.5	0.02	0.44	1.26	0.04	0.06	0.26	0.15	251	17	872	9.6	16	6	27.5	150	27	24.4	1	<0.2	<1	<5	50	<10	26	10	11
F072S	550337	9092522	4	<0.5	0.02	0.49	1.57	0.03	0.05	0.3	0.12	205	8	1030	8.02	16	6	26.8	139	17	28.4	1	<0.2	<1	<5	51	<10	25	8	7
F073S	549516	9101292	2	<0.5	0.02	0.28	1.19	0.01	0.08	0.17	0.22	210	28	843	5.97	13	7	15	97.4	<3	17.1	<1	<0.2	<1	<5	52	<10	10	6	8
F074S	549745	9101170	1	<0.5	0.03	0.72	1.82	0.03	0.13	0.3	0.19	180	11	1040	5.59	11	6	16.2	170	<3	27.4	<1	<0.2	<1	<5	73	<10	8	5	6
F075S	549770	9101416	3	<0.5	0.06	0.38	1.92	0.02	0.14	0.32	0.13	152	23	734	4.75	10	7	16.5	87.6	<3	32.9	2	<0.2	<1	<5	72	<10	11	5	<5
F076S	547410	9102878	4	0.6	0.03	0.57	1.37	0.01	0.09	0.17	0.6	525	75	1350	12.3	29	19	42.4	143	<3	16.3	<1	<0.2	<1	<5	56	<10	7	6	19
F077S	547111	9102840	3	<0.5	0.03	0.52	1.81	0.02	0.05	0.26	0.3	318	30	1180	8.11	20	11	31	132	<3	28.7	<1	<0.2	<1	<5	81	<10	15	8	10
F078S	547613	9102108	1	<0.5	0.03	0.85	1.86	0.03	0.09	0.24	0.05	164	38	1080	5.29	12	9	85.3	228	<3	22.4	<1	<0.2	<1	<5	67	<10	5	13	<5
F079S	548590	9102752	<1	<0.5	0.09	0.43	1.99	<0.01	0.11	0.48	0.38	327	40	1110	8.46	17	11	18.8	133	<3	55	1	0.2	<1	<5	59	<10	10	2	12
F080S	546082	9102106	1	0.6	0.04	0.71	1.6	<0.01	0.07	0.22	0.64	584	77	1720	14.5	29	19	41.9	233	<3	21.6	<1	0.3	<1	<5	46	<10	5	9	21
F081S	545922	9101342	5	<0.5	0.07	0.38	1.61	0.02	0.05	0.31	0.42	366	64	1410	8.97	21	13	68.4	159	<3	31.2	<1	0.2	<1	<5	45	<10	10	11	13
F082S	546293	9100956	5	<0.5	0.03	0.76	1.7	0.02	0.07	0.21	0.25	282	37	1320	7.4	19	12	68.3	209	<3	20	<1	<0.2	<1	<5	57	<10	9	14	8
F083S	547336	9099302	17	<0.5	0.04	1.25	2.37	0.03	0.07	0.21	0.4	447	75	1440	10.5	27	19	43.2	223	<3	19.6	<1	0.3	<1	<5	47	<10	6	12	13
F084S	547500	9099822	4	<0.5	0.03	0.61	1.25	0.01	0.06	0.21	0.35	313	35	1010	8.13	19	15	23.8	137	<3	19.9	<1	<0.2	<1	<5	53	<10	6	9	12
F085S	546960	9100152	3	<0.5	0.03	1.01	1.91	0.02	0.08	0.21	0.45	431	90	1450	10.3	26	21	49.1	223	<3	18.7	<1	0.3	<1	<5	55	<10	10	16	15
F086S	548111	9099082	<1	<0.5	0.03	0.64	1.49	0.01	0.07	0.25	0.3	288	34	1030	7.47	19	13	30.7	139	<3	22.6	<1	<0.2	<1	<5	58	<10	10	12	10
F087S	548447	9098444	27	0.5	0.02	0.55	1.5	0.01	0.1	0.19	0.62	551	45	1830	13.1	29	17	33.6	204	<3	15.4	<1	0.4	<1	<5	101	<10	12	47	21
F088S	504225	9113714	12	<0.5	0.02	1.05	2.77	0.02	0.06	0.4	0.06	223	23	1160	6.94	20	9	32.2	71.6	<3	39.2	<1	<0.2	<1	<5	83	<10	6	<2	<5
F089S	504414	9113610	60	<0.5	0.02	0.35	1.68	0.02	0.09	0.21	0.15	249	34	1040	7.29	15	8	21	79.9	<3	19.8	<1	<0.2	<1	<5	69	<10	10	18	8
F090S	503954	9113214	9	<0.5	0.04	0.29	1.81	0.01	0.09	0.32	0.24	318	39	1200	8.22	20	9	20.6	82.2	<3	30.5	<1	<0.2	<1	<5	74	<10	9	9	10
F091S	502927	9113644	<1	<0.5	0.02	1.03	2.33	0.02	0.03	0.47	0.05	197	14	1130	6.36	16	6	27	67.3	<3	38.9	<1	<0.2	<1	<5	62	<10	6	2	<5
F092S	503047	9113562	28	<0.5	0.02	0.41	2.1	0.02	0.09	0.24	0.15	252	35	1160	7.19	15	8	22.1	84.2	<3	23.1	<1	<0.2	<1	<5	76	<10	17	13	6
F093S	502501	9112990	2	<0.5	0.04	0.17	0.96	<0.01	0.04	0.25	0.53	314	33	766	8.13	15	8	7.2	99	<3	30.6	<1	0.2	<1	<5	39	<10	<5	4	17
F094S	501308	9113188	3	<0.5	0.02	0.68	2.04	0.02	0.06	0.39	0.11	198	21	880	5.46	12	6	19.4	76.5	<3	35.7	<1	<0.2	<1	<5	50	<10	<5	4	<5
F095S	497279	9130352	8	0.7	0.03	0.32	4.1	0.03	0.06	0.38	0.12	148	8	1520	5.42	19	6	34.2	53.6	<3	50.3	<1	<0.2	<1	<5	306	<10	46	6	<5
F096S	496545	9131370	6	0.5	0.01	0.27	0.91	0.01	<0.01	0.13	0.83	635	20	1940	16.2	34	11	11.7	183	<3	10.1	<1	0.3	<1	<5	86	<10	<5	6	27
F097S	497947	9130422	3	0.7	0.03	0.28	2.02	<0.01	0.02	0.25	0.75	606	23	2390	15.4	36	11	18.3	160	<3	28.5	<1	0.5	<1	<5	251	<10	11	7	24
F098S	499121	9129600	5	0.6	0.01	0.3	1.23	<0.01	0.01	0.12	0.83	651	26	1730	17.5	35	12	14.6	190	<3	13.3	<1	0.4	<1	<5	107	<10	8	5	27
F099S	493937	9126250	6	<0.5	0.04	0.27	1.44	<0.01	0.04	0.54	0.5	374	39	972	8.07	19	9	11.2	101	<3	46.4	<1	<0.2	<1	<5	101	<10	21	5	15
F100S	493540	9127600	2	<0.5	0.04	0.32	1.71	0.01	0.04	0.73	0.27	241	24	841	5.49	16	8	15.6	70.7	<3	50.3	<1	<0.2	<1	<5	130	<10	9	9	8
F101S	492215	9128082	<1	0.5	0.03	0.25	1.53	<0.01	0.02	0.35	0.52	439	32	954	8.45	21	9	11.7	96.7	<3	31.5	<1	0.2	<1	<5	135	<10	20	5	16
F102S	493455	9130186	2	<0.5	0.08	0.15	1.41	<0.01	0.01	0.57	0.21	196	14	707	4.83	13	5	8.7	49.5	<3	45.8	<1	<0.2	<1	<5	87	<10	9	4	7
F103S	495978	9131892	<1	0.6	0.03	0.31	1.55	<0.01	0.02	0.23	0.82	632	20	1680	17	35	11	15.3	183	<3	24.9	<1	0.3	<1	<5	142	<10	12	8	26
F104S	496172	9132874	<1	0.5	0.02	0.22	1.83	<0.01	0.02	0.25	0.48	404	18	1440	10.8	24	8	13.8	118	<3	32	<1	0.2	<1	<5	202	<10	17	7	16
F105S	495136	9133184	<1	0.5	0.01	0.21	2.28	0.01	0.02	0.25	0.35	341	12	1400	9.42	22	7	18.3	94.1	<3	41.6	<1	<0.2	<1	<5	232	<10	32	7	12
F106S	495930	9139576	<1	0.6	0.01	0.32	0.9	0.01	<0.01	0.13	0.98	741	35	1770	20.5	37	13	11.3	245	<3	9.7	<1	0.4	<1	<5	50	<10	24	7	31
F107S	494135	9138436	3	0.6	0.01	0.32	1.71	<0.01	0.02	0.17	0.87	715	27	1760	19.5	38	13	16.4	207	<3	17.3	<1	0.3	<1	<5	128	<10	13	7	29
F108S	494493	9137500	3	0.7	0.01	0.23	2.04	<0.01	0.02	0.15	0.61	505	17	2020	14.7	35	9	21.2	131	<3	23.6	<1	0.3	<1	<5	226	<10	55	9	21
F109S	493478	9137060	2	0.6	0.03	0.21	2.18	0.01	0.02	0.3	0.42	402	17	1620	9.47	27	8	20.2	105	<3	36.6	<1	<0.2	<1	<5	264	<10	19	8	15
F110S	492779	9135738	4	<0.5	0.01	0.32	0.93	<0.01	0.01	0.12	0.87	663	23	1690	18.5	37	12	19.3	206	<3	10.6	<1	0.2	<1	<5	81	<10	12	9	28
F111S	492459	9135574	1	0.7	0.02	0.31	1.44	<0.01	0.02	0.19	0.97	746	33	2120	19.7	38	13	15.3	220	<3	19.1	<1	0.6	<1	<5	133	<10	13	8	30
F112S	491631	9134424	6	<0.5	0.06	0.35	1.61	0.02	0.02	0.47	0.61	526	75	1050	11.1	28	18	13.5	139	<3	33.8	<1	<0.2	<1	<5	79	<10	11	6	19
F113S	490730	9132480	1	<0.5	0.06	0.56	2.48	0.01	0.03	0.55	0.46	419	73	802	8.99	24	18	17	101	<3	42.3	<1	<0.2	<1	<5	63	<10	10	2	14
F114S	489832	9131798	4	<0.5	0.05	0.32	1.57	0.01	0.03	0.42	0.43	360	64	918	8.07	21	14	11.3	104	<3	37.8	<1	<0.2	<1	<5	70	<10	11	4	13

Table A-8 Results of Analysis of Geochemical Survey Samples (Duplicates Samples)

