

Luca Riccio, Ph.D.
Geological Consultant

November 11, 1986

861402

1440 Paisley Rd.
North Vancouver, B.C.
V7R 1C3

Phone: (604) 980-7352

To: J. Dawson
From: L. Riccio
Re: Notes on the Big Property.

Detailed, 1:1000 scale mapping, along the last 350m of the South Access Road shows two main lithologic packages.

- 1) A "Porphyry" Unit
- 2) A Pyroclastic Sequence.

The "Porphyry" Unit consists essentially of one or more "feldspar" porphyry bodies which have undergone variable alteration, mineralization, fracturing, silicification and veining. Two main types of veining are recognizable: 1) Quartz-vein stockworks consisting of 1 to 20mm subparallel to mutually crosscutting individual quartz veinlets with minor amounts of limonite and sulphides (pyrite) and 2) Pyrite-filled fractures with thin "propylitic"? envelopes. The best quartz stockwork is developed between station 55+00 and the end of the road. At some localities intervals with quartz vein densities of 10 to 20% are not uncommon. Pyrite-filled fractures are more common to the east of the quartz stockwork zone and overall pyrite content seem to increase correspondingly, possibly indicating some kind of zonation. In the pyrite-enriched zone there are portions of massive-looking porphyry which contain up to 5% pyrite throughout.

The whole "porphyry" section is variably but generally intensely fractured and locally sheared. Limonite-filled fractures, limonitized zones, and manganese staining characterize portions of this unit.

The "Pyroclastic" Sequence consists of crystal and crystal -rich tuffs, lapilli tuffs and tuff breccias. The coarser grained varieties contain a variety of rock fragments such as flow-banded rhyolite, porphyry, as well as pumice blebs now converted to a white, powdery kaolin-rich mixture. The pyroclastic sequence has a slabby, fractured appearance and is characteristically yellowish brown to reddish on weathered surfaces. Some of the finer grained varieties of crystal tuffs are composed of small quartz eyes set in a greyish, sericitized matrix (could this rock be, if silicified, the "quartz-eye" porphyry?).

The pyroclastic sequence, which has been mapped to station 53+00, extends at least as far as the switchback at station 50+50. This sequence, as seen on the road cut, does not appear to have undergone hydrothermal alteration or mineralization.

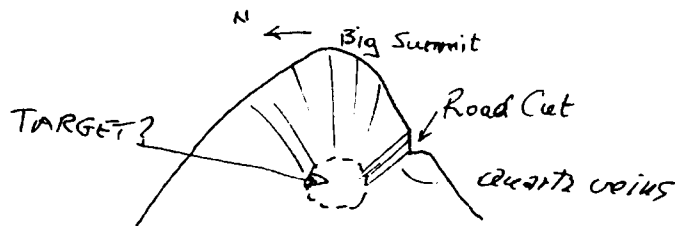
Luca Riccio, Ph.D.

Geological Consultant

- 2 -


1440 Paisley Rd.
North Vancouver, B.C.
V7R 1C3
Phone: (604) 980-7352

- Notes: 1- The boundary between "porphyry" unit and pyroclastic sequence coincides with the eastern boundary of the Au-Ag geochemical anomaly in talus fines.
- 2- Although I did not investigate the quartz-stockwork in detail, it would appear that many of the veinlets are mutually subparallel and dip to the north. Could this imply the following:



- Recommendations: 1- Extend the southern road to the end of the end of the quartz-stockwork zone. Based on the distribution of geochemical values in talus fines an additional 100 m of road building would suffice.
- 2- All outcrops within the geochemical anomaly should be mapped at 1:1000 scale and, if necessary, chip sampled. This should be done in order to prioritize drill targets.

