85-570-13892

6/86

DRILL CORE GEOCHEMICAL REPORT

Specific Claims:	Alexis 1	# 884 (10)
	Alexis 2	# 885 (10)
	Alexis 3	# 886 (10)
	Alexis 4	# 887 (10)
	Alexis 11	#1035 (6)
	Alexis 15	#1039 (6)
	Alexis 16	#1040 (6)

Clinton Mining Division

NTS Location: 92N/8E

Latitude: 51°21'

Longitude: 124°14'

Owner of Claims: Imperial Metals Corporation

Operator: Imperial Metals Corporation

Author of Report: J.W. Morton

Date: June 1985

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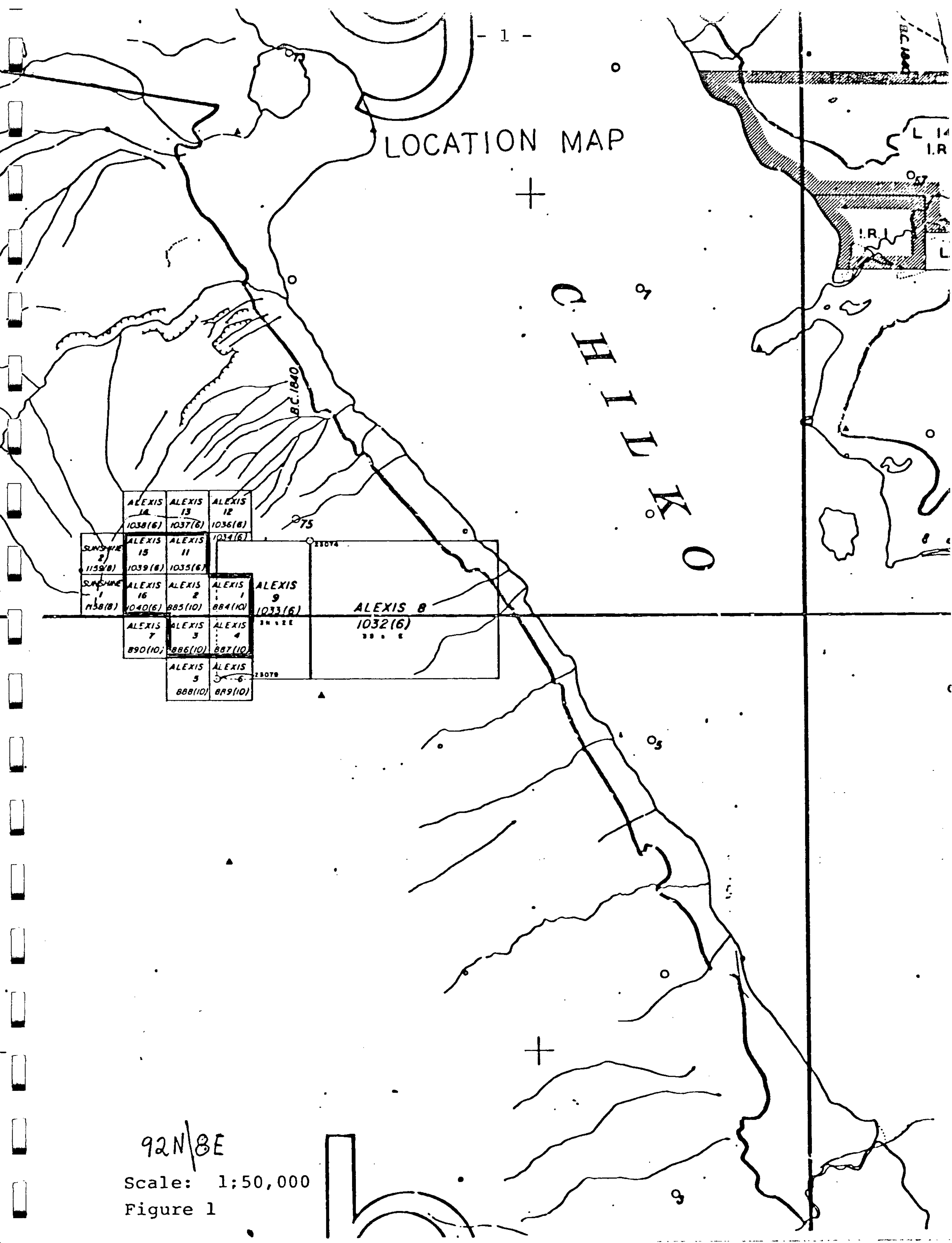

Scale: 1:50,000

Figure 1

INTRODUCTION

Location and Physiographic Position

The Alexis Claim group consists of a group of 36 claim units located west of Chilko Lake in west central British Columbia. The claims occur on the extreme north-eastern edge of a lobe of the Coast Mountain complex. The claims occupy a landscape ranging from 1175 meters (3,800 feet) to 2,300 meters (7,500 feet). The present showings, "The Knob and The Ridge Showings", both outcrop at an elevation of 2,075 meters (6,800 feet). The claim group is accessible by the Nemaiah Road which terminates immediately across Chilko Lake approximately 4 kilometers from the claim group or by the Wilderness Lake Branch of the Tatlyoko Road. The Wilderness Lake branch road presently terminates approximately 13 kilometers northwest of the claim group. The total area of the Alexis claim group, removing overlap, is approximately 825 hectares (2,000 acres).

Property Definition

History

The "Knob Showing" was discovered by J. William MORTON several years ago and was sampled and staked in 1980. Attention to this showing was originally directed by the presence of a large limonitic breccia zone. This breccia was observed to be heterolithologic and contained sporadic malachite and azurite staining and visible cinnebar. A high component of chalcedony and the presence of vuggy textures developed within an extensive vein breccia was inferred to be indicative of an epithermal hydrothermal system. Select samples of visibly mineralized breccia from this showing were found to range from 5,000 to 7,000 parts per million copper, 5 to 20 parts per million silver and greater than 10,000 parts per billion mercury. Assay results of this material have yielded values up to 1.47% Cu, 0.400% Hg, 0.389% Sb and 0.48 oz/ton Ag.

Subsequent geochemical and geological investigations of this property have established that an epithermal volcanogenic system exists.

Property Geology

The Alexis claim group occurs within a region dominated by Upper Cretaceous volcanics of intermediate to basic composition and Upper Cretaceous clastic

Property Geology Cont'd

sediments consisting of wackes, quartzites, siltstones and conglomerates. Several northwest trending parallel fault systems including the Tchaikazan Fault occur in the vicinity of the claim group. The Morris Mine, which achieved production in the 1920's, is located 13 kilometers (8 miles) due west of the "Knob Showing", at the southern end of Tatlayoko Lake. Mineralization at the Morris Mine consisted of two auriferous and argentiferous veins. The principle vein of the Morris Mine averaged 3 feet in width and 850 feet in strike. It contained an average grade of 0.30 oz/ton gold, 3.2 oz/ton silver, 0.9% arsenic and 2.1% antimony.