Sample No.	Au	Be	Na	Mg	Al	P	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Y	Zr	Mo	Ag	Cd	Sn	Sb	Ba	La	W	Hg	Pb	Bi
	ppb	ppm	%	%	%	%	%	%	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
A021D	5	<0.5	0.04	0.37	1.87	0.03	0.1	0.29	7.5	0.17	213	23	1330	6.1	22	4	31.4	124	<3	33.1	9.5	10.2	<1	<0.2	<1	<10	<5	122	7.7	<10	18	16	<5
	31	<0.5	0.03	0.32	1.93	0.02	0.09	0.26	8	0.14	182	21	1190	5.22	20	3	28.6	97.3	<3	30.8	9.6	13.8	<1	<0.2	<1	<10	<5	130	8.2	<10	31	13	<5
A053D	4	<0.5	0.03	0.56	1.09	0.02	0.06	0.15	6	0.73	685	75	1480	13.5	50	15	42.3	192	<3	13.4	4.5	2.8	<1	<0.2	5	<10	<5	36	12.1	<10	<5	11	<5
	9	<0.5	0.04	0.64	1.46	0.02	0.08	0.21	6.1	0.36	388	29	1280	8.3	29	8	40.9	152	<3	20.1	6	4.8	<1	<0.2	2	<10	<5	51	10.1	<10	15	10	<5
A060D	6	<0.5	0.08	0.57	2.36	0.02	0.07	0.91	8.8	0.34	364	37	1340	7.78	31	11	28.2	144	<3	106	11.6	9.7	<1	<0.2	1	<10	<5	114	9.7	<10	<5	6	<5
	4	<0.5	0.08	0.54	2.1	0.04	0.08	0.85	7.9	0.4	427	65	1360	8.1	33	10	26.4	148	<3	90.2	10	9.1	<1	<0.2	2	<10	<5	96	11	<10	12	6	<5
A094D	7	<0.5	0.04	0.4	1.13	<0.01	0.02	0.2	8.7	0.85	815	101	1920	15.1	62	18	22.7	221	<3	23.5	5.3	11.8	<1	<0.2	6	<10	<5	36	12.5	<10	<5	6	<5
	<1	<0.5	0.03	0.4	1.16	<0.01	0.02	0.19	8.5	0.94	859	82	1910	13.8	61	15	24.3	204	<3	24.3	5.8	13.2	<1	<0.2	7	<10	<5	46	15.7	<10	7	<2	<5
A117D	7	<0.5	0.04	0.46	2.04	0.02	0.05	0.57	9.7	0.37	420	45	1350	8.92	35	10	36.3	128	7	60.6	10.2	12.1	<1	<0.2	2	<10	<5	110	8.8	<10	36	9	<5
	1	<0.5	0.04	0.39	1.5	0.02	0.04	0.43	7.9	0.54	559	59	1400	10.2	42	11	34.6	150	6	42.3	8.1	11.9	<1	<0.2	3	<10	<5	85	12.4	<10	19	11	<5
B012D	4	<0.5	0.07	1.32	3.74	0.02	0.08	0.77	16.9	0.25	268	32	1430	6.67	36	19	70.4	93.3	<3	190	15.1	22.5	<1	<0.2	<1	<10	<5	121	10.2	<10	8	3	<5
	<1	<0.5	0.07	1.45	4.38	0.02	0.1	0.81	18.2	0.22	277	28	1450	7.58	28	20	73.8	95.5	<3	197	16.1	23.5	<1	<0.2	<1	<10	<5	126	6	<10	13	<2	8
B019D	7	<0.5	0.09	1.36	3.91	0.02	0.09	0.81	17.6	0.23	246	31	1370	6.45	34	18	75.8	89.4	<3	180	15.9	24.3	<1	<0.2	<1	<10	<5	123	10.4	<10	8	<2	5
	<1	<0.5	0.1	1.49	4.4	0.02	0.11	0.84	18.3	0.18	237	27	1330	6.88	27	20	76	86.7	<3	192	15.7	23.1	<1	<0.2	<1	<10	<5	121	5.8	<10	12	<2	6
B020D	<1	<0.5	0.06	1.6	4.11	0.02	0.1	0.82	19.1	0.23	242	31	1290	6.35	37	21	86.1	85.6	<3	194	14	21.7	<1	<0.2	<1	<10	<5	83	8.4	<10	<5	<2	<5
	<1	<0.5	0.08	1.49	4.4	0.01	0.11	0.81	18.8	0.29	329	33	1240	7.95	29	24	78.2	96.6	<3	189	13.4	22.4	<1	0.2	<1	<10	<5	77	4.4	<10	9	<2	11
B021D	1	0.5	0.05	1.3	3.93	0.02	0.09	0.7	19	0.19	190	30	1440	5.89	32	18	70.5	82.2	<3	184	16.3	26.1	<1	<0.2	<1	<10	<5	142	9.2	<10	7	2	<5
	<1	<0.5	0.07	1.55	5.19	0.02	0.13	0.82	21.3	0.23	270	35	1400	7.74	30	25	79.6	94.6	<3	207	15.8	26	<1	<0.2	<1	<10	<5	127	5.5	<10	9	<2	9
B042D	1	<0.5	0.13	1.12	2.73	0.03	0.1	1.1	11.2	0.32	315	21	1050	5.79	30	14	53.1	86.8	<3	78.6	9.2	16.2	<1	<0.2	<1	<10	<5	48	7	<10	<5	<2	<5
	2	<0.5	0.13	1.1	2.8	0.03	0.1	1.09	10.2	0.27	317	19	1000	6.27	20	15	49.7	89.4	<3	73.2	8.9	15.6	<1	<0.2	<1	<10	<5	44	3.4	<10	7	<2	9
B059D	168	<0.5	0.02	0.42	0.76	<0.01	<0.01	0.12	5.7	0.86	895	88	1760	17.4	69	19	25.3	237	<3	8.8	2.6	6.2	<1	<0.2	9	<10	<5	17	15.2	<10	<5	6	8
	11	<0.5	0.04	0.39	1.03	<0.01	0.02	0.29	5.1	0.73	757	56	1510	18	34	19	18.5	186	<3	22.2	3.2	8.3	<1	0.2	<1	<10	<5	33	1.2	<10	<5	7	30
B075D	12	<0.5	0.06	0.26	1.22	0.07	0.03	1.34	4	0.2	213	20	1160	6.31	17	3	12.8	121	27	63.9	7.1	3.7	<1	0.2	1	<10	<5	61	8.2	<10	24	10	<5
	6	<0.5	0.05	0.29	1.52	0.05	0.04	1.28	3.9	0.1	145	9	1080	5.28	10	4	14.9	92.4	18	63.5	6.5	4.5	<1	0.2	<1	<10	<5	63	3.7	<10	25	8	5
B084D	5	<0.5	0.04	0.27	0.92	0.03	0.02	0.93	7	0.61	511	37	1540	12.1	38	6	14.3	213	22	45.2	6.3	7.4	<1	0.2	3	<10	<5	186	12.4	<10	62	5	<5
	1	<0.5	0.03	0.3	0.93	0.02	0.02	0.81	8	0.74	636	26	1870	18.5	27	11	15.4	238	16	38.2	5.9	9.2	<1	0.4	<1	<10	<5	160	2.7	<10	29	9	30
B102D	27	<0.5	0.03	0.42	0.92	<0.01	0.03	0.16	6.6	0.76	659	64	1630	13.2	52	15	28.4	225	<3	14.9	4.9	7.1	<1	0.6	5	<10	<5	30	11.4	<10	<5	9	<5
	7	<0.5	0.02	0.43	0.94	<0.01	0.03	0.16	6.1	0.65	616	43	1550	14.4	27	16	24.9	198	<3	14.2	4.6	8.6	<1	0.2	<1	<10	<5	32	2.2	<10	6	12	25
B108D	4	0.5	0.03	0.27	1.32	0.02	0.06	0.26	6.3	0.19	210	25	942	5.38	17	3	14.1	81.8	<3	28.9	10.4	7.6	<1	<0.2	<1	<10	<5	81	7.3	<10	<5	12	<5
	<1	<0.5	0.02	0.29	1.59	0.02	0.07	0.26	6.7	0.21	234	25	966	6.37	12	5	15.5	88.1	<3	27.3	10.9	11	<1	3.6	<1	<10	<5	85	5.6	<10	8	12	10
B116D	62	<0.5	0.05	0.85	3.04	0.02	0.07	1.6	12.7	0.25	334	51	1030	6.86	30	12	32.3	90.1	<3	95.8	13.2	15.9	<1	<0.2	1	<10	<5	97	9	<10	5	<2	<5
	2	<0.5	0.05	0.93	3.42	0.02	0.08	1.65	13.3	0.22	331	44	1030	7.63	21	15	35.2	84	<3	92.2	13.6	17.2	<1	<0.2	<1	<10	<5	99	5	<10	9	<2	8
C007D	3	<0.5	0.06	0.29	0.91	0.04	<0.01	0.46	3.2	0.79	692	59	1600	14.3	51	11	19.5	213	<3	27.7	3	5.5	<1	<0.2	6	<10	<5	41	12.6	<10	7	<2	<5
	2	<0.5	0.05	0.25	0.86	0.03	0.01	0.48	2.6	0.73	655	36	1310	13.8	25	13	14.9	171	<3	28.1	3	6.6	<1	0.4	<1	<10	<5	43	2.2	<10	6	4	27
C025D	2	<0.5	0.12	1.21	3.42	0.02	0.08	1.2	10.4	0.11	168	29	1030	4.67	23	12	41.8	70.7	<3	127	10.2	18.6	<1	<0.2	<1	<10	<5	109	7.6	<10	7	3	<5
dC025	<1	<0.5	0.1	1.21	3	0.02	0.1	1.15	9.9	0.11	189	21	1050	5.11	20	13	42	71.8	<3	124	11	18.5	<1	<0.2	<1	<10	<5	108	5.4	<10	<5	4	<5
C028D	5	<0.5	0.13	0.42	2.06	0.04	0.06	1.27	5	0.38	396	51	1210	7.27	30	11	19	113	<3	82.1	6.1	7.2	<1	<0.2	1	<10	<5	88	10.1	<10	7	6	<5
	<1	<0.5	0.13	0.44	2	0.03	0.07	1.26	4.8	0.36	411	64	1230	7.83	20	14	20.1	113	<3	79.5	6.6	8.4	<1	<0.2	<1	<10	<5	89	6.1	<10	9	6	12
C030D	2	<0.5	0.14	1.28	3.42	0.03	0.13	1.37	11.5	0.2	239	38	1160	5.4	29	19	55.5	78.5	<3	122	10	16.1	<1	<0.2	<1	<10	<5	90	8.2	<10	<5	<2	<5
	<1	<0.5	0.15	1.2	3.18	0.03	0.14	1.35	10.3	0.25	318	50	1090	6.58	25	21	53.5	87.6	<3	113	9.7	16.2	<1	0.2	<1	<10	<5	82	4.5	<10	9	<2	7
C056D	4	<0.5	0.14	0.3	1.23	0.05	0.03	0.76	3	0.31	305	70	750	6.77	21	6	12.1	110	<3	54.9	3.4	3.7	<1	<0.2	<1	<10	<5	36	6.6	<10	<5	<2	<5

Table A-8 Results of Analysis of Geochemical Survey Samples (Duplicates Samples)

Sample No.	Au	Be	Na	Mg	Al	P	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Sr	Y	Zr	Mo	Ag	Cd	Sn	Sb	Ba	La	W	Hg	Pb	Bi
	ppb	ppm	%	%	%	%	%	%	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	<1	<0.5	0.09	0.2	1.04	0.05	0.03	0.53	2.4	0.23	245	34	574	5.41	11	6	12	85.6	<3	39.9	3.3	5.9	<1	<0.2	<1	<10	<5	51	3.2	<10	5	<2	8
C060D	540	<0.5	0.15	0.41	1.82	0.03	0.02	0.92	5.2	1.06	869	105	1440	14.6	64	20	26.8	176	<3	88.6	3.3	5	<1	<0.2	7	<10	<5	58	13.4	<10	<5	<2	<5
	5	<0.5	0.2	0.34	2.33	0.03	0.03	1.21	4.7	0.72	656	70	1170	12	28	18	21.5	124	<3	119	4.6	8.6	<1	0.2	<1	<10	<5	102	3.1	<10	6	<2	23
C089D	25	<0.5	0.1	0.36	2.05	0.01	0.04	1.09	7.4	0.77	704	63	1410	11.6	51	16	24.9	155	<3	99.1	6	11.3	<1	<0.2	4	<10	<5	81	11.1	<10	16	5	<5
	5	0.8	0.08	0.39	1.74	<0.01	0.03	0.8	7.8	1.06	997	81	1520	18.5	43	26	24.4	199	<3	73.8	5.3	13.1	<1	<0.2	<1	<10	<5	57	2.5	<10	16	5	29
C099D	3	0.6	0.07	0.46	1.71	0.02	0.05	1.09	9	0.6	686	75	1520	11.4	42	14	29.7	198	13	82.9	9.2	6	<1	<0.2	4	<10	<5	53	11.2	<10	14	7	<5
	1	0.5	0.05	0.44	1.63	0.01	0.06	0.9	9.1	0.53	682	55	1430	13	26	16	26.5	187	10	75.8	9.8	7.8	<1	<0.2	<1	<10	<5	53	3.5	<10	18	5	13
C108D	1	0.6	0.03	0.47	1	<0.01	0.03	0.17	6.9	0.85	746	66	1770	14.8	60	17	37.9	242	<3	15.3	4.5	6.9	<1	<0.2	6	<10	<5	31	14.5	<10	6	11	<5
	<1	<0.5	0.03	0.58	1.63	0.02	0.1	0.4	8.5	0.22	342	42	1280	7.42	17	9	22.8	120	3	47	11.9	7.7	<1	<0.2	<1	<10	<5	68	4.8	<10	17	10	<5
C123D	3	<0.5	0.08	0.22	1.86	0.02	0.02	7.05	5.4	0.06	180	47	3290	3.63	29	8	22	28.8	4	107	15	13.3	<1	<0.2	<1	<10	<5	574	13.4	<10	8	12	7
	<1	<0.5	0.09	0.21	1.82	0.02	0.02	6.87	5.4	0.08	215	36	3410	4.05	27	8	21.7	30.8	10	113	17.2	12	<1	0.4	<1	<10	<5	586	12	<10	9	10	<5
C129D	1	0.5	0.06	0.61	3.2	0.01	0.05	1.75	14.1	0.02	268	16	2570	5.18	34	6	40.3	37.2	<3	105	14.9	16.5	<1	<0.2	<1	<10	<5	486	8.3	<10	8	8	<5
	<1	<0.5	0.09	0.21	1.82	0.02	0.02	6.87	5.4	0.08	215	36	3410	4.05	27	8	21.7	30.8	10	113	17.2	12	<1	0.4	<1	<10	<5	586	12	<10	14	10	<5
C133D	2	0.5	0.14	0.45	3.16	0.03	0.06	3.72	9.6	0.3	281	38	1280	6.19	27	7	22.7	127	<3	155	15.6	18.4	<1	<0.2	1	<10	<5	173	10.3	<10	56	6	<5
	2	0.5	0.08	0.33	1.95	0.03	0.04	2.76	7.6	0.32	307	30	1130	6	18	9	16.8	103	<3	106	14.4	15.8	<1	<0.2	<1	<10	<5	149	6.1	<10	13	11	5
D050D	2	<0.5	0.1	0.76	2.39	0.02	0.05	0.84	9.9	0.7	666	71	1810	10.7	46	16	28.2	178	<3	93.5	10.4	8.6	<1	<0.2	3	<10	<5	88	12.8	<10	18	3	<5
	<1	<0.5	0.07	0.77	2.21	0.02	0.05	0.83	8.4	0.47	448	46	1490	8.88	21	19	25.3	123	<3	87.9	10.3	9.6	<1	0.2	<1	<10	<5	88	5.1	<10	6	3	14
D076D	5	<0.5	0.04	0.49	1.38	0.01	0.05	0.26	7.5	0.76	655	65	1580	12.1	50	15	32.1	193	<3	25.5	5.9	8.5	<1	<0.2	4	<10	<5	47	12.8	<10	9	6	<5
	7	<0.5	0.04	0.55	1.65	0.01	0.07	0.37	7.4	0.54	472	45	1390	10.2	23	20	33.6	151	<3	35	7	9.5	<1	0.3	<1	<10	<5	62	3.5	<10	8	7	18
D103D	1	<0.5	0.05	0.51	1.57	0.02	0.05	0.55	9.2	0.56	612	96	1490	10.6	39	13	30.3	180	<3	42.5	10.6	7.8	<1	<0.2	3	<10	<5	51	11.4	<10	22	8	<5
	<1	<0.5	0.05	0.64	2.15	0.02	0.08	0.7	9.9	0.27	297	57	1380	8.16	19	10	30.3	113	6	59	12.7	9.5	<1	<0.2	<1	<10	<5	72	4.1	<10	16	9	8
D121D	4	0.5	0.05	0.61	1.97	0.02	0.09	0.26	7.8	0.14	238	52	1010	6.25	19	5	33.2	85.4	<3	22.9	8.2	3.8	<1	<0.2	<1	<10	<5	63	8.8	<10	9	6	5
	<1	<0.5	0.02	0.65	1.35	0.02	0.07	0.23	6.2	0.14	216	28	972	7.15	13	7	37.1	76.9	<3	20.8	7.5	3.4	<1	<0.2	<1	<10	<5	56	4.2	<10	8	15	<5
D150D	<1	0.5	0.04	0.55	1.41	0.02	0.05	0.31	8.9	0.62	730	72	1560	12	44	12	47.5	208	<3	25.2	8.1	9.2	<1	<0.2	4	<10	<5	52	12.3	<10	9	25	<5
	2	0.6	0.02	0.54	1.38	0.01	0.05	0.29	9.3	0.73	792	67	1670	16.5	34	19	49.4	249	<3	22	8.2	11.8	<1	0.3	<1	<10	<5	43	2.6	<10	7	31	21
E001D	<1	<0.5	0.08	0.34	1.96	0.01	0.08	0.56	7	0.33	288	28	1110	6.17	24	6	18.4	105	<3	64.5	8.5	16.4	<1	0.2	<1	<10	<5	83	9.4	<10	14	4	<5
	4	0.5	0.06	0.34	1.96	0.01	0.09	0.51	7.9	0.21	229	22	1150	5.58	15	6	21.5	85.2	<3	67.1	10.1	19.3	<1	<0.2	<1	<10	<5	109	5.8	<10	14	7	<1
E072D	61	0.6	0.04	0.51	1.52	0.02	0.05	0.42	7.4	0.29	419	48	905	7.88	26	9	41.1	83.8	<3	35	8.6	5.4	<1	<0.2	2	<10	<5	31	8.3	<10	10	5	<5
	3	<0.5	0.02	0.54	1.54	0.02	0.06	0.38	7.8	0.26	437	44	944	8.54	19	12	45.6	78.2	4	34.9	9.9	7.3	<1	<0.2	<1	<10	<5	36	3.3	<10	11	8	<1
E086D	<1	<0.5	0.03	0.32	1.21	0.02	0.05	0.22	6.8	0.66	578	35	1620	11.9	40	8	18.7	153	<3	25.5	7.8	13.7	<1	0.2	4	<10	<5	55	12.2	<10	16	4	<5
	3	0.6	0.01	0.27	0.99	0.01	0.05	0.19	5.8	0.51	474	22	1370	11.2	19	9	16.9	128	<3	22.6	7.4	14.1	<1	<0.2	<1	<10	<5	51	3.2	<10	13	5	7
E132D	2	<0.5	0.06	0.47	2.06	0.02	0.04	0.47	8.7	0.5	447	29	1440	8.68	36	8	22	126	<3	44.9	10	20.3	<1	<0.2	2	<10	<5	152	10.9	<10	40	6	<5
	2	0.7	0.04	0.47	2.1	0.02	0.05	0.49	9.1	0.43	385	19	1530	8.2	23	9	24.1	102	<3	48.7	11.3	24.5	<1	<0.2	<1	<10	<5	183	5.6	<10	37	6	6
F005D	<1	<0.5	0.07	1.21	2.14	0.03	0.11	0.57	8.6	0.12	195	21	1020	4.88	20	7	31.7	138	<3	42.3	8	6.9	<1	<0.2	<1	<10	<5	70	7.1	<10	6	7	<5
	1	<0.5	0.06	1.36	2.44	0.03	0.13	0.56	9.4	0.08	166	22	927	4.94	15	9	30.9	132	<3	40.2	8.6	7.4	<1	<0.2	<1	<10	<5	70	4.1	<10	<5	8	<5
F006D	<1	<0.5	0.08	0.96	2.14	0.03	0.09	0.59	8.3	0.28	325	32	1160	6.88	28	9	51.1	139	<3	53	6.8	6.3	<1	<0.2	1	<10	<5	58	7.9	<10	7	6	<5
	1	<0.5	0.08	0.9	2.04	0.03	0.1	0.5	7.9	0.31	356	36	1040	8.3	20	13	48.3	143	<3	43.2	6.3	6.3	<1	<0.2	<1	<10	<5	48	3	<10	<5	6	10
F060D	<1	0.6	0.06	0.48	2	0.02	0.06	0.87	8.8	0.47	588	57	1710	11.1	37	13	39.8	179	<3	66.9	9	9.3	<1	<0.2	3	<10	<5	56	12.8	<10	16	7	<5
	1	<0.5	0.08	0.9	2.04	0.03	0.1	0.5	7.9	0.31	356	36	1040	8.3	20	13	48.3	143	<3	43.2	6.3	6.3	<1	<0.2	<1	<10	<5	48	3	<10	10	6	10

