

TECHNICAL REPORT

On work performed by

GORDON G RICHARDS

As partial fulfillment of his
1999 GRASSROOTS PROSPECTING PROGRAM
under the
YUKON MINING INCENTIVES PROGRAM

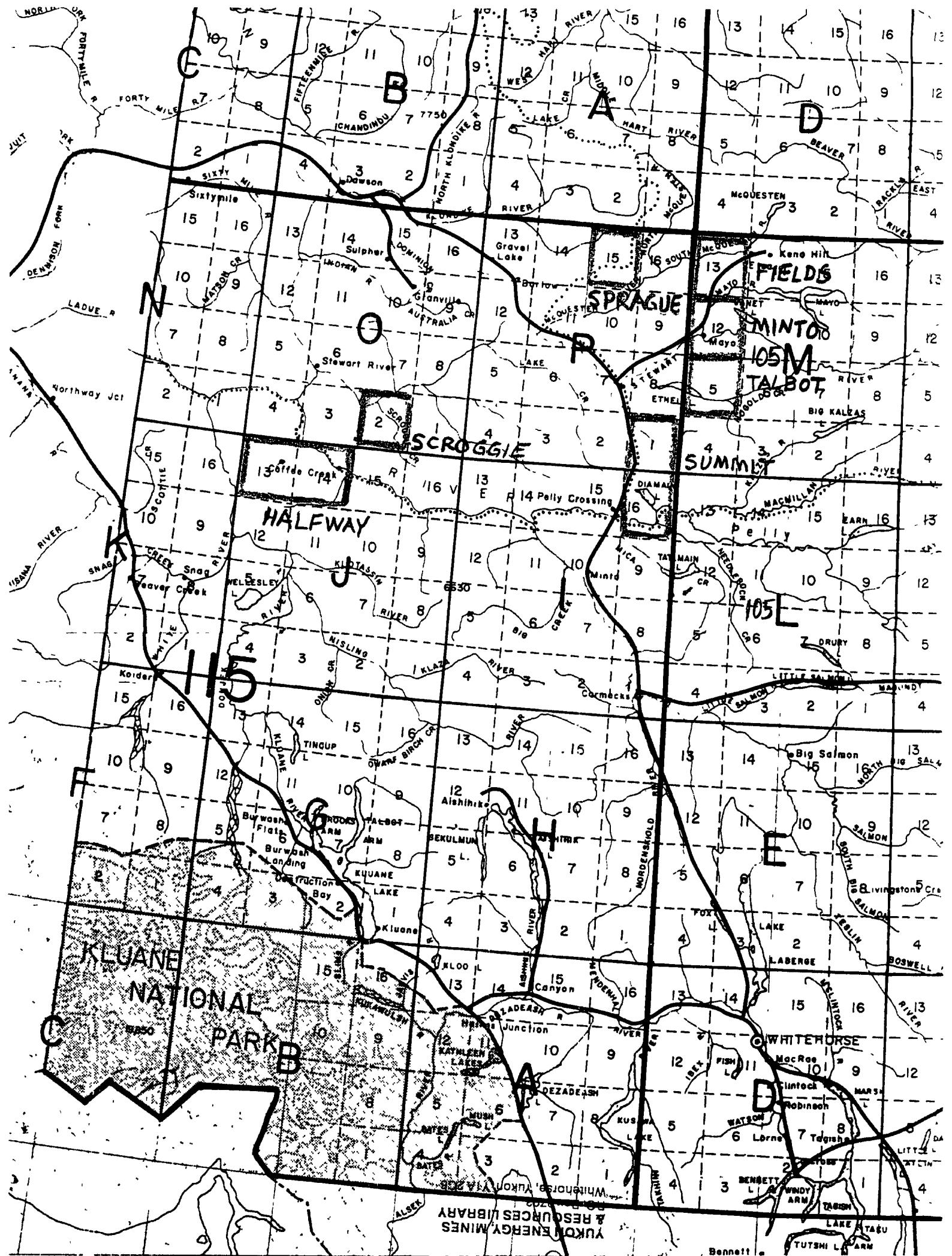
In AREAS

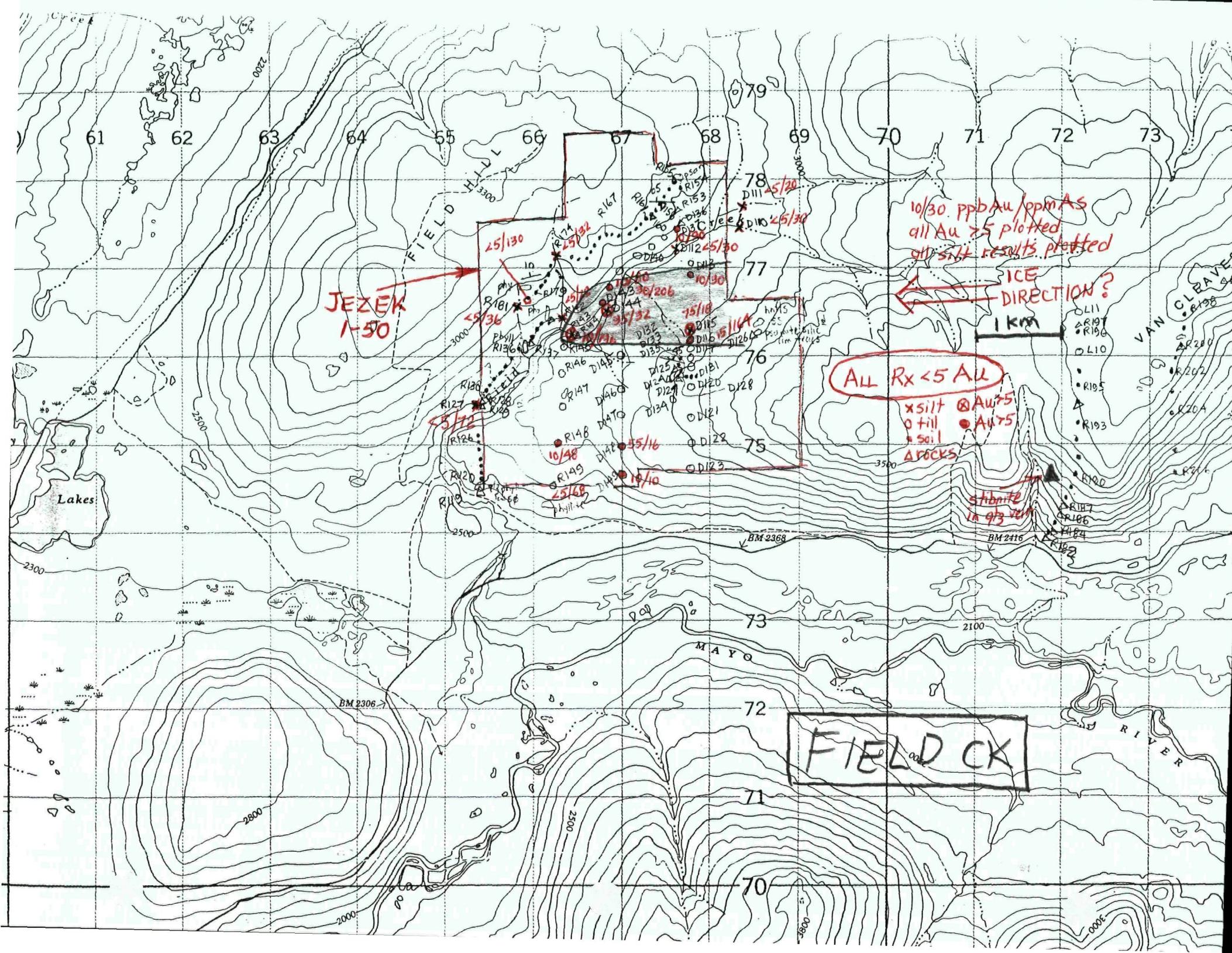
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Minto Ck 105M/12W
Talbot Lake 105M/5
Summit Lake 115P/1
Scroggie Ck 115O/2

