TECK EXPLORATIONS LIMITED REPORT ON THE GEOLOGY AND GEOCHEMISTRY OF THE BEE JAY GROUP OF CLAIMS

CONSISTING OF 3.J., BEE, JAY, WINDY, GREY, RAINY, DAY, VALLEY, WISH CLAIMS
LIARD MINING DIVISION
104 G/2 W 57 88 K, 130 88 4 /0.5′ 566′

OWNED BY TECK CORPORATION

FILMED

OPERATED BY TECK EXPLORATIONS LIMITED

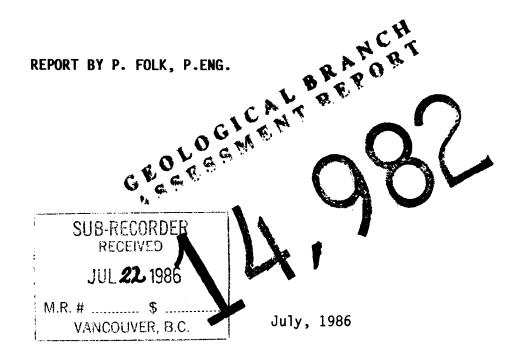


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INTRODUCTION

Location and Access

The BEE JAY group of claims is located at the headwaters of Mess Creek, $57^{\circ}08'N$, $130^{\circ}50W$ about 26 km south-southwest of the Schaft Creek airstrip. Map sheet 104 G/2 W covers the area which is in the Liard Mining Division. Present access is by helicopter from Bob Quinn Lake on the Stewart-Cassiar Highway about 50 km east.

History

The initial claims were staked in July, 1980 as the follow-up to a regional stream geochemical survey. Although indications of earlier prospecting have been found there is no record of any previous claims having been staked in the area. Work in 1980, 1981 and 1982 by Teck Explorations consisted of various geochemical surveys, trenching and geological mapping.

<u>Claims</u>

97 units in 9 continguous claims are presently held and have been grouped in the "BEE JAY" group. A claim map is shown on Figure 2.

Name	<u>Units</u>	Recorded	Record No.
B.J.	20	29 JUL/80	1480 (7)
BEE	4	29 JUL/80	1478 (7)
JAY	15	29 JUL/80	1479 (7)
WINDY	18	29 AUG/80	1556 (8)
GREY	12	29 AUG/80	1557 (8)
RAINY	12	29 AUG/80	1558 (8)
DAY	8	29 AUG/80	1559 (8)
VALLEY	6	22 SEPT/80	1626 (9)
WISH	2	1 SEPT/81	2065 (9)

Climate and Physiography

Located on the eastern flank of the Coast Mountains, the area is rugged with elevations from 1,000 to 2,000 m. The property is bounded to the west by ice fields, to the south by a large glacio-fluvial valley and to the east by the Mess Creek Valley. Numerous alpine glaciers transect the property which is snow covered for about nine months of the year.

TO EAST SEE MAP 104G/3E

Work Done

A flag and picket grid was established on the central portion of the WINDY Claim, as shown on Figure 3, in an area where reconnaissance soil sampling in 1981 and 1982 had indicated the presence of gold in the soil. 123 soil samples were taken at 25-metre intervals along the grid and rock chip samples were cut across veins and vein zones. Geological mapping was done along the grid lines. The camp was then moved to the north-central portion of the B.J. Claim where more rock sampling was done on the pyritic portions of an extensive iron carbonate breccia zone.

Regional Geology

Permian and older metamorphosed volcanics, volcaniclastics and sediments are unconformably overlain to the northwest by Upper Triassic sediments and volcanics which have been intruded by the Coast Range plutons. The Paleozoic rocks have suffered a high degree of metamorphism and four phases of folding which have transformed the original material into a variety of schists and phyllites.