Table A-9 Results of PIMA Spectometer Measurements (1/3)

SAMPLE	MINERAL_1	MINERAL_2	MINERAL_3	MINERAL_4	MINERAL_5	MINERAL_6	MINERAL_7	MINERAL_8	MINERAL_9	MINERAL_10
A002X_a	Illite	IntChoritete								
A003X_a	Montmorillonite									
A004O_a	Muscovite	Illite	Jarosite	Palygorskite						
A005O_a	Illite		Muscovite							
A006I_a	Illite	Na_Alunite	Gypsum	Halloysite	Montmorillonite	Kaolinite				
A007X_a	IntChoritete	Illite								
A008O_a	Halloysite	Montmorillonite								
A009I_a	Illite	Phengite	Muscovite	Nontronite	Halloysit	Montmorillonite				
A010S_a	IntChoritete		Halloysite							
A011TX_a										
A014TX_a	Illite	IntChoritete	Halloysite	MgChlorite						
A015TX_a	Illite	Brucite	Ankerite							
A017T_a	Montmorillonite	Halloysite								
A018X_a	Muscovite	Halloysite	Montmorillonite							
A020X_a	Jarosite	Illite								
A021AO_a	Illite		Ankerite	Montmorillonite	Halloysit					
A022AO_a	Ankerite		Phlogopite2	K_Alunite						
A023T_a	Muscovite	Ankerite	Illite	IntChoritete						
A024X_a	Kaolinite	Epidote	Halloysite							
A025T_a	Palygorskite	Epidote								
A026AO_a	IntChoritete	Illite	FeChloriteee	Brucite						
A027AO_a	IntChoritete	Palygorskite	Halloysite	Illite						
A028X_a	Illite	Epidote	IntChoritete							
A029AO_a	IntChoritete	Halloysite	Ankerite	Gypsum	Illite					
A030A_a	Illite	Ankerite	Jarosite	Halloysite	Montmorillonite	Gypsum				
A031X_a	Muscovite	Montmorillonite	Illite							
A032_a	Kaolinite	Pyrophillite	Dickite							
A033A_a	Illite		IntChoritete							
A034X_a	Paragonite	Dickite	Diaspore	Kaolinite						
A035X_a	Palygorskite	Nontronite								
A038X_b	Montmorillonite	Biotite	Palygorskite							
A050I_a	Illite	Ankerite	Kaolinite							
A051A_a										
A052T_a										
A053X_a	Montmorillonite	Paragonite	Illite							
A056_a	Illite	Palygorskite	Montmorillonite	Paragonite	IntChoritete	FeChloritee				
A058X_a	Muscovite	Kaolinite	Montmorillonite	Kaolinite						
A059X_a	Muscovite		Illite	Halloysite	Montmorillonite					
A060PA_a	Montmorillonite		Illite	Jarosite						
A062X_a	Illite		Paragonite							
A064A_a	Palygorskite		Kaolinite	Halloysite	Gypsum	Jarosite	Illite	Montmorillonite		
A066_a	Illite	Ankerite	Muscovite	Brucite	IntChorite					
A067T_a	FeChloriteee		Halloysite	Epidote	IntChorite	Kaolinite	Illite			
A068A_a	Halloysite	Epidote	IntChoritete	Halloysite	Kaolinite	Illite				
A069A_a	IntChoritete	Illite								
A070T_a	IntChoritete		Illite	Calcite						
A072A_a			Kaolinite	Illite	Jarosite	Montmorillonite				
A073T_a	IntChoritete	Illite								
A074A_a	Illite	Gypsum	Ankerite	Kaolinite						
A075A_a	Kaolinite		Illite	Muscovite	Jarosite					
A076T_a	Illite		Muscovite							
A077X_a	Muscovite									
A078A_a	Epidote	Halloysite	Montmorillonite							
A079A_a	Illite	Epidote	IntChoritete	Brucite	Halloysit	Kaolinite				
A080X_a	Muscovite	Montmorillonite	Illite							
A081X_a	IntChoritete									
A082A_a	Epidote	Halloysite								
A083A_a	IntChoritete									
A084A_a	Epidote		Illite							
A085X_a	Muscovite	Palygorskite	IntChoritete	Illite						
A086A_a	Illite	Gypsum	Palygorskite		Halloysit					
A087A_a	Illite	Halloysite	Nontronite	Montmorillonite	Muscovite					
A090X_a										
A091_a	Paragonite	Montmorillonite								
A092A_a	Illite		FeChloritaee							
A093A_a	Muscovite	Illite	Kaolinite							
A094_a	Muscovite	Jarosite	Illite							
A095A_a	Kaolinite	Montmorillonite	Illite		Jarosite	Halloysit				
A096P_a	Illite		Kaolinite	Gypsum						
A097X_a										
A098A_a	Paragonite		Illite	Kaolinite	Montmorillonite					
A099A_a	Paragonite	Montmorillonite	Illite	Kaolinite	Muscovite					
A100A_a	Kaolinite	Illite	Gypsum	Kaolinite	Muscovite					
A101A_a	Muscovite	Montmorillonite	Kaolinite	Dickite	K_Alunite					
A102A_a	Muscovite	Ankerite	Halloysite	Illite	Gypsum					
A103A_a	Illite	Kaolinite	Jarosite	Halloysite	Paragonit					
A104S_a	Muscovite	Brucite	Epidote							
A105A_a	Muscovite	Kaolinite	Montmorillonite							
A106X_a	Muscovite	Montmorillonite	Palygorskite							
A109S_a										
A110X_a	Paragonite	Montmorillonite	Illite							
A111A_a	Halloysite	Gypsum	Kaolinite	Illite						
A112A_a	Kaolinite	Illite	Gypsum							
A117P_a	Halloysite	Palygorskite	Nontronite							
A118X_a	Halloysite									
A119A_a		Montmorillonite	Palygorskite							
A120A_a	Muscovite	Illite		Jarosite						
A121A_a	Illite	Kaolinite	Muscovite							
A121A_b	Kaolinite	Illite	Halloysite	Montmorillonite						
A122P_a		Muscovite	Montmorillonite	Kaolinite						
A123A_a	Montmorillonite	Kaolinite	Halloysite	Muscovite	Gypsum					
A124A_a	Illite	Palygorskite	Montmorillonite	Muscovite	Jarosite					
A125A_a	Illite	Ankerite	Muscovite	Jarosite	Opal	NH4_Aluni	FeChloritee			
A126A_a	Illite	Gypsum	Muscovite	Jarosite						
B001P_a	Montmorillonite	Palygorskite								
B003T_a										
B005T_a										
B006A_a	Halloysite		Kaolinite							
B007A_a	Halloysite		Kaolinite							

Table A-9 Results of PIMA Spectometer Measurements (2/3)

SAMPLE	MINERAL_1	MINERAL_2	MINERAL_3	MINERAL_4	MINERAL_5	MINERAL_6	MINERAL_7	MINERAL_8	MINERAL_9	MINERAL_10
B009T_a	Palygorskite		Nontronite							
B010_a	Opal	Palygorskite	Illite	Halloysite						
B011X_a			Montmorillonite	Dickite						
B012A_a		Paragonite	Gypsum							
B013A_a		Muscovite	Jarosite							
B015_a										
B016X_a	Montmorillonite		Kaolinite							
B017T_a	Montmorillonite	Paragonite	Halloysite	Dickite						
B019A_a	Illite	Gypsum	Kaolinite							
B020P_a	Illite	Jarosite								
B021A_a	Illite	Phengite	Muscovite		Ankerite	Jarosite				
B022T_a	IntChoritete		Illite	Epidote	Halloysit					
B023_a	Kaolinite	Gypsum	Ankerite	Halloysite	Illite					
B024A_a	Muscovite	Kaolinite	Illite	Phengite						
B026A_a	Kaolinite									
C001S_a	Kaolinite		Na_Alunite	Halloysite						
C002A_a	Illite	Gypsum	Paragonite	Montmorillonite	Diaspore					
C003A_a	Na_Alunite	Kaolinite	Dickite							
C004a_a	Dickite		Kaolinite							
C006A_a	Dickite	Halloysite	Montmorillonite	Kaolinite						
C007S_a	Montmorillonite	Palygorskite								
C008A_a	Kaolinite	Pyrophillite	Diaspore	Na_Alunite						
C009a_a	Dickite		Gypsum	Kaolinite	Pyrophill	Diaspore				
C011X_a	Halloysite	Montmorillonite								
C013T_a										
C014T_a	Illite	Gypsum	Palygorskite							
C015_a										
C016_a	IntChoritete									
C017_a	Illite		Halloysite							
C018_a	Illite		Jarosite							
C019_a	Muscovite	IntChoritete								
C020_a	Muscovite	Montmorillonite								
C021X_a	Muscovite	Halloysite								
C023S_a										
C024A_a			Illite	Gypsum						
C025S_a										
C026S_a	Calcite	Illite	Ankerite							
C027A_a	Illite	Jarosite	Halloysite	Gypsum	Muscovite					
C028S_a	IntChoritete	Palygorskite	Montmorillonite	Epidote						
C029A_a	Illite	Gypsum	Muscovite	Paragonite	Halloysit					
C091D_a	Illite		Gypsum							
D001_a	Illite	Gypsum								
D002_a	Montmorillonite	Kaolinite								
D003S_a	Palygorskite	Illite	Jarosite							
D004A_a	Montmorillonite	Kaolinite	Illite	Jarosite						
D005S_a	Halloysite	Opal	Gypsum							
D006P_a	Montmorillonite	Halloysite								
D009R_a	Paragonite	Montmorillonite	Illite	Jarosite						
D012S_a	IntChoritete	Illite	Epidote							
D014X_a	Kaolinite									
D019X_a	Kaolinite		Illite							
D020X_a	Kaolinite		Muscovite	Montmorillonite						
D021S_a	Calcite	Montmorillonite	Ankerite							
D022RS_a	Montmorillonite									
D023S_a	Kaolinite	Calcite	Ankerite							
D024X_a	Halloysite									
D026S_a										
D029T_a	Illite	Halloysite	Muscovite	IntChoritete						
D030_a	IntChoritete		Epidote							
D031P_a	IntChoritete	Illite								
D032X_a	Illite									
D033S_a	IntChoritete	Illite	Phengite	Halloysite						
D034S_a	Montmorillonite									
E001X_a	Montmorillonite		Palygorskite	Muscovite	Halloysit					
E002S_a										
E004S_a	Illite	Halloysite								
E005X_a	Gypsum		Illite	Halloysite						
E006A_a	Kaolinite	Illite	Muscovite	Montmorillonite						
E007P_a	Montmorillonite	Kaolinite	Illite	Halloysite						
E008X_a	Muscovite	Palygorskite	Montmorillonite							
E009X_a	Montmorillonite	Jarosite	Muscovite	Illite						
E010A_a	IntChoritete	Halloysite	Illite	Palygorskite						
E011X_a	Halloysite	Epidote	Illite		Muscovite	IntChorite				
E012P_a	Illite		Palygorskite	Epidote						
E013A_a	Montmorillonite	Kaolinite	Illite	Gypsum						
E014X_a	Palygorskite	Halloysite	Illite	Gypsum						
E016A_a	Diaspore	Jarosite	Montmorillonite							
E017X_a	Montmorillonite	Jarosite	Illite	Kaolinite						
E018P_a	Jarosite	Gypsum	Montmorillonite							
E019X_a			Illite	Gypsum						
E020A_a	Kaolinite	Illite								
E021X_a	Kaolinite	Illite								
E022T_a	Muscovite	Kaolinite	Illite							
E023R_a	Muscovite	Halloysite	Kaolinite	Illite						
E024X_a	Kaolinite	Halloysite								
E025A_a	Kaolinite		Halloysite							
E026A_a										
E027X_a	IntChoritete									
E028P_a	IntChoritete		Halloysite							
E032A_a	Illite	Calcite	IntChoritete							
E033A_a	Illite									
E033A_b	Illite		IntChoritete							
E034X_a	Illite	Dickite	Kaolinite	Illite						
E035A_a	Illite		IntChoritete							
E113A_a	Halloysite	Paragonite	Illite	Kaolinite	Jarosite					
E114X_a	Muscovite		Montmorillonite							
E115R_a	IntChoritete	Illite	Halloysite							
E116A_a	Montmorillonite		Paragonite							
F001F_a			Illite	Ankerite	Montmorillonite	Palygorsk	Halloysit	Jarosite	Gypsum	