Five Tertiary ? intrusives are mapped by Tipper as ocurring within ten miles of the Alexis Prospect. These intrusives essentially circle the prospect and suggest that the age of the deposit may likewise be Tertiary.

Alteration and tectonism established on the basis of the limited field mapping and petrographic work completed includes:

- Intense carbonate alteration,
- Well developed argillic alteration,
- Quartz, calcite and barite multiphase veining,
- Strong silicification,
- Multiphase brecciation (slickenslides occurring within the breccia zone indicate that fault dislocations have been numerous and have occurred in several directions).

Summary of Work Completed

Drill core originating from a 1981 drill program (results unfiled) was selectively resampled and geochemically analysed.

Diamond drill holes DDH 1, DDH 2 and DDH 3 were undertaken on claims Alexis 1 and Alexis 2.

Diamond drill core originating from the 1981 program is all BQ in size and is all stored at the Bunting Lake Ranch near 150 Mile House, B.C.

Results and Conclusions

Drill logs, geochemical certificates and petrographical descriptions are

Results and Conclusions Cont'd

included in the appendix of this report. Anomalous mercury values occur in several samples although results for precious metals are disappointingly low. While it is conceivable that the drill results may reflect a level above precious metal mineralization no further work in the area of the 1981 drilling is recommended. The untested ridge showing, occurring approximately 500 meters to the northwest, may still warrant drill testing.

GEOCHEMICAL RESULTS

DRILL HOLE #	INTERVAL M	MERCURY PPB	ARSENIC PPM	ANTIMONY PPB	GOLD PPB	SILVER PPM	CALCIUM %
DDH-1	10 - 15	590	8	2	1	.1	0.69
DDH-1	70 - 75	260	267	4	1	.2	1.04
DDH-1	100 - 104	5600	28	3	1	.3	0.62
DDH-1	104 - 106	480	16	2	2	.3	4.14
DDH-1	195 - 200	140	20	2	2	.1	1.53
DDH-1	200 - 205	20	17	2	1	.1	2.89
DDH-1	215 - 220	130	19	8	1	.2	2.10
DDH-1	220 - 225	60	14	4	2	.1	1.88
DDH-1	283 - 288	80	23	17	3	.1	2.43
DDH-2	10 - 20	4800	15	2	1	.1	1.91
DDH-2	295 - 300	170	2	7	2	.1	4.42
DDH-3	5 - 15	930	21	2	1	.1	3.01
DDH-3	195 - 200	9200	18	3	1	.1	10.66
DDH-3	200 - 205	170	6	4	1	.1	4.85
DDH-3	265 - 270	30	4	2	1	.1	4.03
DDH-3	270 - 275	40	2	3	2	.1	3.77
DDH-3	275 - 280	70	2	5	1	.1	4.23
DDH-3	280 - 285	40	2	2	2	.1	4.20
DDH-3	285 - 290	540	5	5	1	.1	4.35
DDH-3	290 - 295	120	17	8	2	.1	3.59
DDH-3	295 - 300	80	11	5	1	.1	3.55

COSTS

Manpower J.W. Morton	May 27, June 3, 1985	2 days @ $200/day	$ 400
Travel & Vehicle Costs			200
Analytical Costs			355
Report Preparation			250
			$ 1,205

AUTHOR QUALIFICATIONS

I, JAMES W. MORTON, CERTIFY THE FOLLOWING:

1. I graduated from Carelton University in 1971 with a Bachelor of Science in Geology.
2. I graduated from the University of British Columbia in 1976 with a Master of Science in Soil Science.
3. I have worked for various mining and exploration companies since 1968.
4. I am presently a permanent staff geologist with Imperial Metals Corporation of Vancouver, B.C.
5. I supervised the work described in this report.

J.W. Morton,
Geologist

ACME ANALYTICAL LABORATORIES LTD.   852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6   PHONE 253-3158   DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: CORE   AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.   HG ANALYSIS BY FLAMLESS AA.

DATE RECEIVED: JUNE 5 1985 DATE REPORT MAILED: June 12/85 ASSAYER. .... DEAN TOYE OR TOM SAUNDRY. CERTIFIED B.C. ASSAYER

IMPERIAL METALS CORPORATION PROJECT - ALEXIS FILE # 85-0811   PAGE 1

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm
AX-DDH-1 0-15	1	24	2	62	.1	67	13	557	2.29	8	5	ND	1	25	1
AX-DDH-1 70-75	2	43	11	98	.2	74	20	604	2.82	267	5	ND	1	69	1
AX-DDH-1 100-104	1	28	5	49	.3	18	7	403	2.35	28	5	ND	1	48	1
AX-DDH-1 104-106	1	11	6	58	.3	16	7	894	3.05	16	5	ND	2	120	1
AX-DDH-1 195-200	1	71	2	70	.1	17	20	952	4.38	20	5	ND	1	101	1
AX-DDH-1 200-205	1	54	14	77	.1	17	20	1437	4.60	17	5	ND	1	100	1
AX-DDH-1 215-220	1	48	2	77	.2	6	17	1175	5.24	19	5	ND	1	88	1
AX-DDH-1 220-225	1	46	2	69	.1	7	15	1111	5.33	14	5	ND	1	94	1
AX-DDH-1 283-286	1	66	2	88	.1	11	20	1167	5.68	23	5	ND	1	128	1
AX-DDH-2 10-20	1	50	6	99	.2	54	15	967	4.75	15	5	ND	1	93	1
AX-DDH-2 295-300	1	41	7	75	.1	9	16	1047	4.69	2	5	ND	2	173	1
AX-DDH-3 5-15	1	19	5	56	.1	34	8	668	2.75	21	5	ND	1	67	1
AX-DDH-3 195-200	1	30	7	68	.1	11	15	890	3.88	18	5	ND	4	173	1
AX-DDH-3 200-205	1	37	8	86	.1	16	16	785	3.76	6	6	ND	1	253	1
AX-DDH-3 265-270	1	37	2	83	.1	11	14	909	3.81	4	5	ND	1	211	1
AX-DDH-3 270-275	1	42	2	79	.1	9	13	739	3.26	2	5	ND	1	185	1
AX-DDH-3 275-280	1	19	7	86	.1	9	14	797	3.36	2	5	ND	1	206	1
AX-DDH-3 280-285	1	24	2	76	.1	10	13	854	3.54	2	5	ND	1	181	1
AX-DDH-3 285-290	1	41	2	88	.1	10	16	845	3.66	5	5	ND	1	181	1
AX-DDH-3 290-295	1	48	7	66	.1	9	14	851	3.98	17	5	ND	1	218	1
AX-DDH-3 295-300	1	59	8	69	.3	8	15	867	4.46	11	6	ND	1	162	1
STD C/AU 0.5	21	61	41	137	6.8	69	29	1157	3.92	39	16	8	37	57	17