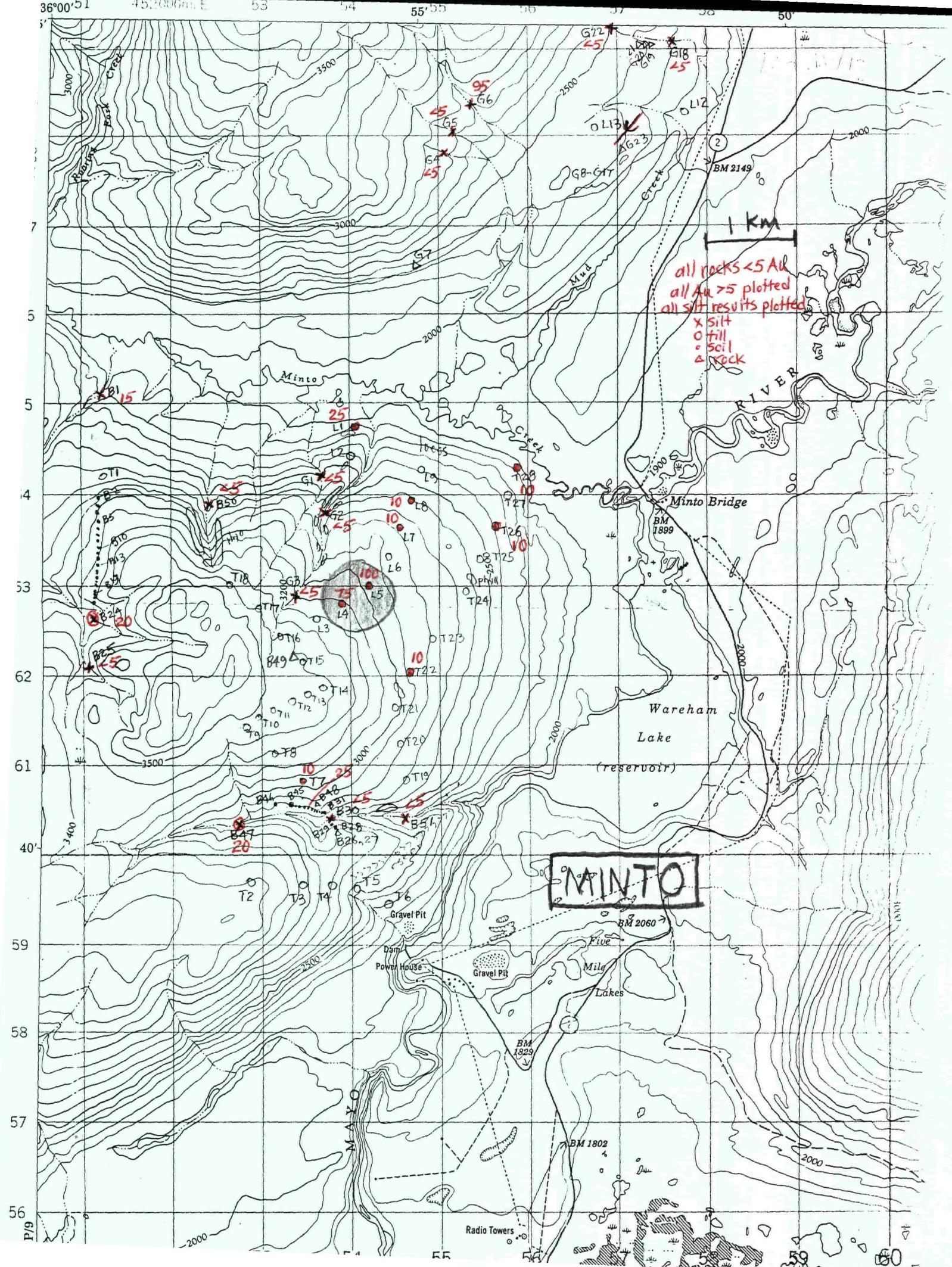
Dated
January 10, 2000

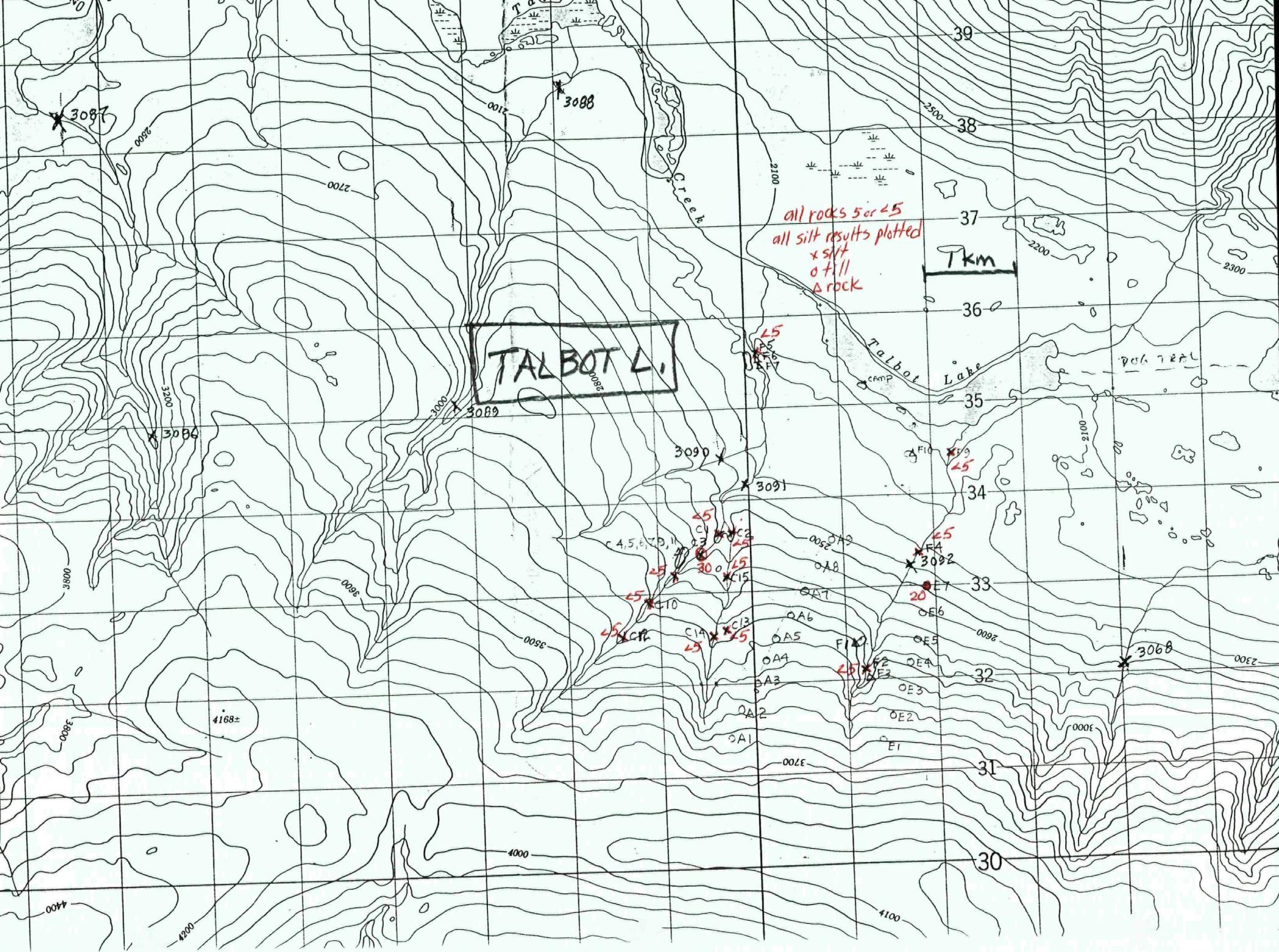
By
Gordon G Richards

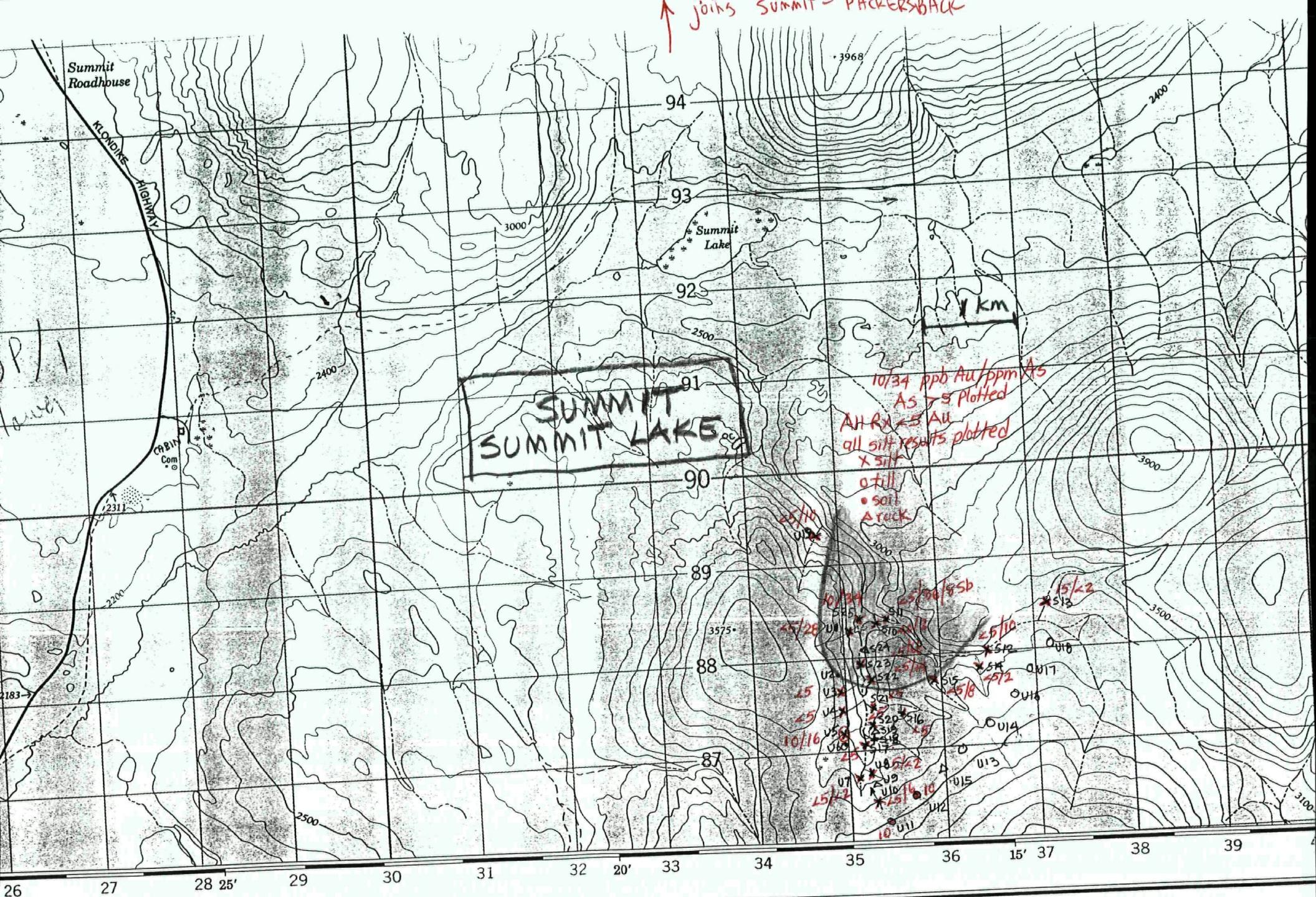
99-059







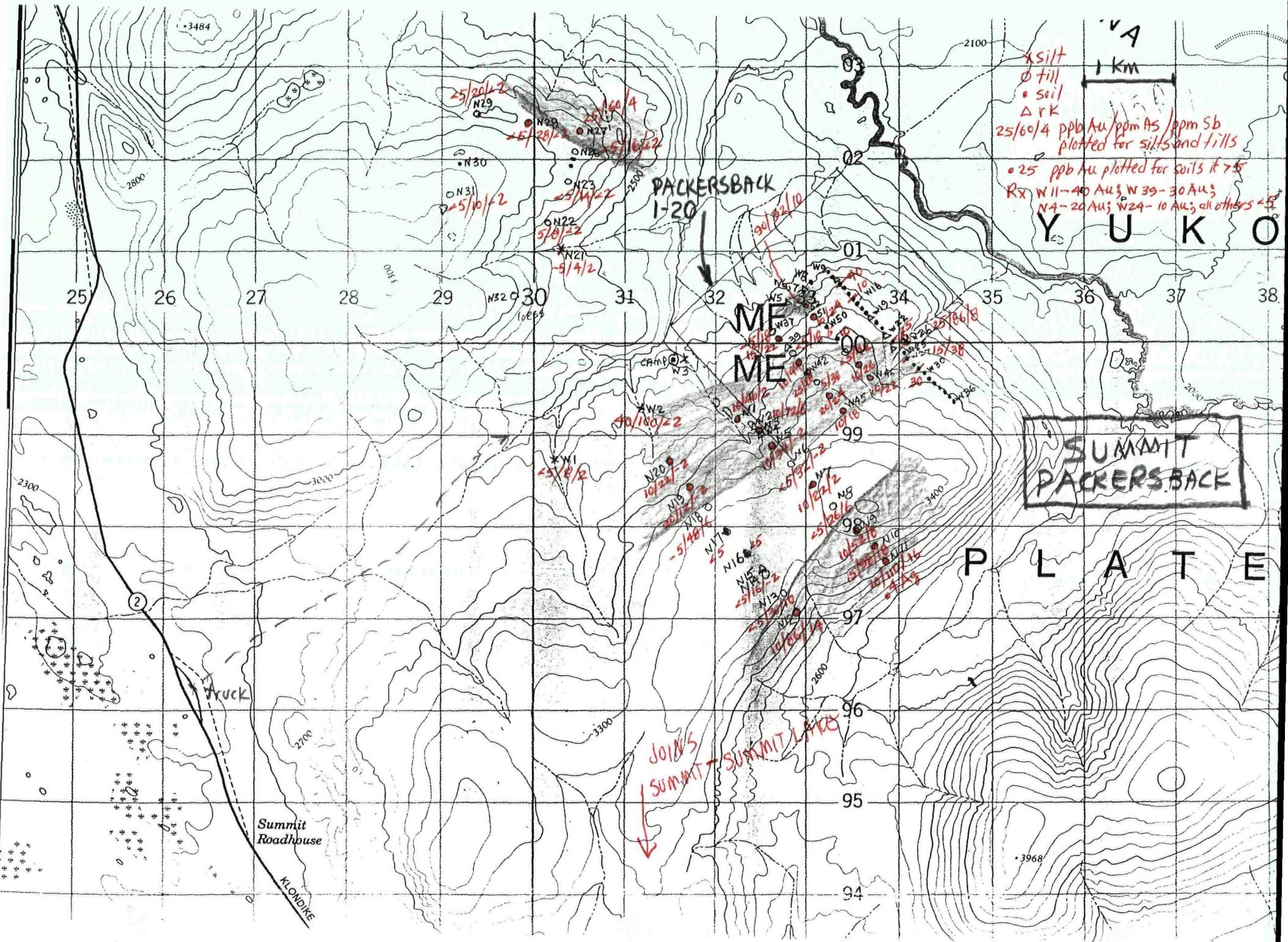


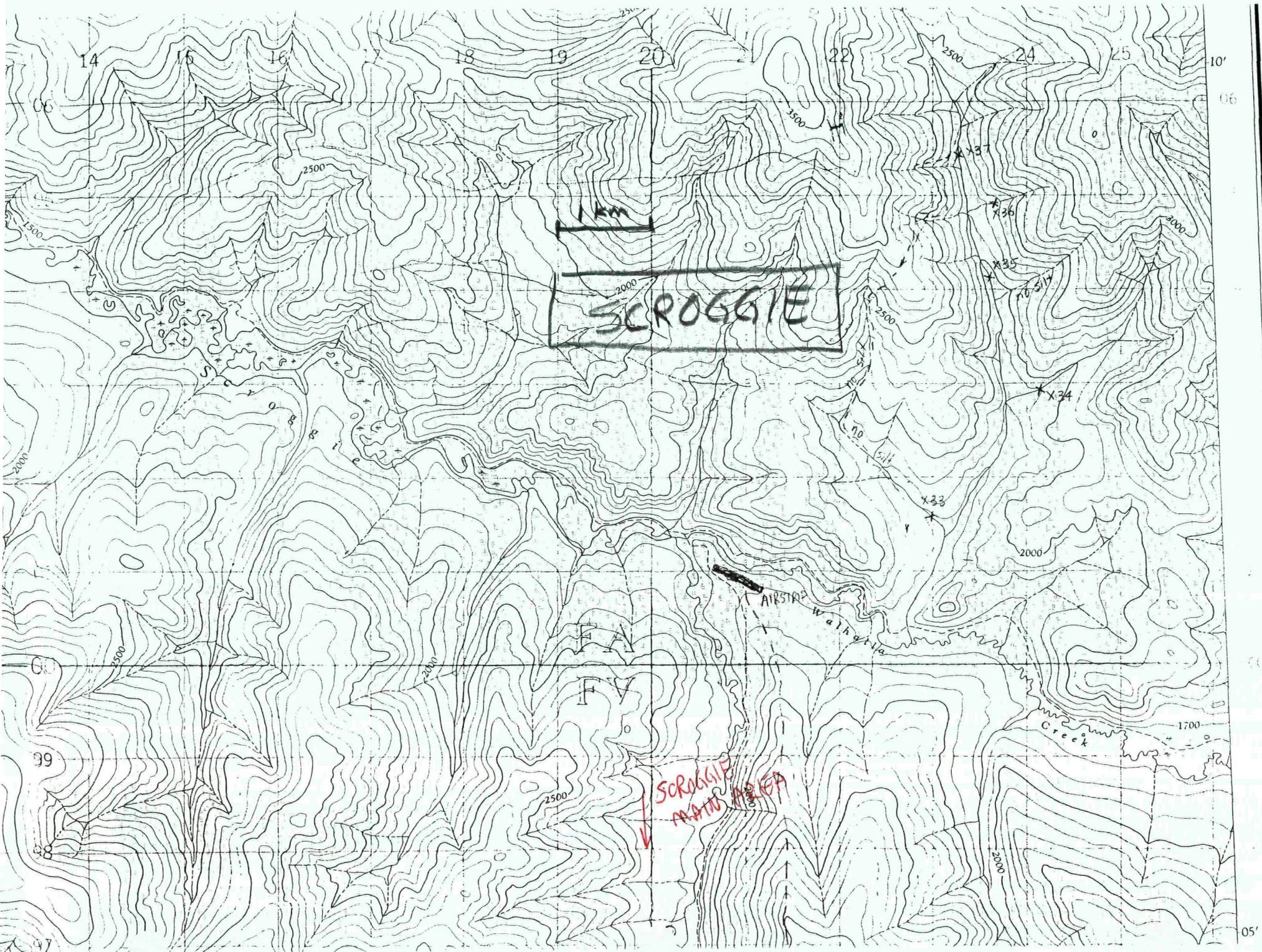


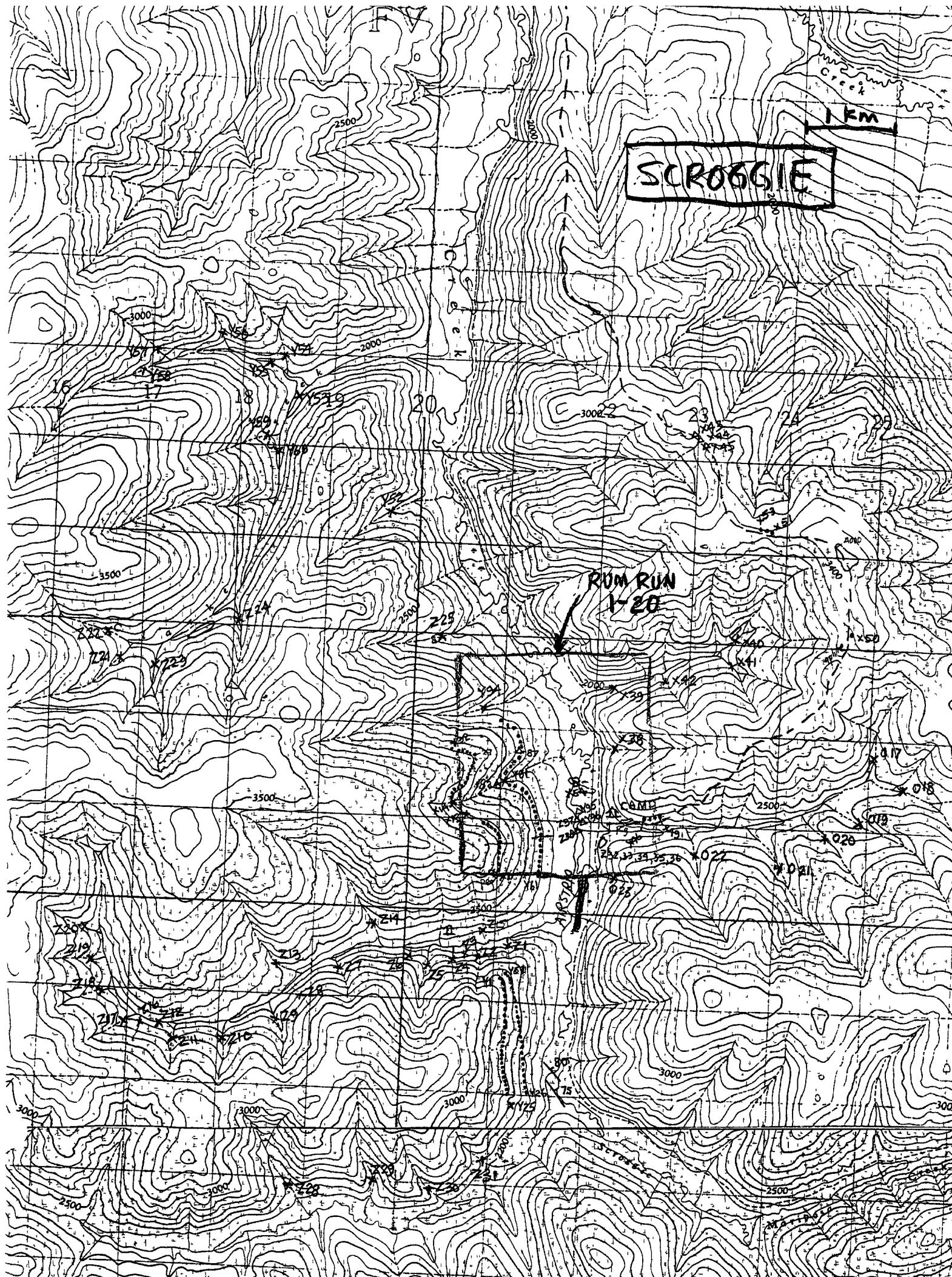
CRYSTAL LAKE

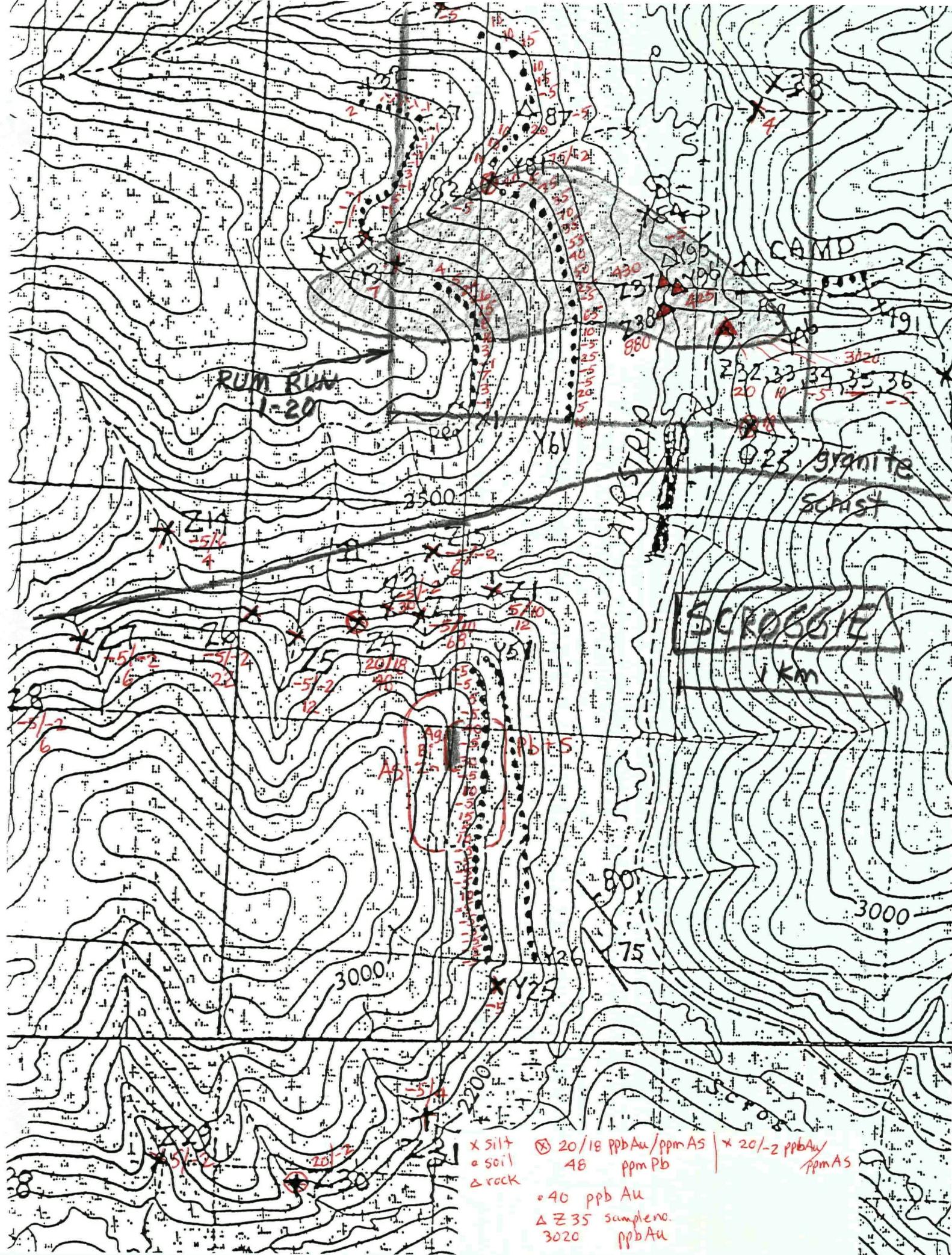
YUKON TERRITORY TERRITOIRE DU YUKON

Roads:	Routes:
hard surface	revêtement dur
.....	dual highway
.....	double chaussée
.....	2 lanes
.....	revêtement dur
.....	more than 2 lanes
.....	plus de 2 voies
.....	less than 2 lanes
.....	moins de 2 voies









The following is a summary of my prospecting activity for 1999. Mr. Dave Bennett assisted me for the period June 28 to July 29 and I returned to Yukon alone for the period Sept 8 to 17.

Prospecting Day

	June 28	drove Watson L - Whitehorse. Mining Rec for maps & publications
1	29	drove Mayo. Prospected Fields Ck.
2	30	staked JEZEK claims and sampled Fields Ck
3	July 1	staked JEZEK claims and sampled Fields Ck
4	2	staked JEZEK claims and sampled Fields Ck
5	3	Fields Ck. Sampled.
6	4	Fields Ck. Sampled.
7	5	recorded JEZEK claims. Minto Ck. Sampled
8	6	Minto Ck. Sampled.
9	7	Minto Ck. Sampled.
10	8	Minto Ck. Sampled.