Table A-9 Results of PIMA Spectometer Measurements (3/3)

SAMPLE	MINERAL_1	MINERAL_2	MINERAL_3	MINERAL_4	MINERAL_5	MINERAL_6	MINERAL_7	MINERAL_8	MINERAL_9	MINERAL_10
F002F_a	Jarosite	Palygorskite	Illite	Opal	Gypsum	Halloysit				
F003O_a	Illite	Halloysite	IntChoritete	Montmorillonite	Kaolinite					
F004O_a	Illite	Palygorskite	Gypsum	Biotite	Ankerite					
F004O_b	Illite									
F005O_a			Illite	Jarosite	Halloysit	Illite	Muscovite	Montmorillonite	Kaolinite	Pyrophill
F006O_a	IntChoritete	Halloysite	Muscovite	Jarosite	Illite					
F007O_a	Montmorillonite	Kaolinite	Palygorskite	Illite	Halloysit	Nontronit	IntChorite			
F008O_a	Illite		Muscovite	Opal	Gypsum					
F009O_a	Illite	Na_Alunite	Gypsum	Opal	Paragonit	Montmorillonite				
F010O_a			Illite							
F011S_a	Illite	Gypsum								
F012O_a	IntChoritete	Palygorskite	Kaolinite	Montmorillonite	Gypsum					
F014O_a	Montmorillonite	Paragonite	Illite	Gypsum						
F015O_a	Illite	K_Alunite								
F016O_a	Illite									
F018A_a	Na_Alunite									
F022X_a	IntChoritete	Palygorskite	Halloysite	Epidote						
F023X_a	Biotite	Ankerite	Halloysite	Gypsum						
F024X_a	Illite	IntChoritete	Muscovite	Ankerite						
F026A_a	Halloysite	Kaolinite	Montmorillonite							
F027A_a	Kaolinite	Halloysite	Na_Alunite	Illite						
F028S_a			Montmorillonite	Gypsum						

Table－10 List of Existing Data

Classification	Data
Maps	(1) Geological Research and Development Centre, 1992,Geological Map of the Pacitan, Quadrangle,Jawa.1:100,000. (2) Geological Research and Development Centre, 1992,Geological Map of the Tulungagung Quadrangle, Jawa.1:100,000. (3) Geological Research and Development Centre, 1992,Geological Map of the Madiun Quadrangel, Jawa.1:100,000. (4) Geological Research and Development Centre, 1992,Geological Map of the Probolinggo, Jawa.1:100,000. (5) Geological Research and Development Centre, 1992,Geological Map of the Kediri, Jawa.1:100,000. (6) Geological Research and Development Centre, 1992,Geological Map of the Surakarta-Giritonro Quadrangle, Jawa.1:100,000. (7) Geological Research and Development Centre, 1992,Geological Map of the Lumajang Quadrangle, Jawa.1:100,000. (8) Geological Research and Development Centre, 1992,Geological Map of the Jember Quadrangle, Jawa.1:100,000 (9) Geological Research and Development Centre, 1992,Geological Map of the Malang Quadrangle, Jawa.1:100,000. (10) Geological Research and Development Centre, 1992,Geological Map of the Turen Quadrangle, Jawa.1:100,000. (11) Geological Research and Development Centre, 1992,Geological Map of the Blitar Quadrangle, Jawa.1:100,000. (12) DMR, 1994,Metallic Minerals Distribution Map of East Java Province. 1:500,000. (13) Geological Research and Development Centre, 1998,Geological Map of Indonesia, Surabaya sheet. 1:1,000,000.
DMRI Data	(1) DMR, 2000, Review on the Geology and Mineralization in the Block A and B Prospects, Trenggalek District, East Java. (2) DMR, 2000, Resume of the Exploration Result Conducted by Third Party Covering -East Java, Indonesia (3) DMR, 1995/1996, Report on the Precious Metallic Mineral in Selogiri Area, Wonogiri Regency, Central Java Province, by Danny Z. Herman. (4) DMR, 1999/2000, Report on the Precious and Base Metal Exploration in the Nglanggreran-Baturangung and its Surrounding Area, Gunungkidul Regency, Yogyakarta, by Sahat Simanjuntak. (5) Report on the Reconnaissance Survey of Metallic Mineral In G. Bunkus-G.Gede, G.Gembes Area, Ponorogo Regency, East Java Regency, Ulkifli MD,2000. (6) DMR, 1993/19994,Report on the Cooperation Work of Base Metal Exploration in Pacitan- Ponorogo Regency, East Java, Phase III, by Tatto Sudharto. (7) Korea Mining Promotion Corporation, 19993, Report on the Joint Mineral Exploration in the Pacitan-Ponorogo Area, East Java, The Republic of Indonesia, Phase III. (8) PT. Everlastika Mitra,1997,Work Program and Estimated Budgeting of Exploration KP No. KW96JLP009. (9) PT. Royal Indotama, 1997,Thirdly September-November,1996 Report of KP.No. KW96JPL111 in Gunug Klitik Area, Malang Regency, East Java Province. (10) PT. Nomisantindo, 1997, Work Programme and Estimated Budget of Exploration KP. No. JLP112. (11) PT. Miracle, 1999, Final Report of KP. No. KW96AGP130, Pulung and Soko Subdistrict Ponorogo Regency, East Java Province. (12) Directrate of Mining Supervision, 1999, Report on the Reserve Evaluation Activity of Small Scale Gold Mining in Kebonsari Area, Punung Sub-district, Pacitan Regency, East Java Province. (12) Directrate of Mining Supervision, 1995,Feasibility Study of the Primary Gold

	Deposits in DU.312/Jateng Area of Kud.Selogiri.
Published Data	(1) Baski,A.,Su,amgara,D.A., Sinambela, D., 1994, The Gunung Pongkor Gold Silver Deposit, West Java, Indonesia, J.of Geochemical Exploration, 50,p.371-391. (2) Clode,C.,Proffett,J.,Mitchell,P. and Munajat,I.,1999,Relationships of Intrusion, Wall-Rock Alteration and Mineralisation in the Batu Hijau Copper-Gold Porphyry Deposit, PACRIM'99,p.485-498. (3) Baeber,A.J. and Wiryoaujono(ed), 1979, The Geology and Tectonics of Eastern Indonesia. Proceedings of the CCOP-IOC SEATAR Working Group Meeting, Bandung, Indonesia,415pp.

Table A-11 Major Mineral Occurrences Based on the Existing Data (1/2)

No.	Location, Tenements, etc	Mineral	Longtitude (° ' ")			Latitude (° ' ")			Mode of occurrence	Alteration	Host rock	Mineral Resources, assay data		Previous work
1	Kawedanalan Tegalombo	Cu	111	10	40	7	59	30	quartz vein		dacite	hypothetic		
2	K. Ngepoh, Kec. Tegalombo	Cu	111	12	5	8	3	5	quartz vein		dacite	hypothetic		
3	Petung Sinarang, Kec. Tegalombo	Cu	111	15	1	8	4	1	quartz vein		andesite	hypothetic		
4	Brungkah, Kec. Ngadirejo, Kab. Pacitan	Pb	111	16	30	8	11	30	quartz vein	kaoline	andesite	hypothetic	14.5%Pb, 3.63%Cu, 16.7%Zn, 1.2g/tAu, 120g/tAg	
5	Kec. Tegalombo & Kec. Legok	Cu	111	17	20	8	2	40	quartz vein		dacite	hypothetic		
6	Kashian, Kec. Tegalombo	Cu	111	18	1	8	5	15	quartz vein		dacite	measured	10,000t@4-5%Cu, 25g/tAu	In 1910s 120tons of 15%Cu 25g/tAu ore were mined
7	PT. Andriat Trading Eng.	Au	111	18	2	8	9	5	vein		andsitic breccia, tuff		5g/tAu, 41g/tAu in tunnel	
8	Kec. Tegalombo & Kec. Bandar, Kab. Pacitan	Mn	111	19	0	7	55	45				measured	18,315t@3%Mn	
9	Kec. Tegalambo	Cu	111	19	10	8	1	11	quartz vein		dacite	hypothetic		
10	Dawung Jemplo, G. Ngunel, Kledung & Bari, Kec. Tegalombo	Mn	111	19	16	8	2	50	lens between limestne and vocanic rocks			hypothetic	58.26%Mn	
11	Kali Pego. Kec. Tegalombo	Cu	111	22	10	8	2	30	Along the footwall of andesite dyke		andesite andesite breccia	hypothetic		
12	Kec. Slaung & Tegalombo	Mn	111	22	10	8	2	40	lens between limestne and vocanic rocks			hypothetic		
13	G. Domasan, Slaung	Cu	111	24	15	8	0	35	vein		andesite breccia	measured	lengh130m X width 1m, 1ton?@4-6%Cu	
14	Kec. Slung (Klumpit, Banyumuntah, G. Kembar, G. Palar, Soka, Cikuk Barat	Mn	111	25	20	8	2	10	supergene enrichment at the contact between limestone and tuff			hypothetic	49-59%Mn	
15	Kerpu, Truning, Kec. Slaung	Zn	111	26	25	8	0	25				hypothetic	6g/tAu, 2g/tAg, 1-2%Zn	
16	Tuking, Jimpas & Salak, Kec. Slaung	Cu	111	26	5	8	2	0	vein			hypothetic	Tuking:1.5cm width, 18%Cu Jimpas: 200cm width	
17	Sri Haryati/C.V. Asean Mining D.U. 592/Jatim, Kab. Tulungagung	Mn	111	57	1	8	10	6	irregular pockets in limestone				45,000t47.9%Mn	
18	Kec. Panggul, Kab. Trengagalek	Mn	111	27	33	8	12	15	lens between limestone and tuff			hypothetic		
19	K. Gondang, near teluk Panggul	Ag	111	28	15	8	17	5	quartz vein		dacite	hypothetic		
20	Ke. Panggul	Mn	111	29	2	8	14	1	lens between limestone and tuff			hypothetic		
21	Blimbing, Kec. Pulung, Kab. Ponorogo	Mn	111	37	10	7	50	46	supergene enrichment at the contact between limestone and tuff			hypothetic	59.52%Mn	
22	K. Kidang, Ds. Besuki, Kec. Menjangan	Ag	111	35	12	8	15	40	quartz vein		dacite	hypothetic	6.6g/tAg 7.6g/tAg	
23	Pulungan, Kec. Ponorogo, Kab. Ponorogo	Cu	111	38	40	7	56	25	quartz vein		dacite	hypothetic		
24	Pulungan, Kec. Ponorogo, Kab. Ponorogo	Cu	111	41	40	7	54	50	quartz vein		dacite	hypothetic		
25	Karangan, Kec. Trenggalek	Mn	111	40	31	8	0	25	supergene enrichment at the contact between limestone and tuff			hypothetic		
26	G. Paras lempung, Dandar & Belik	Mn	111	42	1	8	8	0	supergene enrichment at the contact between limestone and tuff			hypothetic	46-60%Mn	mined
27	Kec. Kampak (Benda), Kab. Trenggalek	Mn	111	42	24	8	9	25	lens between limestone and tuff			hypothetic		
28	Ampelgading, south of Kab. Trengglek	Mn	111	43	11	8	15	30	supergene enrichment at the contact between limestone and tuff			hypothetic	35.68%Mn	
29	G. Kuncung, G. Gebang, G. Tumpak, Telor, Serut, Tumpak Gumawang, G. Prongos & Belik	Mn	111	46	1	8	6	32	supergene enrichment at the contact between limestone and tuff				47-60%Mn	mined
30	Kec. Bandung, Kab. Trenggalek	Mn	111	46	30	8	7	50	supergene enrichment at the contact between limestone and tuff			hypothetic		
31	Ny Mimik Sujatmi/C.V. Patra Galih D.U. 575/Jatim, 2,000ha, Trengglek & Tulungagung	Mn	111	48	24	8	14	32	contact between limestone and tuff					testpit:215t@84%MnO2
32	Ds. Popoh & perigi, pantai, selatan/Turulungangung	Ti	111	49	52	8	14	10	mineral sand			indicated	1,100t@42%Fe, 12.5%TiO2	
33	Ds. Ngipik, Klumpit & Kemini, Kec. Campurdarat	Fe	111	54	31	8	11	5	laterite				20cm thickness	
34	Kec Sukorejo & Tenggong, Kab. Tulungagung	Mn	112	2	1	8	8	37	contact between limestone and tuff			indicated hypothetic	Sukorejo:500t, 41.43%Mn Tenggong: 34.24%Mn	
35	Kp. Beji, Kec. Doho-Wlingi	Fe	112	6	1	8	11	42	manganese laterite			indicated	34t, 6,800m^2, 4m thickness?	4 t mined, 800m^2

Table A-11 Major Mineral Occurrences Based on the Existing Data (2/2)