SAMPLE#	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb	Hg ppb
AX-DDH-1 0-15	2	2	35	.69	.04	2	40	.08	96	.01	39	.45	.01	.09	1	1	590
AX-DDH-1 70-75	4	2	27	1.04	.02	2	13	.54	44	.01	35	.31	.01	.08	1	1	260
AX-DDH-1 100-104	3	2	28	.62	.04	3	14	.24	38	.01	20	.39	.01	.10	1	1	5600
AX-DDH-1 104-106	2	2	24	4.14	.02	2	9	1.31	21	.01	26	.24	.01	.04	1	2	480
AX-DDH-1 195-200	2	2	113	1.53	.08	4	43	2.06	41	.14	34	1.56	.10	.06	1	2	140
AX-DDH-1 200-205	2	2	108	2.89	.08	11	40	1.93	47	.07	49	1.47	.14	.04	1	1	20
AX-DDH-1 215-220	8	2	91	2.10	.08	7	5	1.02	30	.08	33	.53	.01	.06	1	1	130
AX-DDH-1 220-225	4	2	91	1.88	.05	2	4	.78	38	.05	9	.51	.01	.07	1	2	60
AX-DDH-1 283-286	17	2	137	2.43	.08	5	15	1.02	56	.02	38	.55	.01	.06	1	3	80
AX-DDH-2 10-20	2	2	62	1.91	.02	2	21	.41	180	.01	22	.48	.03	.12	1	1	4800
AX-DDH-2 295-300	7	2	79	4.42	.04	6	12	1.88	21	.03	13	.37	.01	.06	1	2	170
AX-DDH-3 5-15	2	2	47	3.01	.03	3	30	.30	58	.01	27	.29	.01	.05	1	1	930
AX-DDH-3 195-200	3	2	100	10.66	.02	5	26	1.48	69	.01	28	.37	.01	.02	1	1	9200
AX-DDH-3 200-205	4	2	110	4.85	.03	5	18	1.95	30	.01	27	.36	.01	.03	1	1	170
AX-DDH-3 265-270	2	2	86	4.03	.05	6	5	1.61	41	.01	31	.41	.01	.04	1	1	30
AX-DDH-3 270-275	3	2	84	3.77	.06	5	3	1.60	66	.01	28	.41	.01	.05	1	2	40
AX-DDH-3 275-280	5	2	93	4.23	.05	4	5	1.84	22	.01	27	.38	.01	.04	1	1	70
AX-DDH-3 280-285	2	2	94	4.20	.03	7	3	1.84	21	.01	31	.37	.01	.04	1	2	40
AX-DDH-3 285-290	5	2	94	4.35	.04	7	3	1.89	20	.01	32	.39	.01	.04	1	1	540
AX-DDH-3 290-295	8	2	87	3.59	.05	7	8	1.39	191	.03	30	.42	.01	.04	1	2	120
AX-DDH-3 295-300	5	2	102	3.55	.07	5	8	1.67	15	.05	13	.39	.01	.04	1	1	80
STD C/AU 0.5	15	23	61	.48	.15	40	59	.88	179	.08	42	1.71	.07	.12	11	510	1400

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

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AX-DDH-1 0-15	1	24	2	62	.1	67	13	557	2.29	8	5	ND	1	25	1	2	2	35	.69	.04	2	40	.08	96	.01	39	.45	.01	.09	1	1	590
AX-DDH-1 70-75	2	43	11	98	.2	74	20	604	2.82	267	5	ND	1	69	1	4	2	27	1.04	.02	2	13	.54	44	.01	35	.31	.01	.08	1	1	260
AX-DDH-1 100-104	1	28	5	49	.3	18	7	403	2.35	28	5	ND	1	48	1	3	2	28	.62	.04	3	14	.24	38	.01	20	.39	.01	.10	1	1	5600
AX-DDH-1 104-106	1	11	6	58	.3	16	7	894	3.05	16	5	ND	2	120	1	2	2	24	4.14	.02	2	9	1.31	21	.01	26	.24	.01	.04	1	2	480
AX-DDH-1 195-200	1	71	2	70	.1	17	20	952	4.38	30	5	ND	1	101	1	2	2	113	1.53	.08	4	43	2.06	41	.14	34	1.56	.10	.06	1	2	140
AX-DDH-1 200-205	1	54	14	77	.1	17	20	1437	4.60	17	5	ND	1	100	1	2	2	108	2.89	.08	11	40	1.93	47	.07	49	1.47	.14	.04	1	1	20
AX-DDH-1 215-220	1	48	2	77	.2	6	17	1175	5.24	19	5	ND	1	88	1	8	2	91	2.10	.08	7	5	1.02	30	.08	33	.53	.01	.06	1	1	130
AX-DDH-1 220-225	1	46	2	69	.1	7	15	1111	5.33	14	5	ND	1	94	1	4	2	91	1.88	.05	2	4	.78	38	.05	9	.51	.01	.07	1	2	60
AX-DDH-1 283-288	1	66	2	88	.1	11	20	1167	5.68	23	5	ND	1	128	1	17	2	137	2.43	.08	5	15	1.02	56	.02	38	.55	.01	.06	1	3	80
AX-DDH-2 10-20	1	50	6	99	.2	54	15	967	4.75	15	5	ND	1	93	1	2	2	62	1.91	.02	2	21	.41	180	.01	22	.48	.03	.12	1	1	4800
AX-DDH-2 295-300	1	41	7	75	.1	9	16	1047	4.69	2	5	ND	2	173	1	7	2	79	4.42	.04	6	12	1.86	21	.03	13	.37	.01	.06	1	2	170
AX-DDH-3 5-15	1	19	5	56	.1	34	8	668	2.75	21	5	ND	1	67	1	2	2	47	3.01	.03	3	30	.30	58	.01	27	.29	.01	.05	1	1	930
AX-DDH-3 195-200	1	30	7	68	.1	11	15	890	3.88	18	5	ND	4	173	1	3	2	100	10.66	.02	5	26	1.48	69	.01	28	.37	.01	.02	1	1	9200
AX-DDH-3 200-205	1	37	8	86	.1	16	16	785	3.76	6	6	ND	1	253	1	4	2	110	4.85	.03	5	18	1.95	30	.01	27	.36	.01	.03	1	1	170
AX-DDH-3 265-270	1	37	2	83	.1	11	14	909	3.81	4	5	ND	1	211	1	2	2	86	4.03	.05	6	5	1.61	41	.01	31	.41	.01	.04	1	1	30
AX-DDH-3 270-275	1	42	2	79	.1	9	13	739	3.26	2	5	ND	1	185	1	3	2	84	3.77	.06	5	3	1.60	66	.01	28	.41	.01	.05	1	2	40
AX-DDH-3 275-280	1	19	7	86	.1	9	14	797	3.36	2	5	ND	1	206	1	5	2	93	4.23	.05	4	5	1.84	22	.01	27	.38	.01	.04	1	1	70
AX-DDH-3 280-285	1	24	2	76	.1	10	13	854	3.54	2	5	ND	1	181	1	2	2	94	4.20	.03	7	3	1.84	21	.01	31	.37	.01	.04	1	2	40
AX-DDH-3 285-290	1	41	2	88	.1	10	16	845	3.66	5	5	ND	1	181	1	5	2	94	4.35	.04	7	3	1.89	20	.01	32	.39	.01	.04	1	1	540
AX-DDH-3 290-295	1	48	7	66	.1	9	14	851	3.98	17	5	ND	1	218	1	8	2	87	3.59	.05	7	8	1.39	191	.03	30	.42	.01	.04	1	2	120
AX-DDH-3 295-300	1	59	6	69	.3	8	15	867	4.46	11	6	ND	1	162	1	5	2	102	3.55	.07	5	8	1.67	15	.05	13	.39	.01	.04	1	1	80
STD C/AU 0.5	21	61	41	137	6.8	69	29	1157	3.92	39	16	8	37	57	17	15	23	61	.48	.15	40	59	.88	179	.08	42	1.71	.07	.12	11	510	1400