Respectfully Submitted,


Luca Riccio

South Road Samples

N^o

- 35151 5 metre chip - SERICITIZED + ARGILLITIZED QUARTZ-STOCKWORKED (1mm to 2cm VEINS) "PORPHYRY" - TEXTURE MORE OR LESS OBLITERATED - V. FN. PYRITE.
- 35152 5 metre chip - SAME AS 35151.
- 35153 10 metre chip - "PORPHYRY", WITH TEXTURE DESTROYED - QUARTZ STOCKWORK, LOCALLY MAKING UP 20% OF THE ROCK - FN PYRITE.
- 35154 6-7 m chip - QUARTZ-STOCKWORKED PORPHYRY GRADING INTO FELDSPAR PORPHYRY.
- 35155 8 m chip - MAINLY FELDSPAR PORPHYRY; SOME BLuish-GREEN FN GRAINE PYRITIC DYKES - TEXTURE HIGHLY VARIABLE - VERY MINOR QUARTZ VEINING.
- 35156 5 m chip - WHITISH, FN. GRAINED + SILICIFIED "PORPHYRY"; TEXTURE DESTROYED - LIMONITE STAINING AND MINOR PYRITE - LOCALLY 1cm QUARTZ VEINS.
- 35157 10 m chip - HARD, WHITE SILICIFIED "PORPHYRY" - GOOD QUARTZ-STOCKWORK (10%) - PYRITIFEROUS - TEXTURE OBLITERATED.
- 35158 10 m chip - FELDSPAR PORPHYRY WITH LOCAL OBLITERATED TEXTURE WHERE SILICIFIED - POOR TO NON EXISTENT QUARTZ STOCKWORK - SILICIFIED PATCHES ARE PYRITIFEROUS.
- 35159 10 m chip - FELDSPAR PORPHYRY IN FAULT CONTACT WITH PYRITIZED + LIMONITE STAINED MATERIAL -
- 35160 10 m chip - WEAK STOCKWORK FOR 8m PASSING TO WELL PRESERVED FELDSP. PORPHYRY.
- 35161 12 m chip
(DISCONTINUOUS) - BARREN - LOOKING GREY FELDSP. PORPHYRY WITH SOME PYRITIC CLOTS -
- 35162 10 m chip - SILICIFIED ^{WHITE-GREEN} QUARTZ - PORPHYRY - HIGHLY FRACTURED, LIMONITIZED AND PYRITIZED - NO REAL QUARTZ STOCKWORK - MORE PYRITE-FILLED HAIRLINE FRACTURES -

35163. 18 m chip - (DISCONTINUOUS) "Massive" grey FELDSPAR PORPHYRY - LOCALLY PYRITIFEROUS, ESPECIALLY NEAR FRACTURES.
35164. 2 m chip - ACROSS LIMONITIZED BAND IN FELDSPAR PORPHYRY.
35165. 15 m chip - (DISCONTINUOUS) BLOCKY + FRACTURED PYRITIC (2-3%) FELDSPAR PORPHYRY - NO QUARTZ VEINING -
35166. 15 m chip - (DISCONTINUOUS). MASSIVE TO FRACTURED FELDSPAR PORPHYRY - LAST 10 m. CONTAIN ABUNDANT (5%) PYRITE AS CLOTS, DISSEMINATIONS, AND FRACTURE FILLINGS.
35167. 10 m chip - GREY FELDSPAR-PORPHYRITIC ROCK - "CLASTS" WITH PYRITE AND REACTION RIMS - SOME LIMONITE AND MANGANESE STAINING -
35168. 10 m chip - SIMILAR TO PREVIOUS BUT MORE SILICIFIED AND PYRITIZED - CONTAINS HIGHLY FRACTURED PORTION WITH LIMONITE AND MANGANESE STAINING -
35169. 5 m chip. CLOTTY (PYRITIC) ALTERED + MANGANESE STAINED MATERIAL.
35170. 5 m chip WHITE SILICIFIED ZONE WITH QUARTZ-EYES AND BLACK CLOTS IN APHANITIC MATRIX - ALSO LOCALLY VUGGY, LIMONITIC AND PYRITIC. CUT BY "HYDROTHERMAL" BRECCIA-TYPE U.F.N. GRAINED GREY DYRELOTS -
35171. 10 m chip QTZ-EYE SILICIFIED + SERICITIZED ROCK
35172. 10 m chip THIS REPRESENTS THE TRANSITION TO A PROMINENT PYROCLASTIC UNIT. APHANITIC, GREY "RHYOLITIC" TUFF. QUITE SOFT SERICITIZED MATRIX. SURFACES STAINED YELLOWISH, REDDISH, OR LIGHT BROWN
35173. 10 m chip - (DISCONTINUOUS) LAPILLI TUFF TO TUFF BX. LOCALLY DISPLAYS FLOW-BANDING - SOME FRAGMENTS OF FLOW-BANDED RHYOLITE - OTHER HIGHLY KAOLINIZED (PUHICE?)