GEOLOGY OF THE WINDY CLAIM GRID AREA

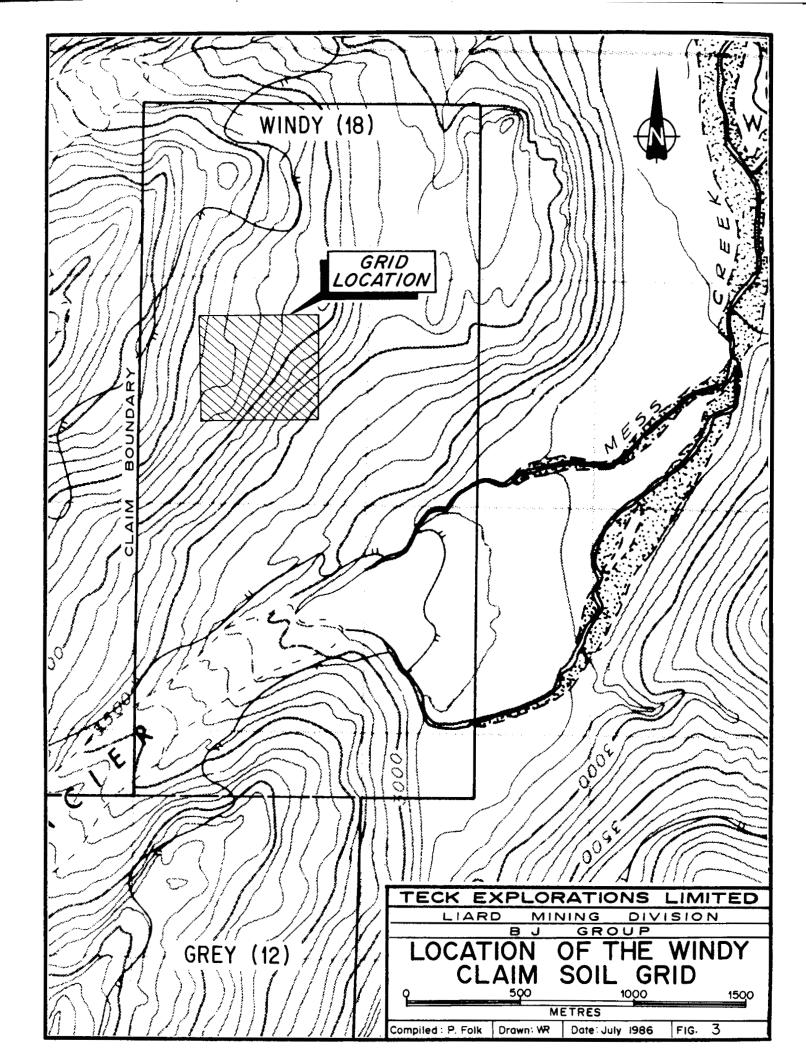
Detailed geological mapping at a scale of 1:1000 was undertaken over the grid to determine the gold source of anomalous soil samples taken in 1981 and 1982. The location of the grid area in relation to the WINDY Claim is shown on Figure 3. The actual geological map, Figure 4, is enclosed.

Lithology

Using the terminology developed by P. Holbeck in 1982 the rock types encountered were divided into:

- Unit 6 greenstone and foliated greenstone
- Unit 6A a dioritic phase of the above with gradational contacts
- Unit 4 interbedded/folded purple and green schists, argillaceous tuffs and pyroclastics

The gradational contacts between the dioritic phase of the greenstone and the foliated types and slightly cross-cutting relationships with Unit 4 rocks suggest that Unit 6 rocks were intruded as a sill into the Unit 4 rocks. The "sill" is resistant to erosion and now forms the tops of knobs, ridges and cliffs.



Structure

Although the area has undergone four phases of folding on the Windy Claim grid the contact between the greenstone unit and the schists is a gently north-dipping undulating surface. The actual contact zone which contains abundant semi-concordant mineralized quartz veins is rarely exposed except in creeks and cliff faces. Northeasterly-striking block faulting has disrupted the otherwise orderly pattern of the contact zone. A brown, limonitic iron carbonate alteration is found in close proximity to the faults.