Sample #	Footage From	Footage To	Meterage From	Meterage To	Lithology	Alteration & Mineralization	Structure
38001	11.5	12	3.5	3.7	green silicified porphyry	5% pyrrhotite, silicified, 10% limonite	
	12	13	3.7	4.0	qtz. wacke	2% pyrite, 5% limonite	fractured at 45° to core axis
	13	17.5	4.0	5.3	fine grained wacke		
38002	17.5	21	5.3	6.4	red mudstone	10% limonite	
	21	22	6.4	6.7	grey mudstone	10% limonite	
	22	26	6.7	8.0	red mudstone		massively brecciated
	26	27.5	8.0	8.4	fault gouge		fault
38003	27.5	32	8.4	9.8	limonitie grey altered volcanic		
	32	34	9.8	10.3	hard silicified grey felsic volcanic		qtz.-calcite veins
	34	37.5	10.3	11.4	hard silicified grey volcanic breccia	stibnite barite residual sulfide ghosts	qtz.-calcite veins
38004	37.5	42	11.4	12.8	hard silicified grey volcanic breccia	stibnite? barite? residual sulfide ghosts	qtz.-calcite veins 60° to core axis
	42	42.5	12.8	13.0	black brown limonitic sooty material		fault
	42.5	45	13.0	13.7	gouge	serpentine	fault
	45	47.5	13.7	14.5	talc		fault zone

...mple #	Footage From	Footage To	Meterage From	Meterage To	Lithology	Alteration & Mineralization	Structure
38005	47.5	53	14.5	16.2	talc rich limonitic breccia	10% limonite	breccia
	53	57.5	16.2	17.5	heterolithologic breccia	10% limonite, silicified	micro qtz.-calcite, veins at 30° to core axis
38006	57.5	64	17.5	19.5	dark grey mudstone		
	64	64.5	19.5	19.7	cherty wacke		
	64.5	67.5	19.7	20.6	heterolithologic breccia	10% limonite	
38007	67.5	70	20.6	21.3	talc		
	70	73	21.3	22.3	heterolithologic breccia	10% limonite, minor malachite	breccia
	73	77.5	22.3	23.6	heterolithologic breccia		
38008	77.5	79	23.6	24	heterolithologic breccia		
	79	80	24.0	24.4	brown fault gouge		fault zone
	80	82	24.4	25.0	quartzite		calcite veining at 70° to core axis
	82	82.5	25.0	25.1	fault gouge		fault zone
	82.5	85	25.1	25.9	quartzite		small fault at 90° to core axis
	85	87	25.9	26.5	impure quartzite	10% limonite	calcite micro veins at 15° to core axis

ample #	Footage From	Footage To	Meterage From	Meterage To	Lithology	Alteration & Mineralization	Structure
38009	87	88	26.5	26.8	fault gouge		fault
	88	91	26.8	27.7	impure quartzite	10% limonite	
	91	94	27.7	28.7	heterolithologic breccia	10% limonite	
	94	96.5	28.7	29.4	mudstone with limonitic-calcite veins		limonitic-calcite veins
	96.5	97	29.4	29.6	heterolithologic breccia (predominantly sediments)		breccia
38010	97	102	29.6	31.1	heterolithologic breccia (predominantly sediments)	20% hematite	breccia
	102	104	31.1	31.7	mudstone		
	104	106	31.7	32.3	heterolithologic breccia	barite, 10% limonite	breccia
	106	107	32.3	32.6	argillite		
38011	107	110	32.6	33.5	brecciated mudstone	10% limonite	contact approximately 45° to core axis
	110	115	33.5	35.0	impure quartzite	20% limonite	slickensided fractures 45° to core axis
	115	117	35.0	35.7	impure quartzite	10% limonite	slickensided fractures 45° to core axis

APPENDIX 4

Sample #	Footage From	Footage To	Meterage From	Meterage To	Lithology	Alteration & Mineralization	Structure
38012	117	124	35.7	37.8	impure quartzite	10% limonite	slickensided fractures 60° to core axis
	124	125	37.8	38.1	impure quartz wacke		
	125	127	38.1	38.7	grey carbon rich feldspathic wacke		
38013	127	128	38.7	39.0	quartz wacke	2% pyrite, minor graphite?, barite, 10% limonite	limonite fractures 70° to core axis
	128	137	39.0	41.8	quartz wacke		
38014	137	141	41.8	43.0	quartz wacke	minor malachite	
	141	142	43.0	43.3	fault fracture zone		fault zone
	142	146	43.3	44.5	quartz wacke		
	146	147	44.5	44.8	fault gouge		fault zone
38015	147	149	44.8	45.4	impure mudstone		fault at 60° to core axis
	149	156.5	45.4	47.7	impure mudstone		multitude of qtz. calcite micro veins
	156.5	157	47.7	47.9	altered red volcanic (andesite)		multitude of qtz. calcite micro veins
38016	157	159	47.9	48.5	altered red volcanic (andesite)		
	159	160	48.5	48.8	grey mudstone		
	160	163	48.8	49.7	bleached andesite tuff	5% pyrite, calcite, qtz.	
	163	167	49.7	50.9	red andesite	2% pyrite, malachite straining	