No.	Location, Tenements, etc	Mineral	Longtitude (° ' ")	Latitude (° ' ")	Mode of occurrence	Alteration	Host rock	Mineral Resources, assay data		Previous work
36	Kec. Rejotangan, G. Cemenung	Mn	112 6 45	8 6 52	lens contact between limestone and andesite			indicated	2,000t@65-70%Mn	
37	G. Jimbe, G. Puncukasam, Wingi	Mn	112 9 51	8 9 40	lens contact between limestone and tuff			measured	22,000t 5.6-6.4%Mn, 0.5m width X 1,000m length X 10m thickness	
38	Sri Mulungsih DU.568/Jatim, 300ha	Fe	112 13 3	8 20 2	Iron sand (placer)				0.5-1.5m thickness, 50-53%Fe	
39	Kec. Tambakrejo & Kec. Wlingi	Mn	112 22 15	8 5 32	lens between limestone and andesite			indicated	2,000t@65-70%Mn	
40	Desa Kalirejo, Kec. Donomulyo	Mn	112 50 40	8 17 5	lens between limestone and tuff			measured indicated	25,445t@79-90%Mn 42,700t@79-90%Mn	
B1	Selogiri	Au	Kali Puru, Regency of Wonogiri, Central Java		quartz vein (3 main vein), 5-40cm wide @ 500m long. : cp , gn, sp vein	silicification ardillization	andesitic tuff. microdiorite	measured: indicated: inferred:	7 kt @ 6.5-12.5g/tAu 6 kt @ 3.6-6.75g/tAu 17 kt @ 5.4-20.8g/tAu	shallow drilling, test pitting & tunnelling
B2	G. Gebang	Mn	G. Gebang & G. Kuncung, Gandusari sub-district Tulung Agung Regency, East Java		fracure filling, MnO2 with calcite quartz vein		limestone	measured	300 kt@16-77%	
B3	Kebonsari	Au	Kebonsari, Punung sub-district, Pacitan Regency		Quarz stockwork and 25cm wide with cp, gn, sp		dacite-andesite breccia		206kgAu (max 3.3g/tAu)	testpit, trench, 5 drilling 820m in total
B4	Putungsinarang & Brungkah	Au	Putungsinarang & Brungkah, Pacitan Regency		quatz vein 1mm-15cm wide with py, sp, hematite	silicification propylitization	andsitic lava, breccia, tuff		Au<0.01g/t	Rock sampling
B5	Kashian, Kec. Tegalombo	Au	(same area with No. 5)		Cu-Au porphyry type	skarn & epithermal	andesite breccia		Drillhole:13.5m@1.16%Cu 0.1-0.4g/tAu	1991-1994 7 holes 1000m 1996-1998:5 holes 499m
B6	Gunung Mas	Au	Gunung Mas, Jatiroto subdistrict, Wonogiri Reger		Quarz stockwork and veins	silicification argillization	andesite-basalt	Possible resources	5,625kt @ 1.89g/tAu	Tunnelling Drilling 9holes 492m in total
B7	Pulung	Au	Pulung and Soko subsisrict Ponorogo Regency		quartz vein and veinlets	silicification argillization	andesite lava, tuff		4-35cm wide, 0.1-2.89g/tAu max 87g/tAg	Trenching
B8	Malang (4km2)	Au	Regency of Malang		Float of vuggy silica	silicification argillization	andesite		<0.01g/tAu	Rock sampling (69pcs)
B9	Malang (19.91km2)	Au	Regency of Blitar and Malang		quartz stockwork	silicification	ryolite, tuff and limestone		pyrite breccia vein 1-5cm wide 0.18g/tAu	Rock sampling (215pcs)
B10	G. Nyamil and G. Gede	Au	Lodaya subdistrict, Blitar Regency		Sulfide mineralization		ryolite lava		0.01-0.18g/tAu	Rock sampling (369pcs)
B11	Wonogiri-Jember	Au	Central Java-EastJava (10,320km2)		quartz vein	silicification argillization	limestone, agglomerate, andesite		Rock sampling K. Benig Hulu :410-510ppbAu G. Kendil:310ppbAu G. Klitik: 170-400ppbAu Ngeni: 30-60ppbAu Ngrawan Hulu:3.4-5.2ppbAu Jinggring:0.99-9,61ppmAu	Bleg sampling , Stream sediments & Rock sampling

Data A-12 Description of Rocks of the Survey Area

A02T Altered dacite (silicified)

The original rock is inferred to be dacite, and primary quartz phenocrysts (anhedral due to corrosion) are observed. Also small amount of medium-grained plagioclase phenocrysts are observed, but they are sericitized and not fresh. The whole rock is silicified and weakly sericitized. Matrix consists predominantly of anhedral mosaic quartz with small amount of sericite at the interstices. Pools of coarse-grained mosaic quartz and vein-type quartz are developed in some parts. Quartz phenocrysts are surrounded by secondary fine to minute quartz grains. Also small amount of chlorite and smectite are found.

A14T Altered andesite

This rock is weakly altered and the original rock is andesite and coarse to medium-grained, euhedral to subhedral plagioclase phenocrysts are conspicuous. Quartz phenocrysts are not observed and minute quartz grains are scattered in the matrix, which is considered to be the product of alteration. Parts of the plagioclase crystals have been decomposed to calcite and quartz. Chlorite is either product of decomposition of mafic minerals (hornblende?) or secondary product in matrix. Small amount of sericite replaces plagioclase or potash feldspar. Euhedral to subhedral primary opaque minerals are also notable. Saussuritization is prevalent and has become a kind of propylite.

A17T Olivine-pyroxene basalt (?)

Euhedral to subhedral prismatic plagioclase occur as phenocrysts in this rock and it also contains small amount of olivine and clinopyroxene. The texture is, on the whole, porphyritic and flow texture of fine-grained long prismatic plagioclase is notable. Alteration is weak. Most of the olivine phenocrysts and clinopyroxene phenocrysts are altered to calcite, chlorite, and smectite. Glassy matrix has been devitrified and growth of smectite and other minerals is observed.

A23T Altered andesite ~ basaltic tuff (?)

The rock is strongly chloritized, epidotized, sericitized, and silicified. The original texture is almost non-existent. Growth of Mg-chlorite and small amount of ghost plagioclase (coarse prisms) is observed, and the rock has tuffaceous appearance. The composition of the altered minerals (Kg-chlorite, epidote) is considered to be somewhat basic. Large amount of chlorite occurs as patches in the quartz (anhedral, medium to fine-grained mosaic) matrix. Epidote occurs closely with aggregates of anhedral fine-grained opaque minerals locally. It could possibly be a decomposition product of mafic mineral. Sericite also tends to occur locally in pools, and could be an alteration product of feldspars. (Neutral alteration?).

A25T Altered dacite (propylitized)

Original rock is dacitic and porphyritic texture is noted. Many phenocrysts occur, mostly corroded coarse quartz, matrix has flow structure and consists of euhedral to subhedral plagioclase and fine-grained quartz, fine-grained prismatic plagioclase, and very minor amount of potash feldspars. Plagioclase is generally strongly altered and decomposed to albite, epidote · calcite, and quartz. The alteration is similar to typical propylitization. Also irregular pools and patches of calcite and epidote are observed.

A23T Silicified dacitic tuff (dacite)

Original rock is inferred to be dacitic tuff. Small amount of primary corroded quartz phenocrysts occur scattered, and the matrix consists of fine-grained quartz and fine-grained opaque minerals (some are coarse euhedral and inferred to be pyrite). Aggregates of fine-grained epidote are also observed. Quartz veins are also developed in some places. Quartz veins frequently contain opaque minerals (pyrite?) and vugs are formed in places.

A37T Altered basalt

Original rock is basalt with clear pilotaxitic texture and consists of euhedral to subhedral prismatic plagioclase phenocrysts, and the matrix consists mainly of fine-grained prismatic plagioclase, ortho and clinopyroxenes, and opaque minerals. Pockets of closely packed aggregates of opaque minerals and fine epidote are observed as well as medium-grained opaque minerals. Plagioclase phenocrysts are often altered and decomposed to quartz, epidote, chlorite and other minerals.

A39T Weakly altered two-pyroxene andesite

This rock is two-pyroxene andesite with clear porphyritic texture, and cryptocrystalline matrix consisting of fine-grained prismatic plagioclase and quartz (?), weak flow structure is observed. Phenocrysts are either independent or glomeroporphyritic, consisting of euhedral to subhedral coarse-grained plagioclase. They are often altered internally to calcite and epidote. Orthopyroxene is a minor constituent, euhedral and prismatic, while clinopyroxene is subhedral and short prismatic, some have been weakly epidotized. Quartz veinlets are observed, and the matrix has been silicified. Opaque minerals are either medium-grained subhedral to anhedral closely associated with phenocrysts or many are fine-grained and anhedral in matrix.

A49T Amphibole-biotite andesite

This rock has clear porphyritic texture and phenocrysts consist mainly of euhedral to subhedral independent to glomeroporphyritic plagioclase and coarse-grained subhedral prismatic clinopyroxene closely associated with plagioclase. Plagioclase is weakly altered and relatively fresh, while the rims of clinopyroxene phenocrysts are chloritized and biotitized. Glassy inclusions occur frequently in plagioclase. Matrix is cryptocrystalline and consists of acicular plagioclase and ameba-shaped quartz. Opaque minerals consist of medium-grained anhedral material and minute grains in matrix.

A57T Altered diorite

This is a holocrystalline-equigranular plutonic rock, consisting mainly of subhedral prismatic plagioclase, prismatic clinopyroxene and amphibole, and anhedral opaque minerals. Mafic minerals are generally chloritized, and as many clinopyroxene crystals are relatively fresh, the altered minerals are very possibly amphiboles. Zoning of plagioclase is weak and they are homogeneous. Amphiboles consist of hornblende and also actinolite, which may be an alteration product.

A63T Altered diorite

This is a holocrystalline-equigranular plutonic rock similar to A57T, but slightly coarser grained. It consists mainly of subhedral prismatic plagioclase, short prismatic clinopyroxene and actinolitic amphibole, and anhedral granular opaque minerals. The rims of clinopyroxene grains is notably chloritized and growth of amphibole in the core of clinopyroxene is not uncommon.

Clinopyroxene tends to contain many fine-grained opaque minerals.

It is believed, from microscopic observation, that the water vapor pressure tended to decline during solidification of magma, and mafic minerals (particularly clinopyroxene) were chloritized by subsequent hydrothermal activity.

A67T Aphyric andesite ~ dacite

Texture of this rock is aphyric and the rock consists mainly of fine prismatic plagioclase with small amounts of quartz patches and fine opaque minerals filling the interstices. It shows weak flow structure, and small amount of Fe-chlorite is observed. Notable mafic minerals are not observed and chlorite could be an alteration product of glass. Although locally, occurrence of epidote is also observed, and this is possibly a decomposition product of mafic minerals.

A109T Amygdaloidal basalt

The texture of this rock is porous amygdaloidal and some subhedral plagioclase phenocrysts occur with many amygdales filled by various minerals. Matrix is mainly cryptocrystalline with minute grains of prismatic plagioclase and parts are glassy. Amygdales are filled by various combination of minerals: ① chlorite, ② chlorite (crust) – quartz (euhedral, core), ③ quartz (euhedral) – zeolite (?), ④ quartz (euhedral) – calcite – chlorite (crust), ⑤ calcite, ⑥ calcite – quartz (euhedral), ⑦ zeolite – quartz, ⑧ zeolite, ⑨ quartz – chlorite – zeolite, and others.

Plagioclase phenocrysts are partly sericitized.

A115T Altered two-pyroxene (?) andesite

This is andesitic lava with porphyritic and intergranular texture. Phenocrysts consist of coarse-grained euhedral to subhedral plagioclase (strong zoning, many glassy inclusions, some glomeroporphyritic) and strongly chloritized and amphibolitized probably two (?) pyroxenes. Matrix consists of granular to prismatic and subhedral to anhedral crystals of plagioclase and quartz, with some opaque minerals (euhedral to anhedral). Plagioclase phenocrysts are partly calcitized and mafic minerals are also partly decomposed to calcite and opaque minerals.

B02T Pyroxene andesite

This rock is porphyritic to intergranular with phenocrysts of euhedral to subhedral plagioclase and clinopyroxene. These minerals are all strongly zoned and some are fragmented. Matrix consists mainly of prismatic euhedral to subhedral plagioclase, granular clinopyroxene, and anhedral opaque minerals with chlorite and smectite-like minerals in interstices, which are considered to possibly be product of devitrification. Flow structure is not notable. The rock is generally weakly altered with major change being devitrification.

B03T Dacitic weakly welded tuff

Welded texture is observed microscopically and flow structure is seen clearly throughout. Main constituents are; quartz fragments, plagioclase (subhedral to anhedral) fragments, float fragments, and tuff fragments are seen. Alteration is somewhat in advanced stage, and devitrification (growth of chlorite, smectite) is observed, but volcanic glass is also abundant.

B04T Pyroxene andesite

Lithofacies is similar to B02T with porphyritic · intergranular texture, and phenocrysts consist of euhedral to subhedral plagioclase and clinopyroxene. Plagioclase is strongly zoned and some of the pyroxene have hourglass structure. Matrix consists of prismatic plagioclase and granular clinopyroxene with intersertal opaque minerals. Also many chlorite – smectite minerals considered to be devitrification product of volcanic glass are observed.

B05T Tuffaceous sandstone · mudstone

This is a clastic rock occurring at the boundary of tuffaceous sandstone and mudstone. Sandstone is composed of clastic quartz fragments and plagioclase · potash feldspar and altered biotite-like mineral and glassy to clayey matrix, while mudstone consists of similar material with silt-size grains. Some calcite is observed in the matrix and parts are decomposition product of plagioclase. Also small amounts of illite, smectite, and chlorite occur as authigenic minerals.

B08T Altered andesite

This is andesitic lava with porphyritic and pilotaxitic texture. Phenocrysts consist of strongly altered euhedral to subhedral plagioclase and clinopyroxene (?), and strong flow structure of minute plagioclase grains occur in the matrix. Plagioclase phenocrysts are generally strongly altered and decomposed to calcite, quartz, and smectite and clinopyroxene (?) decomposed to chlorite, smectite, opaque minerals, and epidote. Alteration of the matrix is not as strong as the phenocrysts, but smectitization, chloritization, carbonatization (calcite) is observed.