A cross-cutting and east-west striking quartz vein cuts the strata and foliation near line 600 south. The steeply north-dipping vein is contained within an envelope of limonite and brown iron carbonate alteration and does not appear to have displaced the strata to any great degree.

Alteration and Mineralization

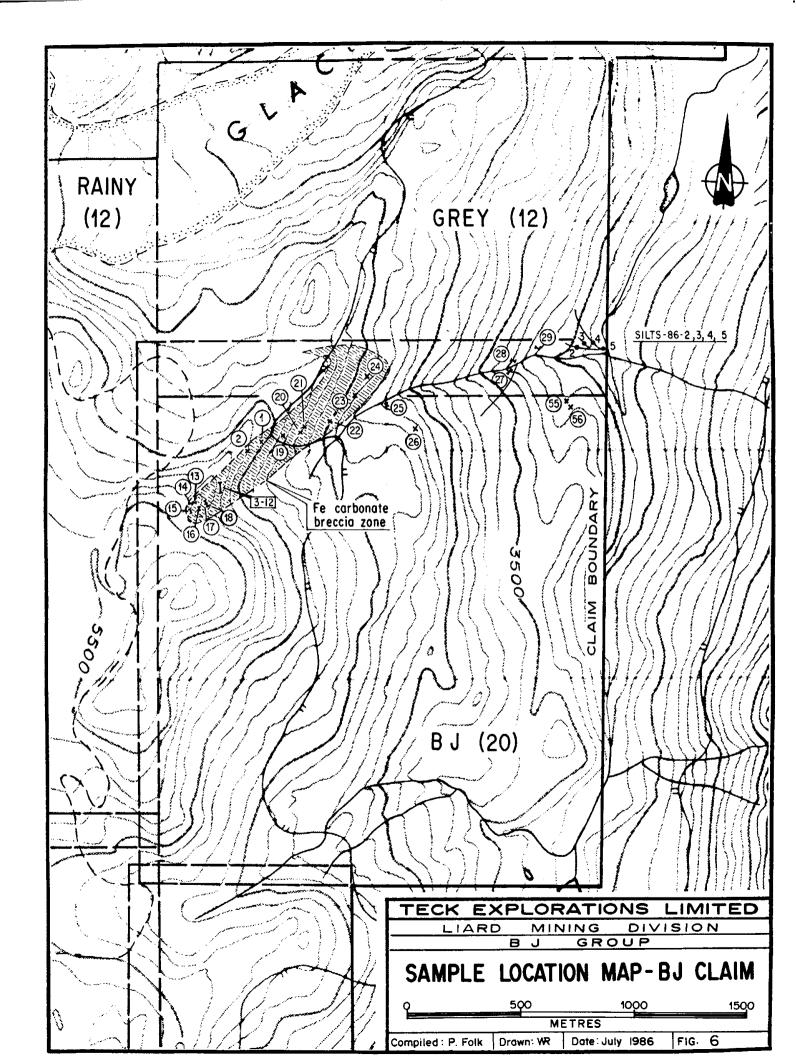
Upper greenschist to lower amphiboite grade metamorphism has produced metamorphogenic quartz veining and an assemblage of muscovite, chlorite, talc, tremolite and secondary biotite. Most of the metamorphogenic quartz veins even though weakly pyritized are usually barren of gold mineralization. A later event of hydrothermal alteration has produced cross-cutting quartz veins and Fe carbonate breccia zones in structural traps. Pyrite is the most abundant sulfide with lesser arsenopyrite and trace amounts of tetrahedrite, chalcopyite, sphalerite and galena. Colors of gold can be found in some of the streams draining the claim group and have been found in the soil below a vein at about 600 S, 450 E on the grid. Distinctive brown, limonitic iron carbonate alteration envelopes are associated with fault controlled veining and carbonate breccia zones. Up to 20% epidote with minor disseminated pyrite was found solely within Unit 6A. Semi-conformable quartz veining is well developed at the Greenstone-Schist contact on the WINDY and BJ claims but gold values are rare.