Sample #	Footage From	Footage To	Meterage From	Meterage To	Lithology	Alteration & Mineralization	Structure
38017	167	174	50.9	53.0	red andesite tuff breccia with qtz. veins	sericite	mico stockwork of qtz.-calcite veins
	174	177	53.0	53.9	red andesite tuff breccia with qtz. veins	sericite	
38018	177	182	53.9	55.5	brown andesite tuff breccia		
	182	186	55.5	56.7	red andesite tuff breccia	10% limonite	qtz. micro veins
	186	187	56.7	57.0	fault gouge		fault
38019	187	192	57.0	58.5	fault gouge		
	192	197	58.5	60.0	greenish aphanitic felsic volcanic tuff		qtz.-calcite micro veins
38020	197	207	60.0	63.1	greenish aphanitic felsic volcanic tuff	epidote, calcite veining	
38021	207	209	63.1	63.7	grey aphanitic felsic volcanic tuff	epidote	calcite veining
	209	216	63.7	65.8	grey to red andesite porphyry	silicified	qtz. veins at 80° to core axis
	216	217	65.8	66.1	grey to red andesite porphyry	silicified, cinnebar	fracture planes at 10° to core axis
38022	217	227	66.1	69.2	purple andesitic porphyry	10% limonite	qtz. micro veins at 45° to core axis
38023	227	233	69.2	71.0	purple andesite porphyry	10% limonite, 3% pyrite, cinnebar	qtz. micro veins
	233	237	71.0	72.2	purple andesite porphyry	10% limonite, 3% pyrite, cinnebar	qtz. micro veins

ample #	Footage From	Footage To	Meterage From	Meterage To	Lithology	Alteration & Mineralization	Structure
38024	237	238	72.2	72.5	vein of qtz.-calcite	3% pyrite, limonite straining	vein
38025	238	246	72.5	75.0	brown andesite porphyry		qtz.-calcite micro veins
	246	248	75.0	75.6	grey andesite porphyry	silicified, sericite	
38026	248	253	75.6	77.1	grey brown andesite porphyry		stockwork of limonite-qtz. micro veins
38027	253	258	77.1	78.6	grey brown andesite porphyry		stockwork of limonite-qtz. micro veins
	258	260	78.6	79.2	vein of qtz.-calcite	black metallic	vein
38028	260	265	79.2	80.8	dark (qtz.) andesite porphyry		few clear qtz.-calcite micro vei
38029	265	270	80.8	82.3	brown andesite porphyritic tuff breccia	10% limonite	stockwork of qtz.-calcite veins
38030	270	280	82.3	85.3	brown andesite porphyritic tuff breccia		few clear qtz.-calcite veins
38031	280	288	85.3	87.8	brown andesite porphyritic tuff breccia	5% limonite	10 mm qtz. veins at 10°, 45° and 60° to core axis

APPENDIX 7

ample #	Footage From	To	Meterage From	To	Lithology	Alteration & Mineralization	Structure
38068	8.5	18	2.6	5.5	limonitic calcareous breccia	calcite, 20% limonite, minor cinnebar	heterolithologi breccia
38069	18	28	5.5	8.5	limonitic calcareous breccia	calcite, 20% limonite, minor cinnebar	
38070	28	38	8.5	11.6	brecciated grey mudstone		calcite micro-veins
38071	38	48	11.6	14.6	brecciated grey mudstone	10% limonite, dark sulfide?	calcite micro-veins
38072	48	54.5	14.6	16.6	brecciated grey mudstone	10% limonite, dark sulfide?	calcite micro-veins
	54.5	58	16.6	17.7	purple volcanic	bleached (kaolinized)	
38073	58	63	17.7	19.2	purple volcanic	bleached (kaolinized)	
	63	68	19.2	20.7	heterolithologic breccia with sediments	20% limonite, black metallic	
38074	68	78	20.7	23.8	heterolithologic breccia with sediments	20% limonite, black metallic	
38075	78	82	23.8	25.0	heterolithologic breccia with sediments	20% limonite, black metallic	
	82	88	25.0	26.8	fine grained black unit? volcanic?	minor cinnebar, 10% limonite	brecciated
38076	88	98	26.8	29.9	heterolithologic breccia	10% limonite cinnebar	
38077	98	108	29.9	32.9	heterolithologic breccia	10% limonite, cinnebar, black metallic	

ample #	Footage From	To	Meterage From	To	Lithology	Alteration & Mineralization	Structure
38078	108	113	32.9	34.4	heterolithologic breccia	10% limonite, cinnebar black metallic	
	113	116	34.4	35.4	altered purple volcanic?		
	116	118	35.4	36.0	heterolithologic breccia	cinnebar	
38079	118	128	36.0	39.0	grey volcanic felsic	10% limonite, dark metallic	
38080	128	130	39.0	39.6	grey volcanic felsic	10% limonite, dark metallic	
38081	130	138	39.6	42.0	meta fspar wacke	2% arsenopyrite	
	138	139	42.0	42.4	meta fspar wacke		
	139	146	42.4	44.5	meta mudstone	minor cinnebar	
	146	148	44.5	45.1	altered purple volcanic?		partially brecciated calcite veining
38082	148	158	45.1	48.2	altered purple volcanic?		partially brecciated calcite veining
38083	158	160	48.2	48.8	altered purple volcanic?		partially brecciated calcite veining
	160	163	48.8	49.7	altered purple volcanic		
	163	165	49.7	50.3	altered quartzite		
	165	168	50.3	51.2	heterolithologic	25% limonite, bleached, dark metallic	breccia