B09T Graywacke

This is a poorly-sorted graywacke-type sandstone. Constituent detrital minerals are; quartz, plagioclase, clinopyroxene, opaque minerals, altered (chloritized, smectitized) mafic minerals (?). Some smectite and illite occur in the matrix. Many detrital grains show clastic form, but some plagioclase and pyroxene are euhedral to subhedral crystals.

B14T Altered amphibole (?) andesite ~ dacite

This rock is essentially similar to B14T with porphyritic, intergranular texture, phenocrysts consist of euhedral to subhedral and independent or glomerophyric plagioclase and coarse (coarser than B14T) altered amphibole (chloritized and decomposed to opaque minerals), and quartz are minute grains. Plagioclase alteration is weaker than B14T and is partly sericitized, smectitized and alteration is very weak in matrix.

B17T Altered andesite

This rock contains less mafic minerals (amphiboles?) than B14T and B15T, but it is considered to be essentially similar. Phenocrysts consists of euhedral to subhedral plagioclase (zoning notable) and relict phenocrysts of small amount of mafic minerals, while the matrix consists of cryptocrystalline quartz, plagioclase, and opaque minerals. Matrix is altered to some extent, but alteration is weak.

B20T Altered andesite

This rock is strongly altered and the original minerals are difficult to identify. Phenocrysts are considered, from their form, to be euhedral to subhedral plagioclase and mafic (clinopyroxene?) minerals occurring independently or glomerophyrically. Matrix is composed of minute grains of plagioclase and quartz. Plagioclase phenocrysts have decomposed to calcite, epidote, sericite,

smectite, and quartz, and mafic minerals to chlorite, epidote, calcite, opaque minerals, and plagioclase. Matrix has been altered and quartz, smectite, chlorite, and opaque minerals are observed.

B22T Altered porphyrite (?)
This rock has holocrystalline porphyrite texture, and is considered to be an intrusive rock with prismatic plagioclase and mosaic texture. Mafic minerals could not be confirmed. Opaque minerals and altered minerals (chlorite, smectite and others) fill the interstices. Plagioclase is dusty and calcitization, epidotization, and sericitization is noted. Calcite and epidote veinlets are developed.

B24T Sericitized – silicified dacite (?)
Original rock is believed to be dacitic, but it is strongly sericitized and silicified and the original texture is not discernible. It is, on the whole, aphyric and spots of subhedral to anhedral fine crystals of quartz and plagioclase are observed with minute grains of similar minerals fill the interstices. Sericite in some cases forms pools and show glomerophyric texture, but also it occurs as alteration product of plagioclase. Opaque minerals (pyrite) are disseminated in euhedral to subhedral form and are considered to be hydrothermal products.

B25T Dacite
This rock has porphyritic texture and microcrystalline matrix. Phenocrysts are composed of coarse-grained corroded anhedral quartz and euhedral to subhedral plagioclase and potash feldspar. In matrix, granular quartz is conspicuous with some prismatic euhedral to subhedral plagioclase. Distinct mafic minerals are not observed, but chlorite concentration occurs in glomerophyric parts of plagioclase and this may be alteration product of mafic minerals. Alteration is, on the whole, weak, and some plagioclase is partly altered to smectite and calcite, and potash feldspar to sericite. Opaque minerals occur in small amounts in the matrix as euhedral to subhedral grains.

C02T Pyroxene andesite
This rock is porphyritic with weak pilotaxitic texture. Phenocrysts are mostly euhedral to subhedral granular plagioclase occurring independently or in glomerophyric manner, also small amount of subhedral phenocrysts of clinopyroxene is observed. Weak flow structure of prismatic to acicular plagioclase is observed in the matrix, with intersertal minute opaque minerals. Medium to coarse-grained euhedral to subhedral opaque minerals occur scattered in the matrix. Plagioclase phenocrysts are altered to carbonates and sericite and in some cases to epidote. Clinopyroxene is almost all unaltered. Pockets, spots, and veins of calcite are observed in the matrix.

C15T Weakly altered andesite (?)
Thin section was made from a sample near the boundary of pyroxene andesite and andesite, and the former could be a xenolith within andesite. The pyroxene andesite has conspicuous phenocrysts of plagioclase and clinopyroxene, and some plagioclase is strongly altered to calcite, quartz, smectite, and zeolite (?). Alteration of pyroxene is not very strong, but chlorite is formed at the periphery. In the matrix, secondary chlorite – smectite forms oolitic structure.

The andesite is composed of euhedral to subhedral prismatic plagioclase (weakly altered) and

minute amount of clinopyroxene phenocrysts, and of matrix consisting of cryptocrystalline plagioclase and quartz. Pools of calcite is formed locally in the matrix.

C16T Altered andesite (propylite)
This rock has holocrystalline and weak porphyritic texture. It is, on the whole, coarse grained and appears to be of intrusive origin. It is composed mainly of coarse plagioclase and mafic minerals are almost all altered. Plagioclase is also notably albitized. The rock is strongly altered and large amount of chlorite fills the interstices of plagioclase (albite) grains. Mafic minerals are altered to epidote, chlorite and opaque minerals. Small amount of quartz patches occur in the matrix. Calcite also occurs as a secondary mineral.

C23T Altered augite andesite
This rock is holocrystalline and porphyritic, and consists of euhedral to subhedral plagioclase and subhedral clinopyroxene phenocrysts, and cryptocrystalline (devitrification?) matrix containing fine-grained prismatic plagioclase. Alteration is strong particularly around clinopyroxene and along cracks and joints where chlorite, prehnite, and opaque minerals occur, also feldspars (?) partly alter to chlorite, sericite, epidote and other minerals.

C25T Altered andesitic tuff breccia
This rock largely has porphyritic texture, and subhedral to glomerophyric plagioclase is observed. Matrix is hyalopilitic to cryptocrystalline. Plagioclase phenocrysts are strongly altered and are generally decomposed to calcite, quartz, and epidote (?). The rock is not homogeneous and basaltic andesite (?) fragments are often seen, and these appear to be tuff breccia. Many of the rock fragments are accidental and varies in kind, such as dacitic, andesitic, and basaltic.

C26T Silicified - carbonatized altered rock
This rock is very strongly altered by silicification and carbonatization, and it is almost impossible to identify the original rock. Prismatic texture of the original mineral can barely be observed, but whether it was amphibole or plagioclase is not clear. These are replaced by opaque minerals and chalcedonic quartz.

C28T Altered andesite
Porphyritic texture is prevalent in this rock and phenocrysts are mostly plagioclase. Matrix is hyalocrystalline to glassy, but strong alteration makes determination difficult. The matrix is strongly devitrified. The phenocryst plagioclase is notably altered to epidote, prehnite, and quartz, while the matrix is characteristically chloritized and devitrified-silicified (cryptocrystalline). Also small amounts of secondary calcite and opaque minerals are observed.

D10T Altered dacite
In this rock, euhedral to subhedral plagioclase forms porphyritic texture and the matrix is devitrified and microcrystalline consisting of prismatic plagioclase aggregates. Pools to ameba-form chalcedonic quartz aggregates occur scattered in the matrix. Mafic minerals are strongly chloritized and the original minerals are not clear but may be biotite.

D11T Microcrystalline amygdaloidal basalt
This rock is basaltic lava with hyalopilitic texture with very minor amount of minute euhedral

plagioclase, and glassy matrix has clear flow structure. Alteration is weak and although the rock is fresh, spherical pores are filled mainly by chalcedonic quartz and calcite (quartz crystallized first). Chalcedonic quartz and smectite veinlets are developed frequently.

D12T Tuffaceous (?) mudstone ~ siltstone

This is clastic rock consisting of quartz, plagioclase, epidote, opaque minerals, and other minute clastic grains. It is non-bedded mudstone without notable structure. The origin of the clastic material could be tuffaceous, but is uncertain.

D16T Porphyrite~ quartz porphyry intrusive rock

This rock is holocrystalline and equigranular with intrusive to plutonic lithofacies. It consists mainly of mosaic plagioclase with patches of quartz and potash feldspars filling the interstices. Many of the feldspars are altered to sericite, calcite, and chlorite. Mafic minerals are not observed, and some of the chlorite, calcite and opaque minerals could have been altered from mafic minerals.

D25T Altered pyroxene andesite ~ basaltic andesite

In this rock, porphyritic texture consisting of euhedral to subhedral plagioclase and small amount of subhedral clinopyroxene are clearly observed and the matrix has hyalopilitic to intergranular texture consisting of euhedral plagioclase, granular opaque minerals, clinopyroxene, and altered glass (?). Plagioclase phenocrysts are strongly altered and has become smectite or calcite completely or at the core. Clinopyroxene is also altered to chlorite or smectite. In the matrix, plagioclase is generally weakly altered, and the glass is strongly smectitized.

D27T Altered andesite

This rock has porphyritic texture consisting of euhedral to subhedral plagioclase occurring independently or with glomerophyric texture and the matrix has hyalopilitic texture consisting of minute acicular plagioclase and glass (?). Alteration is characterized mainly by smectite, quartz, and calcite at the core of plagioclase, but albitization is also notable, and cleavage and cracks of plagioclase has become dusty indicating the progress of alteration. Mafic minerals have almost completely become smectite and chlorite and the original mineral with biotite-like appearance cannot be identified accurately. Coarse-grained opaque minerals are either closely related to phenocrysts or occur independently.

D28T Porphyrite ~ dolerite

The rock has holocrystalline porphyritic texture and the phenocrysts are coarse euhedral to subhedral plagioclase and subhedral mafic minerals, and the matrix has intersertal texture consisting of medium-grained subhedral plagioclase and anhedral granular clinopyroxene and opaque minerals. Alteration is strong and calcite, quartz, epidote, albite are observed as alteration product of plagioclase phenocrysts, while epidote and chlorite are those of the mafic minerals (clinopyroxene?). Secondary epidote and calcite are the secondary minerals in the matrix.

D30T Fine-grained granodiorite

The rock is holocrystalline and equigranular, and has hypabyssal to plutonic texture. The major rock-forming minerals are subhedral to anhedral plagioclase, quartz, small amount of potash

feldspar, and subhedral hornblende. Alteration is not very strong, but some amphibole grains are chloritized, and plagioclase and potash feldspars have become dusty. Secondary prehnite and epidote occur in the interstices of plagioclase. Opaque minerals are generally anhedral and occur associated with plagioclase and other minerals.

D33T Altered rhyolitic tuff breccia

The pebbles of this breccia vary significantly such as; quartz fragments, dacitic volcanic breccia, dacitic tuff, and welded tuff fragments. It is strongly carbonatized. Secondary euhedral to subhedral and granular epidote is observed. Part of the feldspars have been kaolinitized.

E22T Altered dacitic tuff

This rock consists of clastic material such as; quartz, plagioclase, chert, quartzite, and dolerite (?) fragments. As a whole it is tuffaceous and is altered. Alteration products are characterized by sericite, smectite, and silicified minerals. Chlorite is also found. Alteration occurred in the matrix and has the appearance of welded structure, but the alteration is believed to be hydrothermal activity.

E23T Silicified dacitic tuff

The original rock is dacitic tuff and it consists of fragments of quartz, plagioclase, chert, quartzite, and siliceous matrix. Plagioclase has been altered to albite and partly sericitized and smectitized. The matrix is characterized by strong silicification and network sericitization.

E29T Amphibole andesite (opacitized)

This rock consists of euhedral to subhedral medium-grained plagioclase and amphibole phenocrysts, and hyalocrystalline matrix composed of cryptocrystalline plagioclase, anhedral opaque minerals and glass. Phenocryst plagioclase is strongly zoned and many are fragmented. Phenocryst amphiboles have opacite rim, indicating strong oxidation with clear opacite structure. Phenocryst plagioclase also is partly altered to smectite.

F06T Altered basalt

The original rock is inferred to be hyalopilitic basalt, but it is strongly silicified, chloritized, and smectitized. Lathfeldsapar constituting the matrix of the original rock is relatively unaltered, but the interstitial glass (?) has been altered to quartz, chlorite, and smectite and these minerals occur intersertally. What appears to be the original phenocryst plagioclase has been completely sericitized and silicified to opaque minerals, smectite (?), and other minerals. Also pools (amygdales?) and quartz veins are developed indicating hydrothermal activity.

F16T Altered (sericite - kaolinite - silicified) tuff

The original rock is believed to be basaltic ~ andesitic tuff, and rock fragments indicating hyalopilitic texture are abundantly observed. It is strongly altered by hydrothermal activity, and spots of quartz grains have been formed, matrix and feldspars are strongly sericitized and silicified. Amygdales of basaltic (?) fragments are filled by kaolinite (?) - sericite and other alteration minerals.

F25T Altered pyroxene andesite

This rock is composed of subhedral coarse-grained plagioclase and medium-grained

clinopyroxene phenocrysts which occur as independent grains or in glomerophyric aggregates, and cryptocrystalline and intergranular fine-grained plagioclase, anhedral clinopyroxene, and opaque minerals. Chlorite, carbonate (calcite) alteration is notable along the cleavages and cracks of phenocryst plagioclase, and weak chloritization is observed in clinopyroxene. Patches and veins of calcite occur in the matrix.

Data A-13 Description of Polished Sections (1/25)

Sample No.:	A26P
Rock name:	Pyrite-chalcopyrite stockwork ore.
Observation:	Mainly stockwork ore, bearing breccias with disseminated pyrite.

Microscopic description

Texture:

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral~subhedral	20~800 μ	~20% (breccia?)	Breccia (pyrite disseminated).
	coarse-grained, anhedral	1~2mm φ	~10% (stockwork)	Coexisting with chalcopyrite.
Chalcopyrite	anhedral, dotted, elongated, ellipsoidal grains	0.2~5mm	~20%	Coarse-grained, main ore mineral in stockwork part. Secondary Cu minerals occur at the rim part of chalcopyrite.

secondary minerals:

mineral	form	size	amount (%)	description
Covelline	shell-shape	10~20 μ	~1%	At the rim of chalcopyrite (secondary).