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

DATE RECEIVED: SEPT 12 1986

DATE REPORT MAILED: *Sept. 13/86*

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: SOILS - BOMESH AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *P3-Rocks* *A. Toy* DEAN TOYE. CERTIFIED B.C. ASSAYER.

DAWSON GEOLOGICAL

FILE # 86-2614

PAGE 1

SAMPLE#	Ag PPM	Au* PPB
RD 0+00	.3	1
RD 0+50	.3	1
RD 1+00	.3	2
RD 1+50	.2	1
RD 2+00	.3	12
RD 2+50	.1	1
RD 3+00	.1	1
RD 3+50	.3	1
RD 4+00	.1	2
RD 4+50	.9	1
RD 5+00	.1	1
RD 5+50	.1	1
RD 6+00	.2	1
RD 6+50	.2	2
RD 7+00	.1	1
RD 7+50	.1	1
RD 8+00	.2	2
RD 8+50	.2	12
RD 9+00	.2	1
RD 9+50	.2	2
RD 10+00	.2	1
RD 10+50	.2	1
RD 11+00	.2	2
RD 11+50	.8	34
RD 12+00	.3	15
RD 12+50	.4	51
RD 13+00	.5	5
RD 13+50	.3	4
RD 14+00	.3	1
RD 14+50	.3	1
RD 15+00	.3	2
RD 15+50	.6	8
RD 16+00	.2	1
RD 16+50	.3	17
RD 17+00	.3	20
RD 17+50	.3	18
RD 18+00	.2	16
STD C/AU-S	7.2	48

SAMPLE#	Ag PPM	Au* PPB
46+55	3.4	12
47+00	2.2	48
47+50	.3	4
48+00	.9	20
48+50	.7	6
49+00	1.0	22
49+50	5.5	52
50+00	1.9	32
50+50	5.3	61
51+00	2.6	54
51+50	2.4	132
52+00	3.1	41
52+50	3.0	55
53+00	2.5	30
53+50	5.3	104
54+00	7.7	760
54+50	.4	74
55+00	6.8	560
55+50	1.2	62
STD C/AU-S	7.1	50