SOIL GEOCHEMISTRY

118 soil samples were taken on the grid and 5 silt samples were taken from creeks not previously sampled. All soil samples were collected from the B horizon at depths of about 20-30 cm. where possible. Snow conditions precluded the sampling of some areas and necessitated taking some samples at a distance from the grid pickets. Actual sample locations are plotted on Figure 5. Samples were analyzed for Au by atomic absorption at Acme Analytical Labs in Vancouver. A brief description of the analytical methods is in the appendix.

RESULTS

- 1. Chip sample results from the WINDY Claim are plotted on Figure 4. All gold values from the quartz-rich contact zone are .001 oz/t Au except for one sample at .004 oz/t Au.
- Soil sample results from the same area contain several very high values up to 6100 ppb Au.
- 3. The quartz vein near line 6+00 S is expressed in the soil sample results as an anomaly. Chip sample reuslts as high as 0.710 oz/t Au over a 0.4 metre width were returned from a smaller, parallel vein structure. The main vein contains some gold values in the 0.1 to 0.3 oz/t range.
- 4. On the BJ Claim an extensive Fe carbonate breccia zone contains gold values in the 0.01 to 0.05 oz/t Au range within its pyritic sections. Actual values are tabulated below with the sample locations plotted on Figure 6. Sample 55 assaying 0.053 oz/t Au is a separate, poorly exposed, quartz-pyritic rich vein or zone in a small creek bank. The extent or significance of this occurrence is unknown.



ROCK CHIP AND SILT SAMPLE RESULTS B.J. CLAIM

SAMPLE #	Ag oz/t	Au oz/t	Length (m)	Notes
BJ 1	.01	.001	2.0	
BJ 2	.02	.001	2.0	
BJ 3	.01	.019	2.0	•
BJ 4	.05	.015	2.0	
BJ 5	.01	.014	2.0	
BJ 6	.01	.024	2.0	
BJ 7	.07	.015	2.0	
BJ 8	.02	.001	2.0	
BJ 9	.02	.001	2.0	
BJ 10	.01	.003	2.0	
BJ 11	.04	.052	2.0	
BJ 12	.03	.007	2.0	
BJ 13	.01	.009	2.0	Contact zone
BJ 14	.01	.008	2.0	Contact zone
BJ 15	.05	.033	2.0	
BJ 16	.03	.011	2.0	
BJ 17	.03	.008	2.0	
BJ 18	.04	.010	2.0	
BJ 19	.03	.001	2.0	
BJ 20	.01	.001	2.0	
BJ 21	.01	.001	2.0	
BJ 22	.01	.002	2.0	
BJ 23	.01	.005	Float	
BJ 24	.02	.023	2.0	
BJ 25	.02	.001	2.0	Quartz veins in schist
BJ 26	.01	.001	2.0	Quartz veins in schist
BJ 27	.02	.001	2.0	Rusty bluff
BJ 28	.01	.001	2.0	Sulphides at creek
BJ 29	.05	.033	Float	Carbonate alteration
BJ 55	.27	.053	Grab	
BJ 56	.15	.003	Grab	Same location as 55 but no quartz
		Au PPB		
Silt BJ 86		30		
Silt BJ 86		34		
Silt BJ 86		10		
Silt BJ 86		16		
Silt BJ 86	-5	355		

CONCLUSIONS

- The quartz-rich contact zone on the WINDY Claim does not contain sufficient gold to explain the gold-in-soil results. The source of this gold is unknown but could be a hidden vein or veins.
- 2. The newly discovered quartz vein near line 6+00 South on the grid contains some potentially economic values and is of sufficient length and width to be of further interest.
- 3. The carbonate breccia zone on the BJ Claim contains substantial amounts of low grade gold in structurally controlled pyritic sections within the zone. This low grade gold could explain the colors of placer gold at the bottom of the creek draining the zone.

RECOMMENDATIONS

Further prospecting and hand trenching is warranted in the area of unexplained soil anomalies and on the quartz vein near line 6+00 South on the WINDY Claim. Similar work is recommended in the vicinity of samples #56, 29 and 24 on the BJ Claim. In general the entire property requires further prospecting and sampling by an experienced gold prospector at a time of year when snow does not hinder his activities. Further sampling of the carbonate breccia zone on the BJ Claim should take place when snow conditions permit.