ample #	Footage From	To	Meterage From	To	Lithology	Alteration & Mineralization	Structure
38084	168	170	51.2	51.8	heterolithologic breccia	25% limonite, bleached dark metallic	breccia
	170	173.5	51.8	52.9	dark grey andesite porphyry	silicified, dark metallic	
	173.5	178	52.9	54.3	dark brown andesite porphyry with veining	cinnebar, black metallic	more qtz.-calcit micro veins
38085	178	183	54.3	55.8	dark brown andesite porphyry with veining	cinnebar, black metallic	more qtz.-calcit micro veins
	183	185	55.8	56.4	heavily brecciated limonitic porphyry	20% limonite	
	185	188	56.4	57.3	dark brown porphyry with veining	silicified, cinnebar black metallic	qtz.-calcite micro veins
38086	188	192	57.3	58.5	dark brown porphyry with veining	silicified, cinnebar black metallic plus arsenopyrite	
	192	193	58.5	58.8	fault gouge	bleached	fault
	193	194	58.8	59.1	andesite porphyry		
	194	195	59.1	59.4	fault gouge		fault
	195	198	59.4	60.4	brown andesite porphyry	grey black metallic galena?	
38087	198	203	60.4	61.9	brown andesite porphyry	cinnebar, 10% pyrite	
	203	208	61.9	63.4	brown andesite porphyry	cinnebar, 10% pyrite	
38088	208	213	63.4	64.9	brown andesite porphyry	cinnebar, 15% pyrite	
	213	218	64.9	66.4	brown andesite porphyry	cinnebar, 15% pyrite	

Sample #	Footage		Meterage		Lithology	Alteration & Mineralization	Structure
	From	To	From	To			
38089	218	220	66.4	67.0	brown andesite porphyry	cinnebar, 15% pyrite	
	220	227	67.0	69.2	brown andesite porphyry	cinnebar, 15% pyrite	
	227	228	69.2	69.5	limonite breccia	50% limonite	hydrothermal channel
38090	228	229	69.5	69.8	limonite breccia	50% limonite	hydrothermal channel
	229	238	69.8	72.5	potassium rich andesite porphyry with qtz.-calcite veins	silicified, cinnebar	
38091	238	239	72.5	72.8	limonitic hydro-thermal channel	50% limonite	hydrothermal channel
38092	239	248	72.8	75.6	grey volcanic felsic unit with qtz.-calcite veining		qtz.-calcite micro veins
38093	248	258	75.6	78.6	brown andesite porphyry with micro veins of qtz.-calcite	dark metallic	
38094	258	278	78.6	84.7	brown andesite porphyry with micro veins of qtz.-calcite	cinnebar, 10% pyrite	
38095	278	288	84.7	87.8	black andesite porphyry with micro veins of qtz.		
38096	288	293	87.8	89.3	black andesite porphyry with micro veins of qtz.	black metallic	
	293	303	89.3	92.4	black andesite porphyry with micro [illegible]s o[illegible]tz.	minor cinnebar	

Sample #	Footage From	Footage To	Meterage From	Meterage To	Lithology	Alteration & Mineralization	Structure
38032	5	15	1.5	4.6	molithologic breccia composed of cherty wacke fragments	limonitic, carbonate	numerous fractures approximately 15° to core axis
38033	15	25	4.6	7.6	molithologic breccia composed of cherty wacke fragments	limonitic, carbonate	numerous fractures approximately 15° to core axis
38034	25	27	7.6	8.2	molithologic breccia composed of cherty wacke fragments	limonitic, carbonate	1 cm wide calcite vein approximately 60° to core axis
	27	30	8.2	9.1	molithologic breccia composed of cherty wacke fragments	limonitic, carbonate	1 cm wide calcite vein approximately 60° to core axis
38035	30	40	9.1	12.2	pyritic muddy wacke	30% hematite, pyrite	
38036	40	43	12.2	13.1	pyritic muddy wacke	30% hematite, pyrite	
	43	50	13.1	15.2	light grey silicified mudstone	silicified, 20% limonite, pyrite	
38037	50	52	15.2	15.8	talc zone (grey)	to talc	brecciated
	52	60	15.8	18.3	purple brown mudstone or altered volcanic	limonite 20%, cinnebar	brecciated
38038	60	70	18.3	21.3	heterolithologic breccia	20% limonite, pyrite, cinnebar	hydrothermal channel
38039	70	72	21.3	21.9	heterolithologic breccia	20% limonite, pyrite, cinnebar	hydrothermal channel
	72	80	21.9	24.4	dark andesitic porphyry	pink carbonate, silicified, 10% limonite 5% pyrite	qtz.-calcite micro veins

Sample #	Footage From	Footage To	Meterage From	Meterage To	Lithology	Alteration & Mineralization	Structure
38040	80	90	24.4	27.4	andesite tuff breccia with qtz. veins	5% pyrite	vein breccia
38041	90	97	27.4	29.6	andesite tuff breccia with qtz. veins	5% pyrite	vein breccia
	97	98	29.6	29.9	andesite tuff breccia with qtz. veins	5% pyrite, cinnebar, minor malachite	qtz.-calcite micro veins
	98	100	29.9	30.5	andesite tuff breccia with qtz. veins	10% pyrite	qtz.-calcite micro veins
38042	100	110	30.5	33.5	andesite tuff breccia	10% pyrite, cinnebar, malachite	qtz.-calcite micro veins
38043	110	120	33.5	36.6	andesite tuff breccia	5% pyrite	less veining
38044	120	130	36.6	39.6	andesite tuff breccia	3% pyrite	less veining
38045	130	132	39.6	40.2	no core recovery		
	132	140	40.2	42.7	andesite tuff breccia with qtz. veins	silicified	
38046	140	150	42.7	45.7	andesite tuff breccia	chlorite	qtz. micro veins
38047	150	158	45.7	48.2	andesite tuff breccia	chlorite	qtz. micro veins
	158	160	48.2	48.8	silicified andesite tuff breccia	silicified	
38048	160	166	48.8	50.6	dark grey brown andesite porphyry	qtz., sericite	
	166	170	50.6	51.8	silicified dark grey brown porphyry	silicified	few qtz.-calcite veins
38049	170	180	51.8	54.9	silicified dark grey brown porphyry	silicified, limonite	more qtz.-calcite veins
38050	180	190	54.9	57.9	silicified dark grey brown porphyry	silicified, limonite	more qtz.-calcite veins