DAWSON GEOLOGICAL FILE # 86-2614

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au11
	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	I	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	I	I	PPH	PPH	I	PPH	I	PPH	I	I	I	PPH	PPB
35151 <i>Rock</i>	4	266	32	255	.6	6	3	637	1.24	10	5	ND	2	17	2	5	3	21	.58	.049	10	3	.54	33	.01	6	.95	.06	.11	1	44
35152	8	280	31	96	.2	4	3	984	1.13	3	5	ND	2	14	1	8	2	15	.70	.048	8	3	.39	37	.01	5	.67	.05	.07	1	33
35153	25	194	35	119	.4	3	5	373	1.73	7	5	ND	3	15	1	6	2	11	.16	.031	11	3	.23	43	.01	4	.67	.05	.12	1	15
35154	9	378	40	124	.3	2	6	346	.97	9	5	ND	3	10	1	8	2	7	.17	.025	13	3	.17	32	.01	3	.47	.04	.08	1	24
35155	23	147	12	45	.1	5	8	201	2.62	6	5	ND	2	16	1	2	2	33	.20	.045	7	7	.59	25	.02	4	1.04	.07	.08	1	24
35156	20	64	9	13	.1	4	2	52	2.01	4	5	ND	2	27	1	5	2	20	.05	.030	11	15	.16	51	.01	5	.49	.06	.10	1	47
35157	6	163	24	73	.3	11	8	517	1.84	11	5	ND	2	14	1	4	2	21	.01	.039	12	12	.47	19	.01	5	.81	.05	.08	1	29
35158	41	249	12	78	.3	23	15	464	2.74	6	5	ND	2	16	1	2	2	32	.17	.041	10	25	.62	31	.02	4	1.09	.07	.15	1	80
35159	15	184	12	124	.3	4	8	310	2.90	20	5	ND	2	33	1	4	2	31	.21	.041	7	7	.52	32	.04	5	1.17	.05	.14	1	41
35160	20	153	23	532	.4	5	6	724	3.79	107	5	ND	2	20	2	25	2	24	.14	.043	11	4	.37	43	.01	8	1.15	.05	.13	1	39
35161	7	83	6	120	.3	5	6	230	2.45	5	5	ND	2	16	1	3	2	49	.20	.049	4	6	.78	96	.12	3	1.30	.07	.35	1	19
35162	36	180	10	27	.1	2	3	81	2.01	4	5	ND	1	4	1	2	2	8	.01	.013	5	3	.12	22	.02	4	.47	.04	.08	1	33
35163	17	121	22	454	.4	5	7	450	3.13	4	5	ND	2	19	2	3	2	35	.37	.050	9	5	.78	39	.04	6	1.22	.07	.20	1	17
35164	12	50	7	150	.1	2	2	150	2.61	6	5	ND	2	11	1	5	3	27	.05	.041	7	4	.61	38	.02	5	1.15	.06	.16	1	12
35165	6	37	16	212	.1	4	5	232	3.45	3	5	ND	1	10	1	2	2	35	.14	.044	2	6	.65	37	.03	5	1.11	.06	.18	1	22
35166	3	36	845	438	1.4	4	5	542	3.10	104	5	ND	2	30	2	24	2	18	.43	.055	12	3	.52	55	.01	6	.96	.05	.12	1	70
35167	1	35	16	486	.1	6	11	1493	3.26	4	5	ND	1	34	2	2	2	29	.92	.053	10	4	.65	54	.01	4	1.20	.06	.10	1	23
35168	2	23	37	975	.6	4	7	1819	2.72	22	5	ND	2	18	4	9	2	13	.30	.046	8	1	.27	57	.01	8	.82	.03	.16	1	25
35169	1	14	41	589	.3	4	6	1211	3.65	17	5	ND	2	25	3	7	2	19	.62	.054	12	4	.50	40	.01	5	1.23	.05	.11	1	7
35170	3	12	56	263	2.0	2	2	909	1.65	68	5	ND	1	13	4	16	3	1	.11	.036	9	1	.01	46	.01	10	.20	.02	.18	1	16
35171	2	9	67	273	1.6	1	1	297	1.27	135	5	ND	2	12	2	21	2	1	.03	.024	9	1	.01	44	.01	7	.21	.01	.18	1	33
35172	2	10	46	641	.8	4	2	995	1.41	55	5	ND	2	10	4	8	2	5	.07	.028	8	3	.09	38	.01	5	.38	.02	.13	1	10
35173	2	6	24	151	.8	1	1	127	1.22	3	5	ND	2	10	1	5	2	1	.01	.024	10	1	.01	34	.01	3	.27	.02	.12	1	9
35174	8	39	9	67	.5	3	3	562	1.28	4	5	ND	1	14	1	2	2	10	.63	.040	6	3	.36	27	.01	5	.67	.04	.10	1	41
STD C/AU-R	21	57	40	135	7.0	70	28	1093	3.99	40	18	7	35	48	17	15	21	68	.48	.102	39	55	.88	180	.08	35	1.73	.09	.13	12	500

LEGEND TO ACCOMPANY MAP



FELDSPAR PORPHYRY MASSIVE, BRACKY, VARIABLY FRACTURED AND SILICIFIED



FELDSPAR PORPHYRY? TEXTURE OBLITERATED, GENERALLY HIGHLY SILICIFIED ± QUARTZ STOCKWORKED



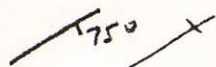
QUARTZ-EYE "PORPHYRY"? -



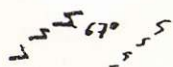
TRANSITION TO NON SILICIFIED PYROCLASTIC SEQUENCE



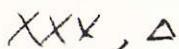
PYROCLASTIC SEQUENCE. TUFF TO TUFF BRECCIA.