Respectfully submitted,

12/

P. Folk, P.Eng.

ITEMIZED COST STATEMENT

P. Folk, P.Eng Geology, supervision June 25 - July 8, 14 days @ \$180/day	\$2,520
June 25 - July 6, 14 days & \$100/day	
G. May - Geochemical survey June 25 - July 8, 14 days @ \$85/day	1,190
K. Lehmann - Geochemical survey June 25 - July 9, 14 days @ \$95/day	1,330
Helicopter, Okanagan Helicopters - Hughes 500-D, Bob Quinn Lake:	
27 June 1.5 hours 3 July 0.8 hours 4 July 1.0 hours 7 July 1.9 hours	
5.2 hours @ \$600/hr. including fuel	3,120
Expediting services, Joyce Warren, Smithers Food and fuel, 42 man-days @ \$30/day Hardware, camp costs, mobilization, demobilization Truck rental 15 days @ \$75/day Radio rental, telephone calls Drafting and report preparation Assays: 123 soil samples @ \$4.75 85 rock samples @ \$14.25 Freight	250 1,260 1,300 1,125 200 750 584 1,212 164
	\$15,005

CERTIFICATE OF QUALIFICATIONS

Peter G. Folk, P.Eng.

I hereby certify that:

- 1. I graduated from the University of British Columbia in 1971 with a B.A.S.C. degree in geological engineering.
- 2. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
- 3. I have worked since graduation as an exploration geologist and mine geologist in Canada and the United States.
- 4. The work described herein was done under my direct supervision.

P. G. Folk, P.Eng.

APPENDIX

ASSAY TECHNIQUES AND RESULTS



ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

Telephone: 253 - 3158

GEOCHEMICAL LABORATORY METHODOLOGY - 1985

Sample Preparation

- 1. Soil samples are dried at 60° C and sieved to -80 mesh.
- 2. Rock samples are pulverized to -100 mesh.

Geochemical Analysis (AA and ICP)

- 0.5 gram samples are digested in hot dilute aqua regia in a boiling water bath and diluted to 10 ml with demineralized water. Extracted metals are determined by :
- A. Atomic Absorption (AA)

Ag*, Bi*, Cd*, Co, Cu, Fe, Ga, In, Mn, Mo, Ni, Pb, Sb*, Tl, V, Zn (* denotes with background correction.)

B. Inductively Coupled Argon Plasma (ICP)

Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cu, Cr, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, Ti, U, V, W, Zn.

Geochemical Analysis for Au*

10.0 gram samples that have been ignited overnite at 600° C are digested with 30 mls hot dilute aqua regia, and 75 mls of clear solution obtained is extracted with 5 mls Methyl Isobutyl Ketone.

Au is determined in the MIBK extract by Atomic Absorption using background correction (Detection Limit = 1 ppb).

Geochemical Analysis for Au**, Pd, Pt, Rh

10.0 - 30.0 gram samples are subjected to Fire Assay preconcentration techniques to produce silver beads.

The silver beads are dissolved and Au, Pd, Pt, and Rh are determined in the solution by graphite furnace Atomic Absorption. Detections - Au=1 ppb; Pd, Pt, Rh=5 ppb

Geochemical Analysis for As

0.5 gram samples are digested with hot dilute aqua regia and diluted to 10 ml. As is determined in the solution by Graphite Furnace Atomic Absorption (AA) or by Inductively Coupled Argon Plasma (ICP).

Geochemical Analysis for Barium

0.25 gram samples are digested with hot NaOH and EDTA solution, and diluted to 20 ml.

Ba is determined in the solution by ICP.

Geochemical Analysis for Tungsten

0.25 gram samples are digested with hot NaOH and EDTA solution, and diluted to 20 ml. W in the solution determined by ICP with a detection of 1 ppm.