Sample No.:	A27P
Rock name:	Pyrite-chalcopyrite ore with oxidized iron minerals.
Observation:	

Microscopic description

Texture: disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	subhedral ~anhedral grain	~800 μ	~2%	Secondary minerals occuring in the surroundings and cracks.
Chalcopyrite	anhedral, dotted ~elongated, ellipsoidal, irregular	0.2~1.5mm	~5%	Secondary minerals occur in the surroundings and cracks. (covelline)

secondary minerals:

mineral	form	size	amount (%)	description
Hematite	shell-shaped,	10~100 μ	~2%	Altered mineral of pyrite.
Limonite	~veinlets	10~100 μ	~2%	Altered mineral of pyrite.
Covelline	shell-shaped,	20~200 μ	~3%	Altered mineral (secondary) of chalcopyrite.
Cu-mineral	~veinlets			

Data A-13 Description of Polished Sections (2/25)

Sample No.: A30P
Rock name: Pyrite bearing quartz vein.
Observation:

Microscopic description
Texture: disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	subhedral ~anhedral, grain	20~1000 μ	~1%	Disseminated, isolated
Chalcopyrite	anhedral	~50 μ	~0.1%	Disseminated, very minor amount, isolated

secondary minerals: not altered

mineral	form	size	amount (%)	description

Sample No.: A51P
Rock name: Disseminated pyrite ore (with iron oxides, quartz vein).
Observation:

Microscopic description
Texture: disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedal~subhedral dotted	100 μ ~1mm φ (Av. 200~300 μ)	~10%	Partly or completely altered into limonite and hematite.
Chalcopyrite	irregular	10~20 μ	~1%	occurs within pyrite or at the rim of pyrite.

secondary minerals:

mineral	form	size	amount (%)	description
Limonite Hematite	irregular shell-shaped	Pseudomorph Pyrite?	~3%	Weathered product of pyrite, (gossan).

Data A-13 Description of Polished Sections (3/25)

Sample No.:	A72P
Rock name:	Barren quartz vein cutted by pyrite disseminated quarz vein..
Observation:	

Microscopic description

Texture: pyrite disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral ~subhedral, tabular	50 μ ~1mm ϕ	10~15% (in pyrite-quartz vein)	Later stage quartz vein (white)

secondary minerals:

mineral	form	size	amount (%)	description
Limonite Hematite	shell-shaped vein			Occurs at the rim of pyrite or along the cracks (secondary).

Sample No.:	A75P
Rock name:	Pyrite disseminated breccia rock (fragment part of quartz vein ?)
Observation:	mostly brecciated

Microscopic description

Texture: pyrite: disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedal ~subhedral, prismatic	50~500 μ	5~10%	Pyrite: brecciated (secondary). (product of brecciation?)

secondary minerals:

mineral	form	size	amount (%)	description
Limonite Hematite	shell shaped vein	10~20 μ	~1%	Oxidized pyrite

Data A-13 Description of Polished Sections (4/25)

Sample No.: A82P
Rock name: Pyrite disseminated, silicified dacitic rock.
Observation:

Microscopic description
Texture: disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	subhedral～euhedral skelton crystal	～800 μ φ	～3%	Disseminated ore in silicified rock (dacitic?) Skelton crystal: (secondary)

secondary minerals:

mineral	form	size	amount (%)	description
Limonite Hematite	irregular shell-shaped	10～20 μ	<1%	Secondary products of pyite.

Sample No.: A83P
Rock name: Pyrite－sphalerite ore
Observation:

Microscopic description
Texture:

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedal ～subhedral	200 μ ～1.5mm	15～20%	Occurs in the core part of sphalerite or included in sphalerite.
Marcasite	subhedral or irregular	50～100 μ	～3%	Included in pyrite or associated with pyrite
Sphalerite	grained, anhedral	1～2mm	20～30%	Chalcopyrite dots bearing.
Chalcopyrite	dotted	5～10 μ	～1%	Included in sphalerite as diseases, concentric circular or linear.

secondary minerals: no alteration

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (5/25)

Sample No.:	A87P
Rock name:	Chalcopyrite disseminated ore (in quartz vein) with iron oxides.
Observation:	
Microscopic description	
Texture:	disseminated ore, gossan
Ore minerals:	

mineral	form	size	amount (%)	description
Chalcopyrite	anhedral, grain shape	~500 μ	~2%	Altered at the rim part Covelline and other Cu secondary minerals occur.
Pyrite	euhedral ~subhedral, grain shape	30~400 μ	~1%	Partly or completely altered to limonite or hematite.

secondary minerals:

mineral	form	size	amount (%)	description
Limonite Hematite	pseudomorphic shell- shaped	10~100 μ	~1%	Secondary(?) (weathered)
Covelline Cu-mineral	shell-shaped	10~50 μ	~1%	Secondary(?) (weathered)

Sample No.:	A92P
Rock name:	Pyrite disseminated in silicified propylitic rock (?)
Observation:	
Microscopic description	
Texture:	disseminated
Ore minerals:	

mineral	form	size	amount (%)	description
Pyrite	euhedral	50 μ ~1mm	~10%	Disseminated in silicified rock (?)

secondary minerals: no alteration

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (6/25)

Sample No.:	A93P
Rock name:	Disseminated pyrite in altered pyroclastic rock (?)
Observation:	
Microscopic description	
Texture:	disseminated
Ore minerals:	

mineral	form	size	amount (%)	description
Pyrite	euhedral ~anhedral gains	10~300 μ (max 600 μ)	~5%	Fine pyrite:euhedal, coarse grained pyrite: anhedral

secondary minerals: no alteration

mineral	form	size	amount (%)	description

Sample No.:	A94P
Rock name:	Pyrite-quartz ore
Observation:	
Microscopic description	
Texture:	disseminated~glomeroporphyritic
Ore minerals:	

mineral	form	size	amount (%)	description
Pyrite	subhedral ~subhedral coarse-grained	100 μ ~1mm	~20%	Coarse-grained,glomeroporphyritic. Subhedral crystals

secondary minerals: no alteration

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (7/25)

Sample No.:	A95P			
Rock name:	Pyrite disseminated silicified altered rock cutted by pyrite bearing quartz vein.			
Observation:				
Microscopic description				
Texture:	banded quartz vein in disseminated (altered) host rodk			
Ore minerals:				
mineral	form	size	amount (%)	description
(Host rock)				
Pyrite	euhedral~subhedral	20~500 μ (Average 100 μ)	10~20%	Disseminated.
	anhedal, grained (medium grain size)			
(Quartz vein)				
Pyrite	anhedral, coarse-grained	50~1.5m (Average 500 μ)	20~30%	Vein, banded.
secondary minerals:	no alteration			
mineral	form	size	amount (%)	description

Sample No.:	A96P			
Rock name:	Pyrite vein in pyrite disseminated silicified altered rock.			
Observation:				
Microscopic description				
Texture:	host rock : pyrite disseminated vein : pyrite vein			
Ore minerals:				
mineral	form	size	amount (%)	description
(Host rock)				
Pyrite	euhedral~subhedral, grained	10~100 μ (Average 50 μ)	~10%	Derived from dissemination and silicification.
(Vein)				
Pyrite	anhedal, coarse grained	20~400 μ (Average 300 μ)	80~90%	Mainly mono-mineral vein Gangue: small amount of quartz (?)
secondary minerals:	not altered			
mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (8/25)

Sample No.: A99P
Rock name: Pyrite disseminated whitish silicified altered rock.
Observation:

Microscopic description
Texture: disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral	50~300 μ	~10%	disseminated

secondary minerals:

mineral	form	size	amount (%)	description
Limonite Hematite	anhedal, elongated tablar grained	5~20 μ	<1%	Irregular dotted Secondary minerals of pyrite or mafic mineral ?

Sample No.: A100P
Rock name: Quartz vein contain barren to minor amount of pyrite (gossan).
Observation:

Microscopic description
Texture:

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral	~100 μ	<1%	Only one grain in barren quartz.

secondary minerals:

mineral	form	size	amount (%)	description
Limonite Hematite	shell-shaped fissure filling	10~50 μ	<1%	Pseudmorphs of pyrite, in cavities.

Data A-13 Description of Polished Sections (9/25)

Sample No.:	A102P
Rock name:	Electrum, Ag-mineral, chalcopyrite－pyrite bearing quartz vein.
Observation:	

Microscopic description

Texture: disseminated or semi-banded

Phenocryst:

mineral	form	size	amount(%)	description
Chalcopyrite	anhedral, grained irregular	100 μ ～3mm (Av.1～2mm)	～20%	Chalcopyrite: very common (same as chalcopyrite- quartz vein). Mainly pyrite contain in chalcopyrite.
Elrctrum	irregular grained	10～100 μ	＜1%	Close to Ag minerals.
Ag-mineral (?)	bar-shape or irregular optically isotropic	5×20 μ (max)	＜0.1%	Contained in electrum.
Agminerals (Pyrargyrite, pearceite?)	irregular grained acicular	50～200 μ	＜1%	Close to electrum. (pearceite: acicular)

secondary minerals: not altered

mineral	form	size	amount (%)	description

Sample No.:	A103P
Rock name:	Iron gossanized quartz vein
Observation:	Iron oxides are observed but, conspicuous sulfide is not observed by naked eyes.

Microscopic description

Texture: vein

Phenocryst:

mineral	form	size	amount (%)	description

secondary minerals: Not altered

mineral	form	size	amount (%)	description
Limonite	shell- shaped fissure filling (pseudomorphic)	～50 μ	～5%	Pyrite :psudomorphic:, secondary occurring along the cracks.
Hematite	vein	10～20 μ ϕ	～5%	

Data A-13 Description of Polished Sections (10/25)

Sample No.:	A111P
Rock name:	Quartz vein with iron oxides
Observation:	
Microscopic description	
Texture:	Banded, or disseminated limonite and hematite (secondary).
Phenocryst:	

mineral	form	size	amount (%)	description

secondary minerals: Not altered

mineral	form	size	amount (%)	description
Limonite	anhedral~euhedral grains (pseudomorphic)	5~50 μ (max)	5~10%	Pseudomorphic texture of pyite, secondarily altered. (iron oxdized, mostly weathered)
Hematite	shell shaped ~colloform			Crack filling

Sample No.:	A112P
Rock name:	Barren quartz
Observation:	
Microscopic description	
Texture:	only one small fine grain of pyrite, barren
Phenocryst:	

mineral	form	size	amount (%)	description
Pyrite	subhedral	~10 μ	<0.1%	Weak pyritization, not weathered

secondary minerals: not altered

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (11/25)

Sample No.:	A113P
Rock name:	Quartz vein with iron oxides.
Observation:	stockwork ~veinlets

Microscopic description

Texture: fissure filling, vein, colloform, radial texture

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral~subhedral	~100 μ	<1%	In cavities, several grains

secondary minerals:

mineral	form	size	amount (%)	description
Limonite	anhedal, shell- shaped colloform	10~50 μ minor grain : μ size	~10%	Fissure filling , pseudomorphic pyrite remain. In cavities with colloform or shell shaped.
Hematite	radial (acicular)	vein:~10 μ ϕ		Veinlets or aggregation shape ofminute grains.

Sample No.:	A117P
Rock name:	Non altered or weak altered dacite.
Observation:	

Microscopic description

Texture: volcanic texture
disseminated magnetite scattered

Ore minerals:

mineral	form	size	amount (%)	description
Magnetite	anhedal, grained	~100 μ ϕ	~1%	Primary mineral. Not altered.

secondary minerals:

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (12/25)

Sample No.: A121P
Rock name: Pyrite-quartz vein in silicified decite.
Observation:

Microscopic description
Texture: vein

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	coarse-grained euhedral~subhedral vein	200 μ ~2.5mm (max)	~20% (in quartz vein)	Pyrite-quartz vein in dacitic silicified rock. Grain of pyrite: partly brecciated.

secondary minerals: not altered

mineral	form	size	amount (%)	description

Sample No.: A123P
Rock name: Pyrite-quartz vein with iron oxides
Observation:

Microscopic description
Texture: disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral~subhedral coarse-grained	200 μ ~2.5mm (max)	~5%	Quartz vein with disseminated pyrite. The rim of coarse grained pyrite or fine grained pyrite is completly altered to hematite or limonite.

secondary minerals:

mineral	form	size	amount (%)	description
Limonite Hematite	shell shaped colloform fissure filling	5~20 μ	<2%	Weakly oxidized

Data A-13 Description of Polished Sections (13/25)

Sample No.:	A124P
Rock name:	Silicified tuff breccia cutted by Pyrite−chalcopyrite(sphalerite)contain quartz vein.
Observation:	quartz vein

Microscopic description

Texture: disseminated or coarse-grained dots

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral~subhedral medium to coarse-grained	200 μ ~3mm (max)	~20%	Medium grain : glomeroporphyritic, coarse grain: as single crystal.
Chalcopyrite	irregular anhedral, grained	200 μ ~1.5mm	5~10%	associated with pyrite.
Sphalerite	anhedral, grained	20~50 μ	<1%	Contained in pyrite with irregular shape of fine grained chalcopyrite.

secondary minerals:

mineral	form	size	amount (%)	description
Covelline	shell- shaped	10~50 μ	<1%	Occurs at the rim of chalcopyrite. (secondary products : derived from weathering)
Limonite Hematite	shell-shaped stockwork	10~30 μ	<1%	Secondary mineral of pyrite.

Sample No.:	B01P
Rock name:	breccia-like quartz vein
Observation:	breccia-like quartz (the host rock contains silicified breccia).

Microscopic description

Texture: contains small amount of brecciated pyrite.

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	irregular, brecciated partly subhedral	800 μ φ(max)	~1%	Brecciated texture.
	euhedral	~10 μ	~0.1%	Disseminated

secondary minerals: not altered

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (14/25)

Sample No.:	B06P
Rock name:	Barren quratz with iron oxides
Observation:	barren quartz: mostly reddish brown to yellowish brown in color.

Microscopic description

Texture: Mainly altered into limonite and hematite in cavities or cracks.

Phenocryst:

mineral	form	size	amount (%)	description
Pyrite	euhedral~subhedral	~30 μ	~0.1%	Occurs in cavities.

secondary minerals: fissure filling or percolate in cavities and cracks.

mineral	form	size	amount (%)	description
Limonite Hematite	irregular colloform partly aggregation of minutes grain	1~150 μ	~1%	Secondary product (weathered) pyrite

Sample No.:	B10P
Rock name:	Quartz veins with very fine grained disseminated pyrite-chalcopyrite.
Observation:	Sulfide disseminated quart vein.

Microscopic description

Texture: disseminated

Phenocryst:

mineral	form	size	amount (%)	description
Pyrite	euhedral~subhedral	10~200 μ (Av.50 μ)	~3%	Irregularly disseminated. Locally very fine quartz aggregation.
Chalcopyrite	irregular	~100 μ	~0.1%	Not associated with other sulfides

secondary minerals: Not altered

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (15/25)

Sample No.:	B20P
Rock name:	Coarsegrained pyrite ore
Observation:	Pynte: brecciated

Microscopic description

Texture: autobreccia like, coarse grained.