Sample #	Footage From	Footage To	Meterage From	Meterage To	Lithology	Alteration & Mineralization	Structure
38040	80	90	24.4	27.4	andesite tuff breccia with qtz. veins	5% pyrite	vein breccia
38041	90	97	27.4	29.6	andesite tuff breccia with qtz. veins	5% pyrite	vein breccia
	97	98	29.6	29.9	andesite tuff breccia with qtz. veins	5% pyrite, cinnebar, minor malachite	qtz.-calcite micro veins
	98	100	29.9	30.5	andesite tuff breccia with qtz. veins	10% pyrite	qtz.-calcite micro veins
38042	100	110	30.5	33.5	andesite tuff breccia	10% pyrite, cinnebar, malachite	qtz.-calcite micro veins
38043	110	120	33.5	36.6	andesite tuff breccia	5% pyrite	less veining
38044	120	130	36.6	39.6	andesite tuff breccia	3% pyrite	less veining
38045	130	132	39.6	40.2	no core recovery		
	132	140	40.2	42.7	andesite tuff breccia with qtz. veins	silicified	
38046	140	150	42.7	45.7	andesite tuff breccia	chlorite	qtz. micro veins
38047	150	158	45.7	48.2	andesite tuff breccia	chlorite	qtz. micro veins
	158	160	48.2	48.8	silicified andesite tuff breccia	silicified	
38048	160	166	48.8	50.6	dark grey brown andesite porphyry	qtz., sericite	
	166	170	50.6	51.8	silicified dark grey brown porphyry	silicified	few qtz.-calcite veins
38049	170	180	51.8	54.9	silicified dark grey brown porphyry	silicified, limonite	more qtz.-calcite veins
38050	180	190	54.9	57.9	silicified dark grey brown porphyry	silicified, limonite	more qtz.-calcite veins

Sample #	Footage From	Footage To	Meterage From	Meterage To	Lithology	Alteration & Mineralization	Structure
38051	190	196	57.9	59.7	heterolithologic breccia	30% limonite	massive brecciation
38052	196	205	59.7	62.5	heterolithologic breccia	30% limonite, silicified, cinnebar	massive brecciation
38053	205	210	62.5	64.0	dark andesite porphyry		qtz. micro veins predominantly 45° to core axis
	210	215	64.0	65.5	dark andesite porphyry	20% limonite	
38054	215	220	65.5	67.1	dark andesite porphyry		
38055	220	225	67.1	68.6	heterolithologic breccia	30% limonite, malachite, tetrahedrite? bleached zone	massively brecciated
38056	225	235	68.6	71.6	andesite porphyry	20% hematite	qtz.-calcite micro veins
38057	235	237	71.6	72.2	andesite porphyry	minor malachite, staining on veins	qtz.-calcite micro veins
	237	245	72.2	74.7	andesite porphyry		qtz.-calcite micro veins
38058	245	255	74.7	77.7	andesite porphyry with qtz.-calcite veins	silicified, cinnebar	
38059	255	265	77.7	80.8	andesite porphyry with qtz.-calcite veins		more microveins
38060	265	275	80.8	83.8	andesite porphyry with qtz.-calcite veins	silicified cinnebar	

Sample #	Footage From	Footage To	Meterage From	Meterage To	Lithology	Alteration & Mineralization	Structure
38061	275	285	83.8	86.9	andesite porphyry with qtz.-calcite veins	silicified, cinnebar black metallic	
38062	285	300	86.9	91.4	andesite porphyry with qtz.-calcite veins	veins stained with malachite at 300'	malachite stained qtz.-calcite vein
38063	300	310	91.4	94.5	andesite porphyry with qtz.-calcite veins	silicified, cinnebar	
38064	310	318	94.5	96.9	andesite porphyry with qtz.-calcite veins	silicified, cinnebar	
	318	320	96.9	97.5	andesite porphyry with qtz.-calcite veins	silicified, cinnebar	bleached hydrothermal channel
38065	320	330	97.5	100.6	andesite porphyry with qtz.-calcite veins	silicified, cinnebar black metallic	
38066	330	340	100.6	103.6	andesite porphyry with qtz.-calcite veins	silicified, cinnebar black metallic	
38067	340	350	103.6	106.7	andesite porphyry with qtz.-calcite veins	silicified, cinnebar black metallic	

Specimen : DDH-3 202'

Classification : Silicified and brecciated tuff-breccia(?)

Mode : The severe alteration which has affected this specimen, in conjunction with the extremely fine grainsize of the groundmass precludes any estimate of the original mode. At present this rock is composed of approximately :

20-25% calcite
30% quartz
5% opaques and Fe-oxides (limonite)
45-50% clayminerals and cryptocrystalline silica.

Handspecimen : Grey, altered, calcite/quartz veined tuff or tuff-breccia (?). Fragments range up to 3 mms. in size and most appear to be sub-angular. Two generations of veins can be distinguished in handspecimen : early, narrow, limonite stained veinlets are cut and sometimes slightly offset by wider, light coloured calcite/quartz veinlets, which locally have more or less brecciated the rock.

Thin section : Judging by it's microscopic character this specimen appears to have been derived from a volcanic sandstone or crystal-lithic tuff in which angular and sub-angular clastic fragments up to 3 mms. in size locally (at bottom of section) form up to 50% of the rock. Only original quartzfragments, which are mostly strained, have been preserved. The rest of the clastic fragments as well as the groundmass are pervasively altered to calcite, limonite and aphanitic claymineral/silica mixtures. Some of the altered domains contain textures suggestive of trachytic flow. On this basis at least a portion of this rock must be considered volcanic in origin, and because of the inhomogeneous nature of the rock as a whole it was probably a tuffaceous type, although the presence of sedimentary material is not ruled out.
A few small flakes of white mica were observed. These are probably of secondary origin.
Calcite/quartz veins, often fine grained with granular textures, cut across the specimen. Earlier, somewhat courser grained calcite veins (without quartz) are cut by the granular veinlets. The arrangement of the late quartz/calcite veinlets in thin section suggests emplacement along a brittle fracture network with overall relatively low inter-fracture angles. Possibly this rock is located in a brittle shear-zone.

Specimen : DDH-2 210'

Classification : Altered, amygdaloidal(?), porphyritic andesite

Mode :	Clayminerals	45%
	Calcite	25%
	Quartz (incl. chalcedony)	20%
	Limonite	5%
	Opaques	5%

Handspecimen : Rusty weathering, altered, limy feldspar porphyry. Small amygdules are visible in handspecimen. These may be of secondary origin. Thin calcite veinlets, possibly representing healed fractures, cut across the specimen.

Thin section : In spite of pervasive alteration, the original nature of this specimen is still clearly visible. Outlines of original plagioclase phenocrysts, now completely altered to secondary clayminerals and limonitic calcite, range up to 2 mms. in size. Their cores are frequently composed of patchy calcite surrounded by very fine grianed clayminerals. Locally it appears as if the phenocrysts are somewhat preferentially oriented, suggesting this rock may have been part of a volcanic flow. The original composition of this rock was probably andesitic.