Geochemical Analysis for Selenium

0.5 gram samples are digested with hot dilute aqua regia and dilute to 10 ml with H_20 . Se is determined with NaBH3 with Flameless AA. Detection 0.1 ppm.

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE 253-3158 TELEX 04-53124

DATE RECEIVED: JULY 9 1986

DATE REPORT MAILED:

July 15/8/2.

ASSAY CERTIFICATE

SAMPLE TYPE: ROCK CHIPS AUX AND AGX BY FIRE ASSAY

ASSAYER:

BJ 13

BJ 14

BJ 15

BJ 16

BJ 17

BJ 18

BJ 19

BJ 20

BJ 21

BJ 22

BJ 23

BJ 24

BJ 25

BJ 26

BJ 27

BJ 28

BJ 29

ER:	N. Degg	DEAN T	OYE. CERTIF	TED I	B.C. <i>(</i>	22 6	SAYER.		
TE	CK EXPLORAT	ION	PROJECT -	BJ	FILE	#	86-1380A	PAGE	1
	SAI	MPLE#	Ag**	Au**					
			OZ/T	OZ/T					
	ВЈ	1	.01	.001					
	BJ	2	.02						
	BJ	3	.01						
	BJ	4		.015					
	BJ	5		.014					
	BJ	4	.01	.024					
	BJ		.07	.015					
	EJ		.02						
	BJ		.02						
	BJ	10	.01	.003					
	ВЈ	11	.04	.052					
		12	.03	.007					
		-	-						

.01 .009

.01 .008

.05 .033

.03 .011

.03 .008

.04 .010

.03 .001

.01 .001

.01 .001

.01 .002

.01 .005

.02 .023

.02 .001

.01 .001

.02 .001

.01 .001

.05 .033

TECK EXPLORATION	PROJECT - BJ	FILE #	86-1380A	PAGE 2
SAMF'LE#	Ag** Au OZ/T OZ			
24801 24802 24803 24804 24805		30	•	
24806 24807 24808 24809 24810	.06 .0 .12 .0 .18 .1	08 13 32 04 89		
24811 24812 24813 24814 24815		19	•	
24816 24817 24818 24819 24820	.12 .0 .09 .0 .08 .0 .04 .0	14 14		
24821 24822 24823 24824 24825	.02 .0	01		
24826 24827 24828 24829 24830	.02 .0 .03 .0 .02 .0	01 01 04 01		
24831 24832 24833 24834 24835	0. E0. 0. E0. 0. E0.	01 01 01 01 01		
24836	.02 .0	01		

TECK EXPLORATION	PROJECT -	BJ FILE # 86-1380A	FAGE 3
SAMPLE#	Ag**	Au**	
	OZ/T	OZ/T	
24837	.01	.001	
24838	.01	.001	
24839	.01	.001	
24840	.01	.001	
24841	.01	.001	
24842	.01	.001	
24843	.01	.001	
24844	.01	.001	
24845	.02	.001	
24846	.01	.001	
24847	.01	.001	
24848	.01	.001	
24849	.01	.001	
24850	.01	.001	
24851	.01	.001	
24852	.08	.003	
24853	.37	.710	
24854	.12	.009	
24855	. 27	.053	
24856	.15	.003	

ACME ANALYTICAL LABORATORIES LTD. 352 E. HASTINGS, VANCOUVER B.C. PH: (604)253-315B COMPUTER LINE:251-1011

DATE RECEIVED JUL 9 1986

FAGE# 1

DATE REPORTS MAILED Yulu

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : SOIL - DRIED AT 60 DEG C. . -80 MESH.

SAMPLE

Aut - 10 SM. IGNITED. HOT AGUA REGIA LEACHED. MIBK EXTRACTION. AA ANALYSIS.