11	9	Minto Ck. Sampled
12	10	Minto Ck. Sampled.
13	11	Talbot Lake. Flew into lake and sampled.
14	12	Talbot Lake. Sampled.
15	13	flew Mayo. Bought supplies and packed gear for backpacking.
16	14	Summit - Packersback. Walked into area and sampled.
17	15	Summit - Packersback. Sampled.
18	16	Summit - Packersback. Sampled.
19	17	Summit - Packersback. Sampled and packed to truck & returned camp.
20	18	Summit - Packersback. Staked PACKERSBACK claims.
21	19	Summit - Packersback. Out to truck, drove Mayo, recorded claims.
22	20	phoned Ken Galambos, organized for Scroggie Ck, drove Dawson.
23	21	Scroggie Ck. Flew in and sampled.
24	22	Scroggie Ck. Sampled.
25	23	Scroggie Ck. Sampled.
26	24	Scroggie Ck. Sampled.
27	25	Scroggie Ck. Sampled, flew Dawson, packed for Summit - Summit L
28	26	Summit - Summit L. Walked in and sampled.
29	27	Summit - Summit L. Sampled
	28	Summit - Summit L. Sampled, walked out, drove Whitehorse.
	29	drove Whitehorse into B.C.
	Sept 8	flew Vcr - Whs. Bus Whs - Dawson.
29	9	Scroggie Ck. Flew in and staked RUM RUN claims
30	10	Scroggie Ck. Staked RUM RUN claims.
31	11	Scroggie Ck. Sampled.
32	12	Scroggie Ck. Sampled.
33	13	Scroggie Ck. Sampled.
34	14	Scroggie Ck. Staked RUM RUN claims and sampled.