PROMINENT FRACTURE; INCLINED, VERTICAL



FAULT-SHEAR; INCLINED, VERTICAL



QUARTZ-STOCKWORK, HYDROTHERMAL BRECCIA



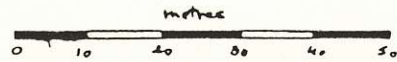
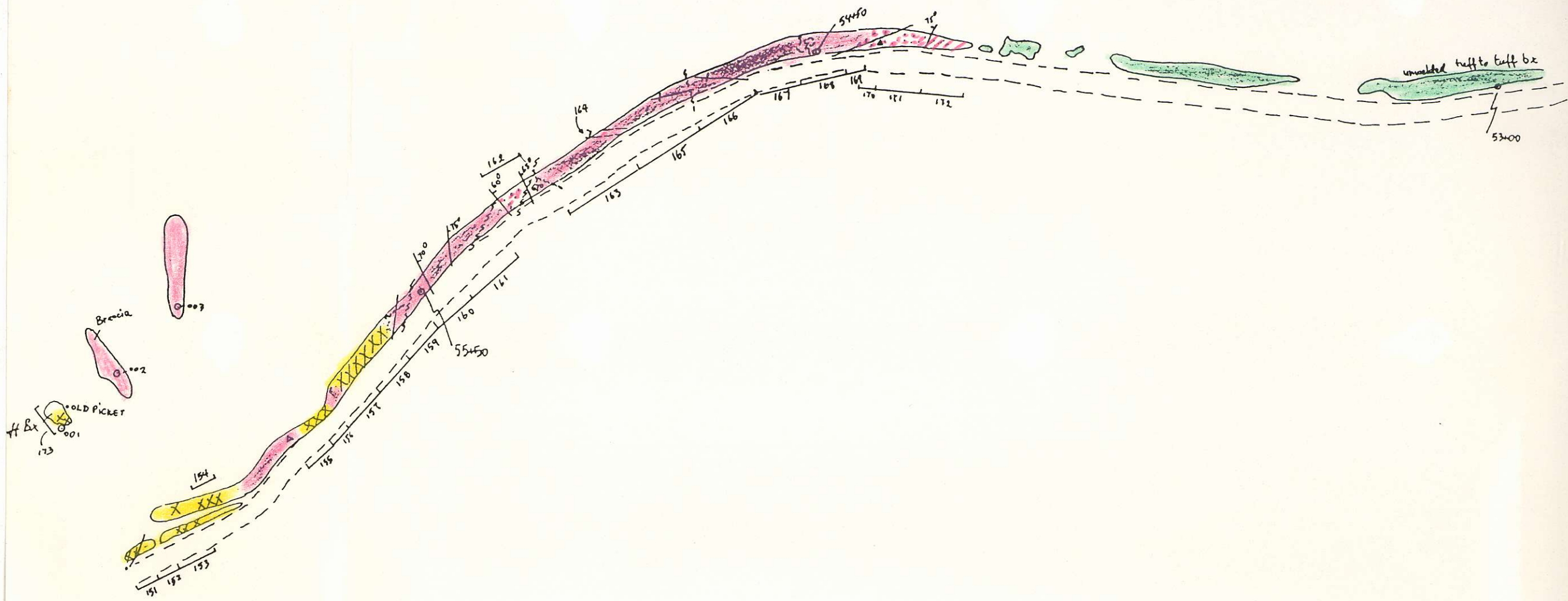
CHIP SAMPLE (ALL PREFIXED BY 35-)