Phenocryst:

mineral	form	size	amount (%)	description
Pyrite	irregular ~subhedral aggregated grains	max 5~7mm	~80%	Aggregated grains, coarse-grained.

secondary minerals: not altered

mineral	form	size	amount (%)	description

Sample No.:	B21P
Rock name:	Gray quartz vein with pyrite dissemination.
Observation:	Finely brecciated and contains abundant quartz pyrite veinlets.

Microscopic description

Texture: disseminated

Phenocryst:

mineral	form	size	amount (%)	description
Pyrite	euhedal~irregular	10~300 μ	~3%	Disseminated, very fine grain: euhedal, dominant. medium grain: subhedral~irregular

secondary minerals: not altered

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (16/25)

Sample No.:	B23P
Rock name:	Whitish quartz vein with pyrite dissemination.
Observation:	Mostly part with cracks

Microscopic description

Texture: disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedal~irregular	30~400 μ (Av.200 μ)	~3%	Euhedral grains :abundant Mostly coarse grained.
Chalcopyrite	irregular, elongated ellipsoidal	100~150 μ	~0.1%	Not associated with other sulfides.

secondary minerals: not altered

mineral	form	size	amount (%)	description

Sample No.:	B24P
Rock name:	Brecciated quartz with iron gooxides
Observation:	Breccia and stockwork of secondary mineral (iron oxide ?) developed.

Microscopic description

Texture: network, veinlet, fissure filling
Primary sulfide are not observed.

Ore minerals:

mineral	form	size	amount (%)	description

secondary minerals:

mineral	form	size	amount (%)	description
Hematite	network veinlet fissure filling	30~200 μ	~10%	Secondary products.
Limonite	colloform densely aggregated	~5 μ	~1%	Associated with hematite

Data A-13 Description of Polished Sections (17/25)

Sample No.: C27P

Rock name: Brecciated quartz vein with pyrite and chalcopyrite.

Observation: INtensely brecciated(3～5mm ϕ av.)

Microscopic description

Texture: brecciated, disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	irregular ～subhedral	～3mm	5～7%	Brecciated.
Chalcopyrite	irregular	0.5～1mm	～2%	Brecciated.

secondary minerals: not altered

mineral	form	size	amount (%)	description

Sample No.: C29P

Rock name: Reddish brown to yellowish brown banded quartz vein with pyrite dissemination (iron oxidized).

Observation:

Microscopic description

Texture: pyrite disseminated, secondarily altered (hematitized－limonitized)

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedal～irregular	～1.5mm	～1%	

secondary minerals: Occurs at the rim of pyrite or completely replaced to hematite or limonite.

mineral	form	size	amount (%)	description
Hematite Limonite	pseudomorphic shell-shaped fissure filling colloform	10～300 μ	～10%	Secondary altered (iron oxidized).

Data A-13 Description of Polished Sections (18/25)

Sample No.:	D01P
Rock name:	Quartz vein with pyrite－sphalerite－chalcopyrite dissemination (iron gossan)
Observation:	yellowish brown to grayish brown, banded (weakly) quartz vein.

Microscopic description

Texture: disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral～subhedral	10～200 μ	～2%	Disseminated, closely associated with sphalerite.
Marcasite	irregular aggregated grain anhedral	50～100 μ	～0.5%	Aggregated grains, associated with pyrite and sphalerite.
Sphalerite	irregular	max 1×3mm	～5%	Frequently contain minute grained chalcopyrite.
Chalcopyrite	irregular grains vein	10～200 μ	～1%	Occurs in sphalerite as minute grains

secondary minerals: vein type or shell shape covelline: secondary occured at rim part or cracks of sphaleite.

mineral	form	size	amount (%)	description
Covelline	shell-shaped veinlets	10～20 μ	～2%	At the rims of chalcopyrite gains Secondary

Sample No.:	E12P
Rock name:	Whitish silicified rock with pyrite dissemination (dacitic rock?)
Observation:	silicified, bearing fine to coarse grained pyrite. brownish network veinlets (secondary).

Microscopic description

Texture: disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral～anhedral	50～300 μ (euhedral) 1～2mm (subhedral, anhedral, grained)	20～25%	Disseminated (fine grained) part: mainly in silicified rock. Coarse-grained pyrite: occurs in network quartz vein.

secondary minerals: not altered

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (19/25)

Sample No.:	E15P
Rock name:	Whitish Clay + quartz vein with pyrite dissemination.
Observation:	Spotted whitish clay (kaolin?) with whitish quartz vein and pyrite disseminated.

Microscopic description

Texture: disseminated

Phenocryst:

mineral	form	size	amount (%)	description
Pyrite	euhedral~anhedral, irregular	30~800 μ	~0.1%	Fine to medium grained pyrite: euhedral, coarse grained pyrite: irregular.
Chalcopyrite	anhedral, irregular	~100 μ	<1%	Very few amount , independent grain.

secondary minerals: not altered

mineral	form	size	amount (%)	description

Sample No.:	E28P
Rock name:	Greenish gray weakly silicified rock with pyrite dissemination.
Observation:	Weakly silicified andesitic rock with a few amount of pyrite dissemination.

Microscopic description

Texture: disseminated

Phenocryst:

mineral	form	size	amount (%)	description
Pyrite	subhedral~ irregular	300~800 μ micro grain size:~50 μ	~1%	Disseminated

secondary minerals: TiO_2 mineral occurred: resoluted from mafic mineral

mineral	form	size	amount (%)	description
TiO_2鉱物 (rutile?)	subhedral elongated ellipsoidal ~grained	5~10 μ	<1%	mafic mineral resoluted by alteration (?)

Data A-13 Description of Polished Sections (20/25)

Sample No.:	E32P
Rock name:	Whitish silicified rock with pyrite dissemination.
Observation:	Pyrite dissemination, silicification and quartz stockwork veinlets.

Microscopic description

Texture: disseminated

Phenocryst:

mineral	form	size	amount (%)	description
Pyrite	euhedral~subhedral	20~200 μ (Av.100 μ)	10~20%	Disseminated in silicified host rock Euhedral, and fine grained (~100 μ) of a few amount of pyrite, in quartz vein. Associated with sphalerite
Sphalerite	irregular	~200 μ	<1%	A fewt grains: in quartz vein, associated with pyrite. Spotted chalcopyrite and pyrite (>1 μ)are contained in sphalerite.
Galena	irregular	20~100 μ	<1%	A few grains in quartz vein, associated with pyrite.

secondary minerals: Not altered

mineral	form	size	amount (%)	description

Sample No.:	E33P
Rock name:	Whitish silicified rock with pyrite dissemination cutted by pyrite and quartz vein (iron oxides).
Observation:	Host rock: silicified rock with pyrite dissemination cutted by pyrite and quartz vein (width ~2mm). Yellowish brown colored by secondary alteration and weathering (iron oxides).

Microscopic description

Texture: disseminated (silicified host rock)

Phenocryst:

mineral	form	size	amount (%)	description
Pyrite (host rock)	euhedral~subhedral	50~100 μ	5~10%	With small amount of chalcopyrite and sphalerite
Pyrite (quartz vein)	euhedral~subhedral	200~500 μ	10~15%	Coarse grained, brecciated secondarily altered (limonitized and hematitized).
Chalcopyrite	anhedral, irregular	~50 μ	<0.5%	Associated with pyrite or contained in pyrite.
Sphalerite	anhedral, irregular	200~500 μ	<0.5%	Contains micro grains (<1 μ) of chalcopyrite.

secondary minerals: hematite and limonite occurred along the cracks (network altered mineral).

mineral	form	size	amount (%)	description
Hematite	stockwork	10~20 μ φ	~1%	Secondary altered mineral (derived from pyrite).
Limonite	stockwork			

Data A-13 Description of Polished Sections (21/25)

Sample No.:	E35P
Rock name:	Pyrite-quartz vein in whitish silicified rock with pyrite dissemination.
Observation:	host rock: whitish dacitic to andesitic rock with silicification and pyrite dissemination. quartz pyrite veins: width 0.5～1mm.

Microscopic description

Texture: disseminated (altered host rock)

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite (host rock)	euhedral～subhedral	20～200 μ (Av.100 μ)	10～15% (in host rock)	Disseminated
Pyrite (quartz vein)	euhedral	20～50 μ (max.500 μ)	20～30% (in vein)	

secondary minerals: not altered

mineral	form	size	amount (%)	description

Sample No.:	F06P
Rock name:	Quartz vein with pyrite dissemination.
Observation:	Yellowish brown quartz vein with few amount of coarse grained pyrite dissemination.

Microscopic description

Texture: disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	subhedral～ anhedral, irregular	300 μ～3mm	～5%	Coarse-grained,dissemination

secondary minerals: not altered

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (22/25)

Sample No.:	F13P
Rock name:	Quartz vein with fine to medium grained pyrite dissemination.
Observation:	pyrite: fine to medium grain, enrichment zone: a few part.

Microscopic description

Texture: disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral~anhedral irregular tablar	30~800 μ	10~15%	Locally disseminated (cutted by later stage barren quartz veinlets)

secondary minerals:

mineral	form	size	amount (%)	description
Limonite Hematite	shell shaped~ stockwork	~150 μ	~2%	Developed in cracks of pyrite, as stockwork, or at the rim of pyrite. (Secondary altered with iron gossan)

Sample No.:	F14P
Rock name:	Quartz vein with brecciated pyrite.
Observation:	pyrite: coarse grained (euhedral~subhedral brecciated) to micro grained (filling the matrix part).

Microscopic description

Texture: brecciated, fissure filling ,disseminated

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral~anhedral	20~300 μ	~20%	Independent or aggregated (fine grained). Partly occurs at the rim of coarse grained pyrite.
	brecciated euhedral or anhedral by macrscopically	1.5~6mm	~20%	Contains subhedral or irregular euhedral quartz crystal.
Chalcopyrite	irregular	100~200 μ	<1%	Not associated with other sulfides

secondary minerals: not altered

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (23/25)

Sample No.:	A04P
Rock name:	Quartz vein (or silicified rock?) with iron oxides
Observation:	

Microscopic description

Texture: disseminated part: altered to secondary mineral (iron hydroxide, hematite)
few amount only, partly with iron oxides veinlets..

Ore minerals:

mineral	form	size	amount (%)	description

secondary minerals:

mineral	form	size	amount (%)	description
Limonite	irregular shell- shaped	10～200 μ	<1%	Shell- shape in cavities Secondary mineral of pyrite ?
Hematite	irregular, grained	～10 μ	<1%	Secondary products from limonite ? (dehydration)

Sample No.:	A22P
Rock name:	Hematite-magnetite ore
Observation:	

Microscopic description

Texture: scattering of radial form hematite, vesicular

Ore minerals:

mineral	form	size	amount (%)	description
Hematite	radial～prismatic	～10 × 500 μ	～70%	Magnetite occurs as pseudomorphs of hematite.
Magnetite	grained～metasomatic	20～200 μ	5～10%	

secondary minerals: not altered

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (24/25)

Sample No.:	A125P
Rock name:	Brecciated silicified rock with pyrite dissemination.
Observation:	brecciated

Microscopic description

Texture: disseminated~rough shaped pyrite

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral ~subhedral, grained	50 μ ~1.2mm	<10%	Re-silicification and brecciation of silicified rock, with barren quartz veinlets.
Sphalenite	anhedral, grained ~irregular	10~100 μ	<1%	Small amount of sphalerite in coarse grained pyrite.

secondary minerals: not altered

mineral	form	size	amount (%)	description

Sample No.:	A127P
Rock name:	Pyrite-chalcopyrite quartz vein or network
Observation:	network~vein (in brecciated rock)

Microscopic description

Texture: disseminated~aggregated dots

Ore minerals:

mineral	form	size	amount (%)	description
Pyrite	euhedral~subhedral coarse grained	50 μ ~1.5mm (max)	~10%	Included in coarse grained chalcopyrite.
Chalcopyrite	irregular coarse grained aggregated dots	20 μ ~5mm (max)	15~20%	Coarse grained , associated with pyrite and sphalerite.
Sphalerite	irregular elongated ellipsoidal	200 μ × 800 μ	<1%	associated with chalcopyrite.

secondary minerals: not altered

mineral	form	size	amount (%)	description

Data A-13 Description of Polished Sections (25/25)

Sample No.:	A101P
Rock name:	Pyrite−quartz vein with iron oxides
Observation:	Brownish barren quartz vein cutted by coarse grained pyrite quartz vein.

Microscopic description

Texture: disseminated

Ore minerals:

mineral	form	size	amount(%)	description
Pyrite	coarse grained euhedral	~3mm (max)	~10% (Py-Qz vein)	Developping in barren quartz vein. Coarse grained. The rim is secondarily altered into limonite and hematite.
Chalcopyrite	anhedral	~100 μ	~1%	Very small amount, partly associated with pyrite in quartz vein. Coveline as secondary alterd mineral.

secondary minerals:

mineral	form	size	amount(%)	description
Limonite Hematite	shell-shaped	10~50 μ	~1%	Secondary mineral of pyrite or iron oxides (along the cracks).
Covelline	shell-shaped	~10 μ	<1%	Secondary mineral of chalcopyrite.

Sample No.:	C24P
Rock name:	Ag mineral bearing quartz vein with dissemination of chalcopyrite, sphalerite and pyrite.
Observation:	Quartz vein or brecciated silicified rock with chalcopyrite, sphelerite and covelline.

Microscopic description

Texture: disseminated

Ore minerals:

mineral	form	size	amount(%)	description
Pyrite	irregular ~subhedral	50~100 μ	~2%	Replaced by chalcopyrite, corroded form.
Chalcopyrite	irregular	~400 μ	~5%	Close to sphalerite and Ag mineral (polybasite?)
Sphalerite	irregular	~200 μ	~10%	Replacement of pyrite. Close to chalcopyrite and polybasite.
(Polybasite?)	irregular ~subhedral	~100 μ	~2%	Close to sphalerite and chalcopyrite.

secondary minerals: covelline : rim part of chalcopyrite.

mineral	form	size	amount(%)	description
Covelline	marginal part (rim)	5~10 μ φ	~1%	Secondary altered mineral of chalcopyrite ?