35	15	Scroggie Ck. Sampled & flew Dawson.
36	16	Scroggie Ck. Recorded claims, bus Dawson - Whitehorse.
	17	flew Whitehorse - Vancouver

The five areas investigated were all evaluated with an emphasis on geochemical surveys. Silt, rock, till and soil samples were collected throughout the areas as itemized in the following table.

	SILTS	ROCKS	TILLS	SOILS
FIELDS CK	10	26	29	10 (64)
MINTO CK	15	24	39	14 (35)
TALBOT L	13	11	14	2
SUMMIT PACKERSBACK	5	12	37	30
SUMMIT L	21	4	8	2
SCROGGIE CK	59	17	0	93 (119)
HALFWAY CK dropped				
SPRAGUE CK dropped				
TOTALS	123	94	127	151 (252)

Note: Only 151 of the 252 soil samples collected were actually analyzed.

Silt samples were collected from running streams by either collecting fine sediment with a scoop directly from the stream or by screening through a -25 mesh sieve into a plastic basin in order to obtain a sample containing about 40 gm of -80 mesh material for analysis. Attached field notes describe when screening process was used. Samples were collected in appropriately numbered gusseted kraft sample bags.

Rock samples were made of three to seven rock chips from float or outcrop as described in field notes and small enough to fit into a gusseted kraft sample bag.