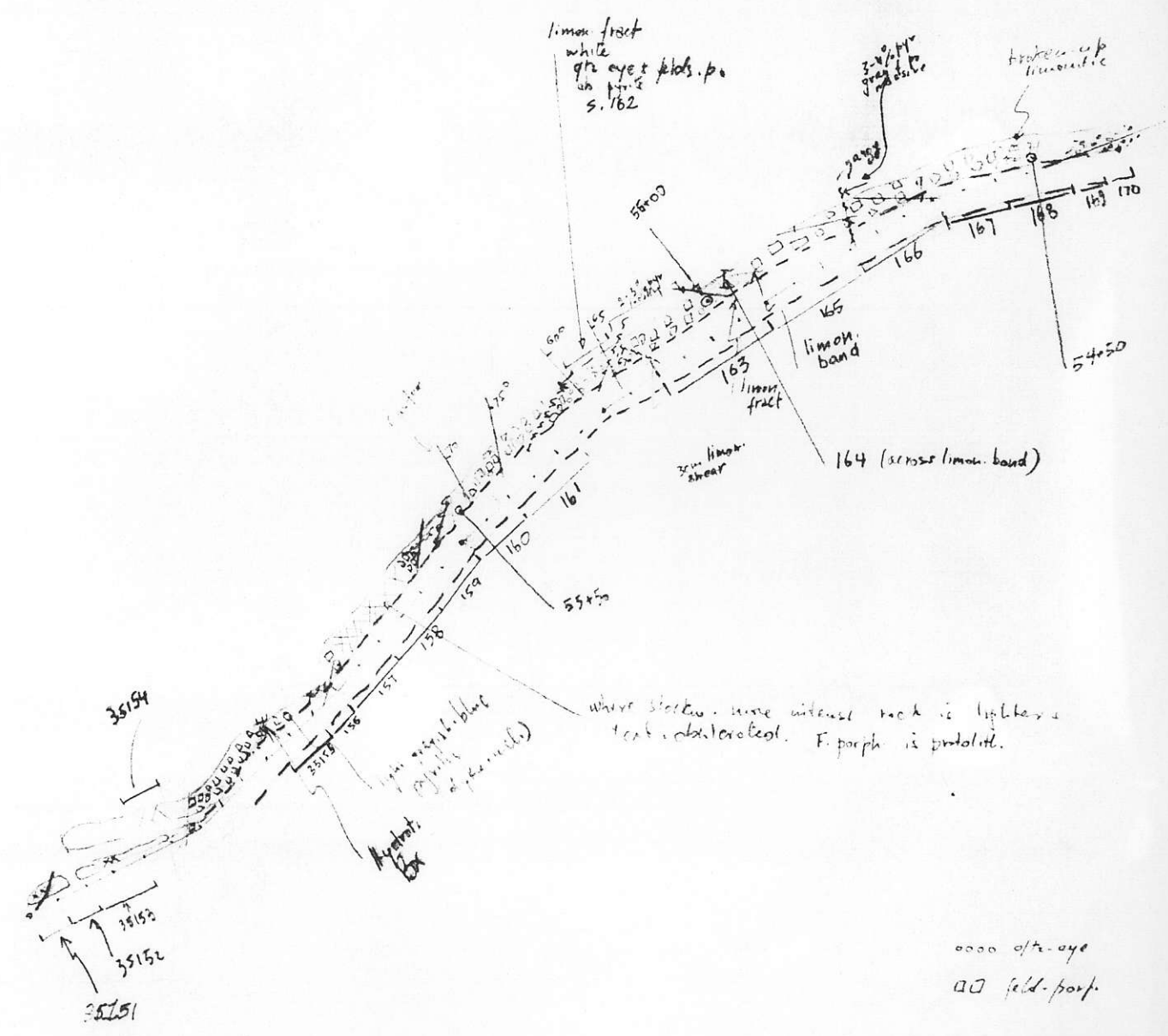
PREVIOUS STATION.



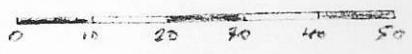
L. Riccio STATION ON THE HILL



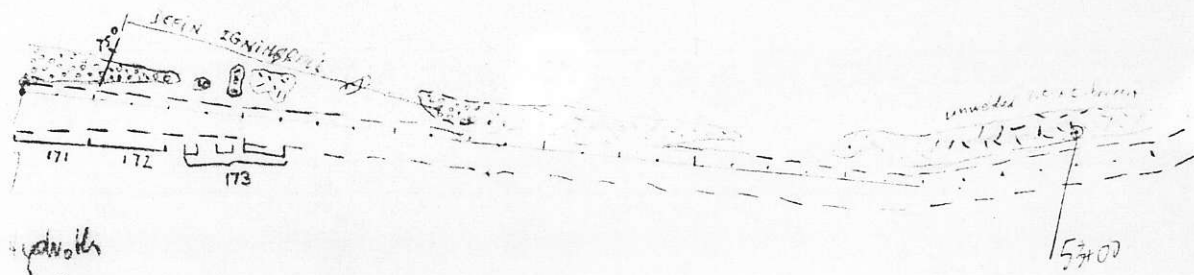
Note: ex. hydroth ex.
 possible E-W bands of alteration, dipping to the N



are mainly flat-lying
 + parallel to slope



35154.



Hydrolysis
DX