ASSAYER DELL

SOLLY DEAN TOYE . CERTIFIED B.C. ASSAYER

Au*

TECK EXPLORATION PROJECT BJ FILE# 86-1380

ppb L6+00S 1+00E 75 L6+00S 1+50E 450 L6+00S 1+75E 43.5 L6+00S 2+00E 15 L6+00S 2+25E 75 L6+00S 2+50E 11 L6+00S 2+75E 12 L6+00S 3+00E 295 L6+00S 3+25E 395 L6+00S 3+50E 2150 L6+00S 3+75E 435 L6+00S 4+00E 510 L6+00S 4+25E 1690 L6+00S 4+50E 300 L6+00S 4+75E 410 L6+00S 5+00E 90 L6+00S 5+25E 110 L6+00S 5+50E 225 L6+50S 1+00E 14 L6+50S 1+25E 17 L6+50S 1+50E 32 L6+50S 1+75E 17 L6+50S 2+00E 12 L6+50S 2+25E 6 L6+50S 2+50E 12 L6+50S 2+75E 110 L6+50S 3+00E Ö L6+50S 3+25E 23 L6+50S 3+50E 105 L7+00S 1+00E 42 L7+00S 1+25E :15 L7+00S 1+50E 1890 L7+00S 1+75E 210 L7+00S 2+00E 20 L7+00S 2+25E 13 L7+00S 2+50E 18

SAMPLE		Aux dqq
L7+00S	2+75E	460
L7+00S		55
L.7+50S		1.450
L7+50S		3300 3300
L7+50S		160
/ \- \-/\d	1.000	1000
L7+50S	1+75E	48
L7+50S	2+00E	75
L7+50S	2+25E	110
L7+508	2+50E	60
L7+50S		38
L7+50S		115
L8+00S		85
L8+00S		1200
L8+00S		160
L8+00S	1+75E	4000
10.000	0.00	
L8+00S		715
L8+00S		70
LB+00S		265
L8+00S		100
L8+25S	0+25E	355
L8+25S	0+50E	32
L8+25S	0+75E	75
L8+25S	1+00E	525
L8+25S		
L8+25S	1+50E	19
L0~2J3	エエコの部	330
L8+25S	1+75E	30
L8+25S	2+00E	6
L8+25S	2+25E	47
L8+25S	2+50E	61.00
L8+25S	2+75E	80
LOVESS	/"\	سد معهور
L8+50S		180
L8+50S		38
L8+50S		43
L8+50S		145
L8+50S	1+25E	80
L8+50S	1+50E	45

SAMPLE	Au* ppb
L8+50S 1+75E	17
L8+50S 2+00E	42
L8+75S 0+00E	33
L8+75S 0+25E	50
L8+75S 0+50E	30
L8+75S 0+75E	29
L8+75S 1+00E	33
L8+75S 1+25E	95
L8+75S 1+50E	130
L8+75S 1+75E	21
L8+758 2+00E	14
L9+008 0+00E	140
L9+008 0+25E	17
L9+008 0+50E	235
L9+008 0+75E	65
L9+00S 1+00E	22
L9+00S 1+25E	165
L9+00S 1+50E	12
L9+25S 0+00E	150
L9+25S 0+25E	210
L9+25S 0+50E	32
L9+25S 0+75E	50
L9+25S 1+00E	23
L9+25S 1+25E	11
L9+25S 1+50E	10
L9+50S 0+00E	80
L9+50S 0+25E	325
L9+50S 0+50E	23
L9+50S 0+75E	65
L9+50S 1+00E	17
L9+50S 1+25E	27
L9+50S 1+50E	16
L9+75S 0+00E	155
L9+75S 0+25E	17
L9+75S 0+50E	535
L9+75S 0+75E	17

TECK EXPLORATION F	ROJECT BJ	FILE#	86-1380
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SAMPLE	Au* ppb
L9+75S 1+00E	44
L9+75S 1+25E	95
L9+75S 1+50E	6
L10+00S 0+00E	39
L10+00S 0+25E	44
L10+00S 0+50E	75
L10+00S 0+75E	80
L10+00S 1+00E	4
L10+00S 1+25E	27
L10+00S 1+50E	55
SILT BJ 86-1	30
SILT BJ 86-2	34
SILT BJ 86-3	10
SILT BJ 86-4	16
SILT BJ 86-5	355

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