Till samples were collected by a scoop from a pit dug by shovel to depths as much as one meter. This was necessary because of abundant loess throughout all areas except Scroggie Ck, which was unglaciated, and therefore lacking till. A shovel-dug pit gave a good look at the soil profile in order to distinguish till from other 'soil' types. As samples were ultimately to be screened to -150 mesh in the lab, one to three kg of till material was collected depending on coarseness of the sample and placed into spun polyester bags. Coarser sandy samples required bigger field samples in order to achieve this goal.

Soil samples were collected with a scoop from pits dug by pick, mattock or shovel or by auger from C-horizon wherever possible, although some B-horizon material was sometimes included in the sample. Samples were placed in numbered gusseted kraft bags for ultimate analysis of their -80 mesh fraction. Not all soils were analyzed, as can be seen in the table above. Where long lines of soils were collected and chips in soil pits and float and outcrop along the line failed to show any alteration or limonitic staining, and silts tills and rock samples yielded no anomalies, then these soils were not analyzed in order to save money on geochemical analysis.

Control of sample locations was by hip chain and compass with the use of 1:50,000 topo maps.

All samples were analyzed at Chemex Labs, 212 Brooksbank Ave, North Vancouver, B.C. Rock samples were crushed and pulverized, all other samples were dried and sieved (silts & soils -80 mesh, tills -150 mesh). Gold analyses were done on 30 gm samples by fire assay preconcentration and atomic absorption finish. A 32 element ICP analyses was done on most till and silt samples and some soil samples. Results are included in an Appendix.

Following is a discussion of the results for each of the five areas studied. On the accompanying maps, gold and some arsenic results are plotted for all silts and all anomalous gold results (>5 ppb) for other types of samples are also plotted.

FIELDS CREEK

Access was made by truck along the road from Mayo to Duncan Ck and then by traverse north of the road.

Initial work involved panning a few colors and flakes of gold from several pans taken along Fields Ck one km above the old bridge. Boulders of quartz and of phyllites containing numerous quartz veins and veinlets were abundant along Field Ck. Claims were staked, the JEZEK 1-50, based on this and the high arsenic, antimony +gold values in RGS data.

Till samples were collected at 300-m intervals along lines spaced one km apart over the gently sloping area south of Fields Ck that lacks outcrop, in an attempt to find a glacially smeared geochemical train, which from case studies elsewhere usually indicates a source 2 to 4 km up-ice. Loess was particularly abundant in this area.

Rock exposures were Hyland Group psammite and lesser phyllite containing abundant quartz veins to one meter wide and down to numerous hairline fracture fillings lying both in and crosscutting schistosity. Low intensity limonitic fractures were not uncommon in several areas. Psammite with pebble rich units were found on the hillside northwest of Fields Ck at several locations. Rock chips were collected from quartz-veined float and some similar outcrops.

Silts were collected from Fields Ck at four locations and all tributaries as shown. Fine silt was particularly abundant in Fields Ck as a coating on rocks and creek bottom and probably represents remobilized loess.

Soils were collected on steeper slopes where any loess and till that had previously existed had been removed by erosion. Care was taken to dig deep enough to get away from surficial mixing of any remnant loess or till so that a rocky C-horizon sample was generally obtained. In order to keep geochem costs down, many of these samples were not analyzed for gold because silts, tills and rock chips of float and outcrop were not even slightly anomalous for gold.

Results were discouraging although a modest target was outlined in the center of the claim block as shown on the map. Three silts, all of which were screened to -25 mesh, were anomalous for gold and arsenic, as were four tills. All other silts were not screened and it may be that results from screened samples, which involves collection of gravel from the creek bed is more indicative of the drainage than results from unscreened silts which undoubtedly contain far more of the remobilized loess. The anomalous silts do however occur in the same area as the four anomalous tills and could represent a glacially smeared anomaly with the target along the east edge of the claim block. The gap in the till samples between D114 and D115 occurs because of swampy ground.

It is recommended that additional samples be collected to better define the anomaly, to limit the up-ice extension of the anomaly and to search for mineralized float and outcrop.

MINTO CREEK

Access was made by truck from the dam on Mayo River and from the road along the north side of Minto Creek.

The area was selected for the occurrence of anomalous Au-As-Sb in RGS data in an area of rhyolite intruding Hyland Group psammite and phyllite. Loess deposits mantle till except on steeper slopes where soils and talus are more common. Samples were collected as shown on the map in order to look for a source of the anomalous RGS data with an emphasis on evaluating any glacial smearing. Two contiguous till samples L4 and L5 were anomalous for gold (75 and 100 ppb Au) but not for any other element on the ICP analyses. Rhyolite occurs in outcrop along the creek some 400-m west and in the bottom of till pits at L3, T17 and T18 indicating the gold could be related to mineralization along the contact between the rhyolite and phyllite. Source of the anomaly could be transported. Sample L4 was a yellow till with quartz and phyllite pebbles. Sample L5 was a dark brown till with pebbles of quartz, phyllite and greenstone.

The two samples anomalous for gold described above provide a low order target that could be looked at in the future but because of the lack of support in adjacent samples and no pathfinder element association no follow up prospecting is recommended at this time. The original two anomalous RGS silt samples were probably collected at low elevations and represent transported anomalies downstream along the south side of Minto Creek and not down off the north facing mountain slope as was originally thought.

TALBOT LAKE

Access was made by floatplane from Mayo to the south shore of Talbot Lake where a camp was established and from where traverses were made as shown on the accompanying map.

The area was selected for the somewhat spotty occurrence of gold, arsenic and antimony in RGS data in an area of few outcrops with the aim of using till sampling and detailed silt sampling to try and find a glacially smeared anomalous pattern leading to a new discovery. All outcrops were psammite and phyllite of the Hyland Group. A few spotty gold anomalies were found with no encouragement for further work. The anomalous RGS data was not repeated.

SUMMIT

Work on Summit area was done from two camps and is divided into two areas: PACKERSBACK and SUMMIT LAKE for discussion purposes. Access was made by packing a light camp into each area from the Klondike highway as shown on the accompanying maps along with sample locations. Both areas were chosen on the basis of stronger Au-As-Sb anomalies reported on RGS data within a large, 50 km by 10 km zone of silts variably anomalous for Sb and As with spotty Au, Sn, and W. This larger area lies immediately southwest of Tintina Trench and northeast of a northwest trending batholith, within schists, phyllites and gneisses of the Yukon Group.

Packersback

The main creek flowing northeast into Crooked Creek cuts through a glacial outwash bench sloping gently northeast with its upper limit at 2700ft elevation. Material below this elevation is glacial outwash although underlying till and possibly outcrop may be exposed locally along drainages. Sampling was limited to elevations above this level except for a few silts. The area lies just beyond the limits of the most recent McConnell Glaciation but underwent older Reid Glaciation and probably even a Pre-Reid glacial event.

Outcrop was sparse but made up of moderately to gently dipping schists, phyllites and gneisses. Several pieces of float of bleached and silicified schist(?) with quartz veinlets and numerous limonitic fractures bordering on a breccia texture were found at N2, N4, W11, W22, W26 and W39. Highest gold value was 40 ppb at N11. The PACKERSBACK 1-20 Quartz Claims were staked on the strength of the intense alteration seen in float and the RGS data.

Numerous gold, arsenic and antimony anomalies particularly in tills, but also in silts and soils occur and might be explained by glacial smearing from an as yet unknown source. More work is warranted. Coincident Au-As-Sb till anomalies occur at the southeast limit of sampling (N9 to N12), two km east of camp (W52), and in the north edge of sampling (N27) and warrant further investigation. About one km west of N27, a long (500m) drumlinoid feature runs east west with N29 lying on the tail end indicating a westerly direction of glacial transport in this area. The anomalous geochem pattern shown on the accompanying map could be indicative of a similar direction of glacial transport, perhaps towards 250 degrees.

The fifty km long Sb-As RGS target mentioned above thus appears to have discreet zones of anomalous gold with arsenic and antimony associated with it and is an excellent target for intensive silt and till sampling like the one described above for a small portion of this anomaly. RGS data is sufficiently widespread and sampled materials contain a variable loess, outwash and till component, ^{soil} that strong gold mineralization could easily exist within this area.

Therefore, detailed examination of targets outlined above and more regional prospecting of the general area are both highly recommended.

Summit Lake

Four RGS silt samples collected along the north flowing creek, south of Summit Lake, contained some of the strongest As and Sb results in the area with weakly anomalous Au and spotty Sn, Zn and Pb. Detailed recce style sampling in this area put a limit on the RGS data as indicated on the map. All Au, As, and Sb anomalous results occur in samples collected southeast of camp and could be caused by glacial smearing from a source to the northeast. Additional work is warranted in this direction.

SCROGGIE CREEK

Access to the area was by fixed wing aircraft to the airstrip on Scroggie Creek where placer mining was in progress two km downstream operating out of a camp one km downstream on the east side of the valley. The area was selected because of the writer's knowledge of arsenopyrite in placer concentrates along Scroggie Ck below the mouth of Steven's Ck and silicification seen during placer mining along Scroggie Ck directly opposite the camp mentioned above. Upon arrival, it was evident that recent staking had taken place on the hills southeast of the airstrip along east west location lines and a staking crew was met the same day returning from staking on upper Mariposa Creek about six km east of the airstrip. Attention for detailed soil lines was therefor focused on the west side of Scroggie Creek. A granite batholith containing numerous roof pendants of gneisses and schists of Yukon Group is in contact with these same country rocks along an east west contact that crosses Scroggie Creek at the south end of the airstrip. Much pegmatite occurs within the granite and in fact a large body of it encompasses the gold target described below lying west of camp. Silt samples were collected regionally from all small pups and soil samples were collected as shown well above the uppermost bench along Scroggie Creek.