The original nature of the groundmass is no longer evident, as it is composed entirely of secondary minerals, with the exception perhaps of opaques. Clay-minerals, too fine grained to positively identify, form the bulk of this assemblage. The remainder is composed of patchy, limonitic calcite and fine grained, granular quartz.

Irregular amygdules up to 2 mms. long, are filled with secondary quartz, chalcedony, calcite and clayminerals. These may represent primary filled-in vesicles, or alternatively filled-in secondary cavities. These form from 10-15% of the rock, by estimate.

A calcite vein, which varies somewhat in thickness up to 2 mms., cuts across the section.

Granular opaques, up to .2 mms. in size, are scattered throughout the specimen. Many of the larger grains have euhedral octagonal and triangular shapes.

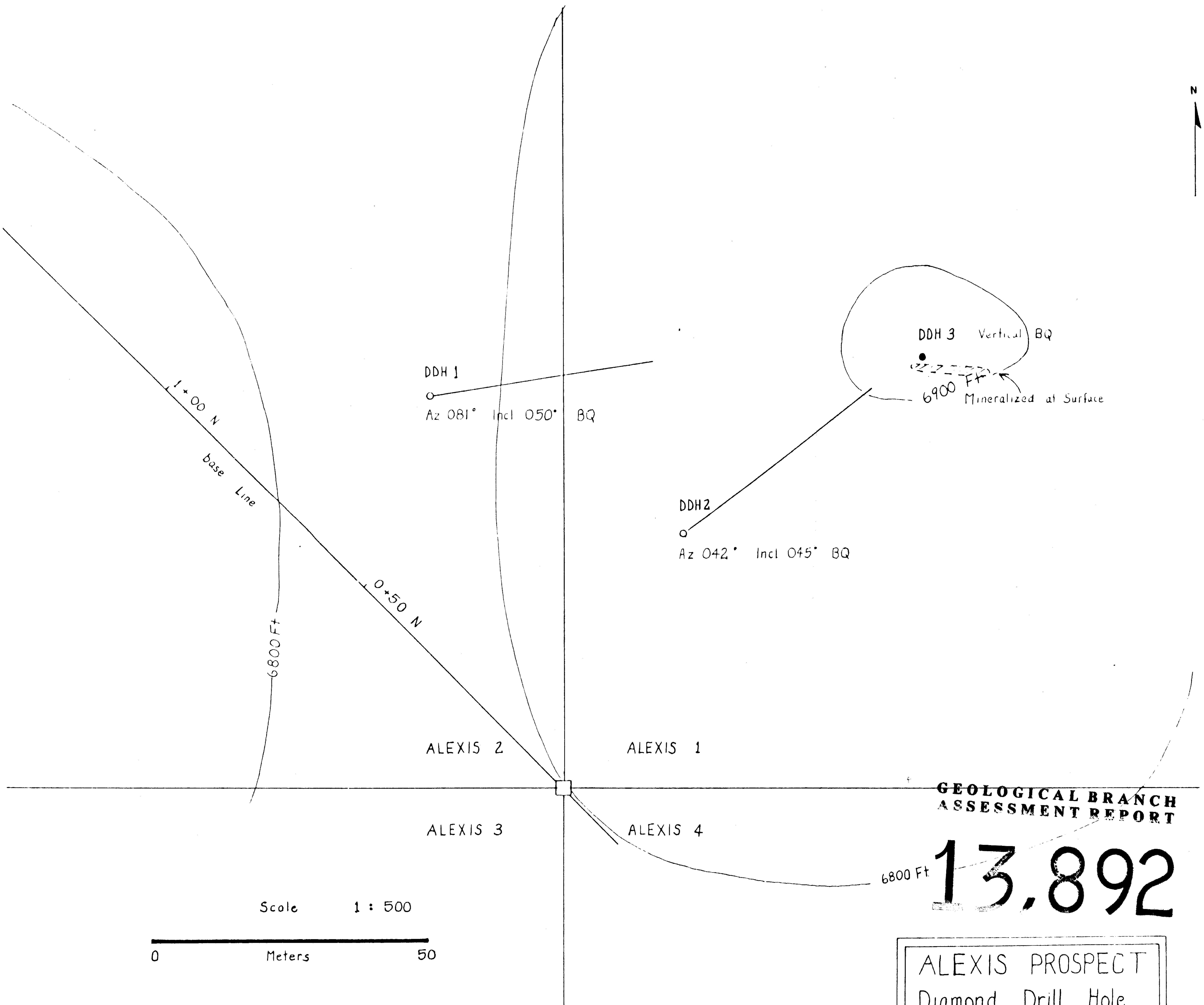
Specimen : DDH-1 203'

Classification : Cataclastic crystal-lithic tuff-breccia(?)

Mode :		
	Plagioclase	40-45%
	Calcite	15-20%
	Chlorite	10%
	Opaques	30%

Handspecimen : Breccia composed of cm. sized black and green fragments, altered and veined (calcite), set in a maroon to brick red, very fine grained matrix. The cut surface of the core specimen clearly shows a cataclastic band of about 1 cm. wide, oriented at a 50 degree angle to the length of the core, along which the fragments have been smeared out into elongate, lenticular shapes. On one side the boundary of this zone is quite sharp, on the other a gradation with relatively unsheared material is visible. The cataclastic texture is clearly of brittle origin.

Thin section : Due to the cataclastic deformation and the severe alteration it is not entirely clear from microscopic examination wether or not the primary lithology was a crystal-lihic tuff-breccia, although I am biased toward this classification because of the inhomogeneous nature of some of the unsheared material. In any case, the rock is clearly of volcanic origin, as it contains numerous relatively homogeneous domains in which altered plagioclase phenocrysts up to 2 mms. in size are set in a rather nondescript, fine grained matrix, which, in it's present state, contains large amounts of secondary calcite, chlorite and granular opaques (mostly hematite). Locally the fine grained material is composed of primary plagioclase microlites with a distinct trachytic texture, suggesting volcanic flow for at least some of the fragments. Others have a more non-directed felted texture. Taken together, the phenocrysts and the matrix suggest a primary andesitic composition. The macroscopically visible cataclastic band id clearly identifiable in thin section as well. Most of the strain has been concentated in lenticular schlieren rich in hematite and chlorite. Calcite, which is pre-kinematic in origin, has recrystallized following cataclastic deformation. Granular fragments of resistant but broken feldspar are scattered throughout the sheared material. Undeformed domains of volcanic material occur as lenses isolated by these shear-zones.



ALEXIS PROSPECT
Diamond Drill Hole
Locations

Figure 2