A grab sample of dozer-disturbed outcrop across the small creek south of camp yielded a value of 3020 ppb Au from crackled pegmatite containing 1 or 2 percent pyrite. Other samples of less altered material were 20 ppb Au or less. West of here along Scroggie Ck, grab samples of sulfide mineralized pegmatite apparently from ripped bedrock from previous placer mining activity returned values of 430,425, and 880ppb Au. Soils collected at 50m intervals along two lines 400m and 800m west of this location on Scroggie Ck returned anomalous gold values up to 70 ppb Au over total lengths of one km and about one-half km. Thus, a large area two-km east west by one-km north-south forms a well defined gold target that should be further evaluated by prospecting for mineralized float and outcrop and by detailed soil sampling. Attention should be paid to limiting the extent of this zone, as it is at present open to the east and west. The RUM RUN 1-20 Quartz Claims were staked in September to cover this target at which time some of the data described above was collected.

Two km south of here, in phyllites, schists and gneisses, another soil sample line gave gold values of 5 to 40 ppb over 400 m with some associated anomalous Bi (16 and 6 ppm), Ag (2.0, 1.6 and 2.6 ppm), Zn (102,314 and 160 ppm) within more widespread anomalous Pb (26 to 308 ppm), S (.03 to .43 percent) and As (12 to 36 ppm). The adjacent soil line was not run, but two silts Z4 and Z30 (both 20 ppb Au) may be indicative of a much larger geochemically anomalous zone. Although geochemically anomalous response is not strong it must be remembered that the area has not been glaciated and that leaching of surficial metals may be so intense that little remains in soils to provide a more positive response. Certainly the arsenopyrite in placer concentrates was not indicated in the RGS data nor was any of the placer gold. Detailed soil sampling on a grid should be undertaken as well as prospecting for mineralized outcrop and float.

Respectively submitted



Gordon G Richards



Indian and Northern
Affairs Canada

Affaires indiennes
et du Nord Canada

MINING RECORDER

P O Box 10,

Mayo, Y T.

YOB 1MO

Phone:(867) 996-2256

Fax.(867) 996-2617

7840-8

July 27, 1999

Gordon Richards
6170 Tisdall Street
Vancouver BC
V5Z 3N4

Dear Gordon

I enclose Grant(s) and metal tags for the following Quartz claim(s)

GRANT NUMBER

YC01793 - YC1842

CLAIM

Jezek 1- 50

Pursuant to Section 46(1) of the Yukon Quartz Mining Act, tags shall be affixed securely to the claim posts. This is to be done as soon as reasonably possible after the recording of the claims, and in the event of default, entry for the claims may, after a hearing, be cancelled upon the application of any person who, in the opinion of the Mining Recorder, has been misled by the absence of the tags.

Claim owners are reminded that the maintenance of claim posts, which must be properly staked, is a continuing responsibility of the claim owner. This includes ensuring that claim tags are properly affixed to posts at all times.

All work performed on a mineral claim or prospecting lease must now comply with the operating conditions as outlined in Schedule I of the **Mining Land Use Regulations** and may require an approved notification or operating plan. For more information please contact the Mining Land Use office in Whitehorse at (867) 667 - 3265 or contact the district Mining Inspector.

Yours truly,

Chad Santo
Mining Recorder
Mayo Mining District

encl.

Canada



Indian and Northern
Affairs Canada

Affaires indiennes
et du Nord Canada

MINING RECORDER

P.O Box 10,
Mayo, Y.T.
YOB 1MO
Phone:(867) 996-2256
Fax.(867) 996-2617

7840-8

August 26, 1999

Gordon Richards
6170 Tisdall Street
Vancouver BC
V5Z 3N4

Dear Gordon

I enclose Grant(s) and metal tags for the following Quartz claim(s).

GRANT NUMBER

YC01859 - YC01878

CLAIM

Packersback 1 - 20

Pursuant to Section 46(1) of the Yukon Quartz Mining Act, tags shall be affixed securely to the claim posts. This is to be done as soon as reasonably possible after the recording of the claims, and in the event of default, entry for the claims may, after a hearing, be cancelled upon the application of any person who, in the opinion of the Mining Recorder, has been misled by the absence of the tags.

Claim owners are reminded that the maintenance of claim posts, which must be properly staked, is a continuing responsibility of the claim owner. This includes ensuring that claim tags are properly affixed to posts at all times.

All work performed on a mineral claim or prospecting lease must now comply with the operating conditions as outlined in Schedule I of the **Mining Land Use Regulations** and may require an approved notification or operating plan. For more information please contact the Mining Land Use office in Whitehorse at (867) 667 - 3265 or contact the district Mining Inspector.

Yours truly,

Chad Santo
Mining Recorder
Mayo Mining District

encl

Canada



Indian and Northern
Affairs Canada

Affaires indiennes
et du Nord Canada

Dawson Mining District

P. O. Box 249

Dawson City, Yukon

Y0B 1G0

PH: (867) 993-5343

FAX: (867) 993-6747

7720-6-D-Q

19 November 1999

Gordon Richards
6170 Tisdall Street
Vancouver, B. C. V5Z 3N4

Dear Sir:

I have enclosed Grants for the following Mineral Claims. Claim tags are being held in our office for pickup.

GRANT NUMBER

CLAIM NAME

YC17658 - YC17677 inclusive

Rum Run 1 - 20 inclusive

Pursuant to Section 45(1) of the Yukon Quartz Mining Act, tags shall be securely affixed to the claim posts. This is to be done as soon as reasonably possible after the granting of the claims, and in the event of default, the claims may be cancelled upon the application of any person who, in the opinion of the Mining Recorder, has been misled by the lack of such tags.

Claim holders are reminded that the maintenance of claim posts, which must be properly in place, is a continuing responsibility of the claim owner. This includes ensuring that claim tags are properly affixed to posts at all times.

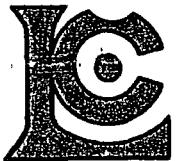
All work performed on a claim or lease must now comply with the operating conditions as outlined in Schedule I of the **Mining Land Use Regulations** and may require an approved notification or operating plan. For more information please contact the Mining Land Use office in Whitehorse at (867)667-3265.

Yours truly,

Jen Couture
Kathryn Perry
Mining Recorder

Enclosures/vlr

Canada



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: RICHARDS, GORDON

6170 TISDALL ST.,
VANCOUVER, BC
V5Z 3N4

A9925634

Comments: ATTN: GORDON RICHARDS

CERTIFICATE

A9925634

(NDJ) - RICHARDS, GORDON

Project: TIN
P.O. #:

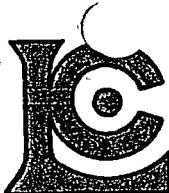
samples submitted to our lab in Vancouver, BC.
This report was printed on 17-AUG-1999.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	110	Dry, sieve to -80 mesh
202	110	save reject

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	110	Au ppb: Fuse 30 g sample	FA-AAS	5	10000



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221 FAX: 604-984-0218

To: RICHARDS, GORDON

6170 TISDALL ST.,
 VANCOUVER, BC
 V5Z 3N4

Project: TIN
 Comments: ATTN: GORDON RICHARDS

Page 1 of 1
 Total Pages : 3
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 Invoice No.: 19925634
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 Account: NDJ

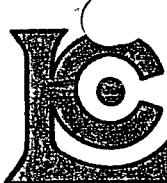
CERTIFICATE OF ANALYSIS A9925634

SAMPLE	PREP CODE	Au ppb FA+AA											
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99B 33	201	202	< 5										
99B 34	201	202	< 5										
99B 35	201	202	< 5										
99B 36	201	202	< 5										
99B 38	201	202	< 5										
99B 40	201	202	< 5										
99B 41	201	202	25										
99B 42	201	202	< 5										
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99W 15	201	202	10										
99W 16	201	202	< 5										
99W 17	201	202	< 5										

SOILS

CERTIFICATION.

Thaddeus Nichols



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221 FAX: 604-984-0218

o: RICHARDS, GORDON

6170 TISDALL ST.,
 VANCOUVER, BC
 V5Z 3N4

Project: TIN
 Comments: ATTN: GORDON RICHARDS

Page : 2
 Total Pages : 3
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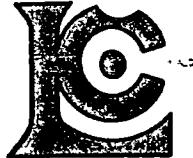
CERTIFICATE OF ANALYSIS A9925634

SAMPLE	PREP CODE	Au ppb FA+AA											
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99W 21	201	202	< 5										
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99W 33	201	202	< 5										
99W 34	201	202	< 5										
99W 35	201	202	< 5										
99W 36	201	202	< 5										
99W 49	201	202	10										
99W 50	201	202	5										
99Y 1	201	202	< 5										
99Y 2	201	202	< 5										
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99Y 4	201	202	< 5										
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99Y 21	201	202	< 5										
99Y 22	201	202	< 5										
99Y 23	201	202	< 5										
99Y 24	201	202	< 5										

SGCS

CERTIFICATION:

Richardson



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To RICHARDS, GORDON

6170 TISDALL ST.,
 VANCOUVER, BC
 V5Z 3N4

Project: TIN
 Comments: ATTN: GORDON RICHARDS

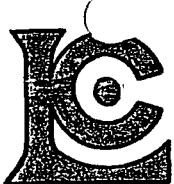
Page 1 of 3
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 Account NDJ

CERTIFICATE OF ANALYSIS A9925634

SAMPLE	PREP CODE	Au ppb FA+AA										
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99Y 62	201	202	5									
99Y 63	201	202	20									
99Y 64	201	202	< 5									
99Y 65	201	202	< 5									
99Y 66	201	202	25									
99Y 67	201	202	< 5									
99Y 68	201	202	10									
99Y 69	201	202	65									
99Y 70	201	202	< 5									
99Y 71	201	202	25									
99Y 72	201	202	50									
99Y 73	201	202	40									
99Y 74	201	202	55									
99Y 75	201	202	35									
99Y 76	201	202	70									
99Y 77	201	202	35									
99Y 78	201	202	75									
99Y 79	201	202	< 5									
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99Y 84	201	202	10									
99Y 85	201	202	10									
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99Y 88	201	202	< 5									
99Y 89	201	202	15									
99Y 90	201	202	10									
99Y 91	201	202	15									
99Y 92	201	202	10									
99Y 93	201	202	10									

SOILS

CERTIFICATION: Gordon Richards



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o: RICHARDS, GORDON

6170 TISDALL ST.,
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 V5Z 3N4

A9925637

Comments: ATTN GORDON RICHARDS

CERTIFICATE

A9925637

(NDJ) - RICHARDS, GORDON

Project: TIN
 P.O. #:

Samples submitted to our lab in Vancouver, BC.
 This report was printed on 23-AUG-1999.

SAMPLE PREPARATION

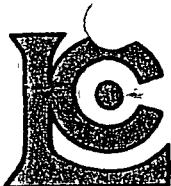
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
216	127	sieve to -150 mesh
202	127	save reject
229	127	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	127	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
2118	127	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
2119	127	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	127	As ppm: 32 element, soil & rock	ICP-AES	2	10000
557	127	B ppm: 32 element, rock & soil	ICP-AES	10	10000
2121	127	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	127	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123	127	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	127	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125	127	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	500
2126	127	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127	127	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128	127	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	127	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130	127	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
2131	127	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2132	127	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151	127	La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134	127	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135	127	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136	127	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137	127	Na %: 32 element, soil & rock	ICP-AES	0.01	10.00
2138	127	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139	127	P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140	127	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
551	127	S %: 32 element, rock & soil	ICP-AES	0.01	5.00
2141	127	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142	127	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143	127	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144	127	Ti %: 32 element, soil & rock	ICP-AES	0.01	10.00
2145	127	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146	127	U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147	127	V ppm: 32 element, soil & rock	ICP-AES	1	10000
2148	127	W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149	127	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000



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 V5Z 3N4

Page 1-A
 Total Pages : 4
 Certificate Date: 23-AUG-1999
 Invoice No.: 19925637
 P.O. Number:
 Account : NDJ

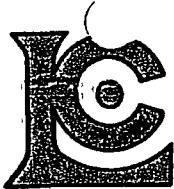
Project : TIN
 Comments: ATTN: GORDON RICHARDS

CERTIFICATE OF ANALYSIS A9925637

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
99A 1	216 202		< 5	< 0.2	1.65	12	< 10	220	< 0.5	< 2	0.11	< 0.5	13	24	22	3.03	< 10	< 1	0.03	10	0.45
99A 2	216 202		< 5	< 0.2	1.45	14	< 10	160	< 0.5	< 2	0.12	< 0.5	18	22	27	3.31	< 10	< 1	0.04	40	0.46
99A 3	216 202		< 5	< 0.2	1.61	18	< 10	290	< 0.5	< 2	0.26	< 0.5	9	24	28	2.93	< 10	< 1	0.05	30	0.49
99A 4	216 202		< 5	< 0.2	1.75	12	< 10	210	< 0.5	< 2	0.18	< 0.5	7	25	25	2.78	< 10	< 1	0.05	30	0.48
99A 5	216 202		< 5	0.2	1.95	22	< 10	290	< 0.5	< 2	0.29	< 0.5	10	27	34	3.45	< 10	< 1	0.07	30	0.55
99A 6	216 202		< 5	< 0.2	2.03	16	< 10	140	< 0.5	< 2	0.13	< 0.5	17	25	32	4.02	< 10	< 1	0.05	50	0.65
99A 7	216 202		< 5	< 0.2	1.84	10	< 10	130	< 0.5	< 2	0.18	< 0.5	9	23	27	3.26	< 10	< 1	0.05	50	0.66
99A 8	216 202		< 5	0.2	1.75	10	< 10	270	< 0.5	< 2	0.29	< 0.5	16	24	23	2.44	< 10	< 1	0.05	20	0.48
99A 9	216 202		< 5	< 0.2	1.01	10	< 10	190	< 0.5	< 2	0.36	< 0.5	10	16	18	1.90	< 10	< 1	0.03	20	0.33
99D 113	216 202		< 5	< 0.2	1.32	18	< 10	330	< 0.5	< 2	0.20	< 0.5	7	24	25	2.29	< 10	< 1	0.03	10	0.38
99D 114	216 202		10	0.2	1.50	30	< 10	360	< 0.5	< 2	0.09	0.5	9	22	40	3.09	< 10	< 1	0.05	20	0.33
99D 116	216 202		15	0.2	1.21	164	< 10	130	< 0.5	< 2	0.22	< 0.5	10	19	35	2.94	< 10	< 1	0.14	30	0.36
99D 119	216 202		< 5	< 0.2	1.57	14	< 10	130	< 0.5	< 2	0.11	< 0.5	5	21	12	2.06	< 10	< 1	0.05	20	0.36
99D 120	216 202		< 5	< 0.2	2.30	22	< 10	170	< 0.5	< 2	0.06	< 0.5	12	27	36	3.56	< 10	< 1	0.05	40	0.60
99D 121	216 202		< 5	< 0.2	1.66	40	< 10	280	< 0.5	< 2	0.37	< 0.5	7	24	17	2.23	< 10	< 1	0.07	20	0.42
99D 122	216 202		< 5	< 0.2	1.92	6	< 10	120	< 0.5	< 2	0.09	< 0.5	8	23	27	2.84	< 10	< 1	0.03	40	0.59
99D 123	216 202		< 5	< 0.2	1.88	14	< 10	150	< 0.5	< 2	0.05	< 0.5	8	25	25	2.60	< 10	< 1	0.05	20	0.46
99D 134	216 202		5	< 0.2	1.42	10	10	260	< 0.5	< 2	0.29	< 0.5	7	23	18	2.04	< 10	< 1	0.03	10	0.38
99D 137	216 202		10	0.2	1.34	90	10	150	< 0.5	< 2	0.36	< 0.5	12	18	37	3.01	< 10	< 1	0.11	40	0.49
99D 138	216 202		5	< 0.2	1.34	16	< 10	270	< 0.5	< 2	0.29	< 0.5	8	22	17	2.42	< 10	< 1	0.07	30	0.42
99D 139	216 202		5	< 0.2	1.34	26	< 10	170	< 0.5	< 2	0.28	< 0.5	12	16	38	3.49	< 10	< 1	0.09	50	0.37
99D 140	216 202		< 5	< 0.2	1.64	16	< 10	230	< 0.5	< 2	0.29	< 0.5	9	24	23	2.88	< 10	< 1	0.07	30	0.47
99D 141	216 202		< 5	< 0.2	1.63	16	< 10	370	< 0.5	< 2	0.48	< 0.5	8	24	22	2.47	< 10	< 1	0.06	20	0.47
99D 142	216 202		10	< 0.2	1.32	80	10	190	< 0.5	< 2	0.29	< 0.5	11	18	28	2.71	< 10	< 1	0.07	30	0.41
99D 143	216 202		30	< 0.2	1.60	206	< 10	150	< 0.5	< 2	0.33	< 0.5	14	21	39	3.44	< 10	< 1	0.13	40	0.50
99D 145	216 202		< 5	< 0.2	1.23	28	< 10	100	< 0.5	< 2	0.10	< 0.5	10	17	28	2.52	< 10	< 1	0.07	30	0.35
99D 146	216 202		< 5	< 0.2	1.50	14	< 10	250	< 0.5	< 2	0.20	< 0.5	9	25	25	2.58	< 10	< 1	0.07	30	0.44
99D 147	216 202		< 5	< 0.2	1.46	18	< 10	310	< 0.5	< 2	0.24	< 0.5	9	24	25	2.62	< 10	< 1	0.07	30	0.44
99D 148	216 202		55	< 0.2	1.23	16	< 10	220	< 0.5	< 2	0.26	< 0.5	6	19	21	2.30	< 10	< 1	0.06	30	0.43
99D 149	216 202		10	< 0.2	1.17	10	< 10	240	< 0.5	< 2	0.19	< 0.5	7	19	17	2.04	< 10	< 1	0.05	20	0.37
99E 1	216 202		< 5	< 0.2	1.74	10	< 10	90	< 0.5	< 2	0.08	< 0.5	7	22	18	3.58	< 10	< 1	0.04	30	0.61
99E 3	216 202		< 5	< 0.2	1.55	12	< 10	100	< 0.5	< 2	0.10	< 0.5	18	22	13	3.73	< 10	< 1	0.04	10	0.46
99E 4	216 202		< 5	< 0.2	1.75	12	< 10	130	< 0.5	< 2	0.10	< 0.5	20	21	26	3.64	< 10	< 1	0.04	30	0.50
99E 6	216 202		< 5	< 0.2	1.49	36	< 10	130	< 0.5	< 2	0.23	< 0.5	13	22	34	3.34	< 10	< 1	0.05	30	0.57
99E 7	216 202		20	0.2	1.91	22	< 10	330	< 0.5	< 2	0.24	< 0.5	17	26	26	3.05	< 10	< 1	0.06	30	0.50
99L 1	216 202		25	< 0.2	1.64	22	< 10	280	< 0.5	< 2	0.21	< 0.5	10	25	35	3.00	< 10	< 1	0.13	30	0.45
99L 2	216 202		< 5	< 0.2	0.98	14	< 10	170	< 0.5	< 2	0.15	< 0.5	7	16	26	1.95	< 10	< 1	0.05	30	0.30
99L 3	216 202		< 5	< 0.2	1.75	20	< 10	390	0.5	< 2	0.19	< 0.5	8	30	27	2.73	< 10	< 1	0.08	20	0.43
99L 4	216 202		75	< 0.2	1.01	24	< 10	110	< 0.5	< 2	0.05	< 0.5	9	15	32	2.28	< 10	< 1	0.05	30	0.26
99L 5	216 202		100	< 0.2	1.30	12	< 10	280	< 0.5	< 2	0.21	< 0.5	7	22	22	2.20	< 10	< 1	0.04	20	0.40

TILLIS

CERTIFICATION:



Chemex Labs Ltd.

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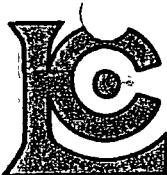
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CERTIFICATE OF ANALYSIS A9925637

SAMPLE	PREP CODE	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
99A 1	216 202	235	< 1 < 0.01	22	330	16	0.01	< 2	2	15	0.02	< 10	< 10	33	< 10	66	
99A 2	216 202	235	< 1 < 0.01	26	390	18	0.01	< 2	1	19	0.02	< 10	< 10	23	< 10	76	
99A 3	216 202	230	< 1 < 0.01	23	430	16	< 0.01	< 2	3	26	0.03	< 10	< 10	31	< 10	68	
99A 4	216 202	170	< 1 < 0.01	19	300	20	0.01	< 2	3	24	0.03	< 10	< 10	32	< 10	56	
99A 5	216 202	285	< 1 < 0.01	26	400	20	0.01	< 2	3	36	0.05	< 10	< 10	37	< 10	74	
99A 6	216 202	295	< 1 < 0.01	29	280	26	0.02	< 2	1	24	0.01	< 10	< 10	25	< 10	80	
99A 7	216 202	175	< 1 < 0.01	26	410	16	< 0.01	< 2	1	22	0.01	< 10	< 10	20	< 10	74	
99A 8	216 202	500	< 1 < 0.01	24	430	20	0.03	< 2	3	32	0.03	< 10	< 10	33	< 10	60	
99A 9	216 202	670	< 1 < 0.01	19	550	8	0.01	< 2	1	30	0.02	< 10	< 10	22	< 10	44	
99D 113	216 202	240	< 1 < 0.01	19	470	8	< 0.01	< 2	3	18	0.04	< 10	< 10	37	< 10	60	
99D 114	216 202	365	< 1 < 0.01	26	610	24	0.01	< 2	3	12	0.01	< 10	< 10	35	< 10	84	
99D 116	216 202	480	< 1 < 0.01	31	550	20	< 0.01	4	3	20	0.03	< 10	< 10	22	< 10	76	
99D 119	216 202	140	< 1 < 0.01	12	360	12	< 0.01	< 2	1	10	0.03	< 10	< 10	33	< 10	42	
99D 120	216 202	325	< 1 < 0.01	28	170	12	< 0.01	< 2	2	9	0.03	< 10	< 10	31	< 10	64	
99D 121	216 202	195	< 1 < 0.01	16	440	10	< 0.01	< 2	2	27	0.03	< 10	< 10	33	< 10	48	
99D 122	216 202	245	< 1 < 0.01	19	260	8	< 0.01	< 2	1	8	0.01	< 10	< 10	21	< 10	64	
99D 123	216 202	195	< 1 < 0.01	21	110	12	< 0.01	< 2	1	9	0.03	< 10	< 10	30	< 10	56	
99D 134	216 202	185	< 1 < 0.01	16	400	10	< 0.01	< 2	3	22	0.04	< 10	< 10	34	< 10	46	
99D 137	216 202	510	< 1 < 0.01	31	590	16	< 0.01	< 2	2	23	0.03	< 10	< 10	19	< 10	72	
99D 138	216 202	305	< 1 < 0.01	19	510	10	< 0.01	< 2	2	32	0.04	< 10	< 10	30	< 10	60	
99D 139	216 202	280	< 1 < 0.01	34	440	18	< 0.01	< 2	3	32	< 0.01	< 10	< 10	14	< 10	76	
99D 140	216 202	310	< 1 < 0.01	25	230	8	< 0.01	< 2	3	30	0.04	< 10	< 10	32	< 10	56	
99D 141	216 202	265	< 1 < 0.01	22	480	8	0.02	< 2	3	38	0.03	< 10	< 10	34	< 10	56	
99D 142	216 202	575	< 1 < 0.01	27	480	12	< 0.01	< 2	2	28	0.02	< 10	< 10	20	< 10	64	
99D 143	216 202	545	< 1 < 0.01	34	440	18	< 0.01	2	2	24	0.02	< 10	< 10	20	< 10	76	
99D 145	216 202	570	< 1 < 0.01	27	440	14	< 0.01	< 2	1	9	0.03	< 10	< 10	18	< 10	56	
99D 146	216 202	275	< 1 < 0.01	22	390	12	< 0.01	< 2	3	20	0.05	< 10	< 10	35	< 10	64	
99D 147	216 202	325	< 1 < 0.01	24	450	8	< 0.01	< 2	3	22	0.04	< 10	< 10	34	< 10	68	
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99D 149	216 202	200	< 1 < 0.01	18	360	8	< 0.01	< 2	2	16	0.03	< 10	< 10	25	< 10	50	
99E 1	216 202	195	< 1 < 0.01	16	350	24	0.01	< 2	1	10	0.01	< 10	< 10	19	< 10	64	
99E 3	216 202	715	< 1 < 0.01	15	420	24	0.03	< 2	1	15	0.02	< 10	< 10	29	< 10	58	
99E 4	216 202	530	< 1 < 0.01	28	340	22	0.01	< 2	1	18	0.01	< 10	< 10	23	< 10	82	
99E 6	216 202	430	< 1 < 0.01	25	470	20	< 0.01	< 2	2	20	0.02	< 10	< 10	24	< 10	64	
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99L 1	216 202	325	< 1 < 0.01	30	350	16	< 0.01	< 2	3	23	0.03	< 10	< 10	34	< 10	76	
99L 2	216 202	240	< 1 < 0.01	20	320	8	< 0.01	< 2	2	14	0.03	< 10	< 10	18	< 10	46	
99L 3	216 202	220	< 1 < 0.01	23	100	24	< 0.01	< 2	4	24	0.05	< 10	< 10	49	< 10	68	
99L 4	216 202	380	< 1 < 0.01	22	150	14	< 0.01	< 2	3	8	0.03	< 10	< 10	19	< 10	46	
99L 5	216 202	210	< 1 < 0.01	20	270	10	< 0.01	< 2	3	20	0.05	< 10	< 10	37	< 10	58	

T115

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Analytical Chemists * Geochemists * Registered Assayers
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o. RICHARDS, GORDON

6170 TISDALL ST.,
 VANCOUVER, BC
 V5Z 3N4

Project: TIN
 Comments: ATTN: GORDON RICHARDS

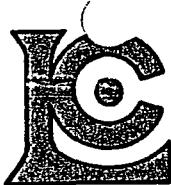
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 Total Pages : 4
 Certificate Date: 23-AUG-1999
 Invoice No.: 19925637
 P.O. Number:
 Account : NDJ

CERTIFICATE OF ANALYSIS A9925637

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
99L 6	216 202	< 5 < 0.2	1.12	28	< 10	250	< 0.5	< 2	0.16	< 0.5	8	19	35	2.54	< 10	< 1	0.07	30	0.31	
99L 7	216 202	10 < 0.2	1.08	14	< 10	180	< 0.5	< 2	0.20	< 0.5	6	17	16	1.95	< 10	< 1	0.03	20	0.35	
99L 8	216 202	10 < 0.2	1.04	18	< 10	110	< 0.5	< 2	0.02	< 0.5	9	14	23	2.30	< 10	< 1	0.03	30	0.32	
99L 9	216 202	< 5 < 0.2	1.29	16	< 10	130	< 0.5	< 2	0.06	< 0.5	14	18	24	2.74	< 10	< 1	0.05	20	0.35	
99L 10	216 202	< 5 < 0.2	1.35	12	< 10	100	< 0.5	< 2	0.15	< 0.5	9	21	23	2.14	< 10	< 1	0.04	10	0.38	
99L 11	216 202	< 5 < 0.2	1.54	10	< 10	100	< 0.5	< 2	0.13	< 0.5	5	23	13	2.16	< 10	< 1	0.05	20	0.38	
99L 12	216 202	< 5 < 0.2	2.44	32	< 10	450	< 0.5	< 2	0.29	< 0.5	15	39	48	3.77	< 10	< 1	0.20	30	0.63	
99L 13	216 202	< 5 < 0.2	1.34	18	< 10	260	< 0.5	< 2	0.15	< 0.5	7	19	29	2.17	< 10	< 1	0.05	30	0.35	
99N 1	216 202	10 < 0.2	1.29	46	< 10	180	< 0.5	< 2	0.10	< 0.5	8	23	31	2.36	< 10	< 1	0.08	30	0.32	
99N 3	216 202	10 < 0.2	0.83	72	< 10	170	< 0.5	< 2	0.10	< 0.5	8	14	32	2.10	< 10	< 1	0.08	30	0.18	
99N 5	216 202	10 < 0.2	1.40	34	< 10	320	< 0.5	< 2	0.20	< 0.5	6	23	29	2.16	< 10	< 1	0.10	20	0.38	
99N 6	216 202	< 5 0.2	1.39	32	< 10	290	< 0.5	< 2	0.28	< 0.5	5	24	20	1.93	< 10	< 1	0.05	10	0.40	
99N 7	216 202	10 < 0.2	1.52	22	< 10	280	< 0.5	< 2	0.25	< 0.5	6	26	23	1.88	< 10	< 1	0.04	10	0.43	
99N 8	216 202	< 5 < 0.2	1.85	26	< 10	240	< 0.5	< 2	0.18	< 0.5	12	48	32	2.95	< 10	< 1	0.06	10	0.66	
99N 9	216 202	10 < 0.2	1.70	52	< 10	580	< 0.5	< 2	0.33	< 0.5	7	32	30	2.55	< 10	< 1	0.07	10	0.36	
99N 10	216 202	15 < 0.2	1.35	98	< 10	200	< 0.5	< 2	0.09	< 0.5	8	22	37	2.92	< 10	< 1	0.09	30	0.34	
99N 11	216 202	10 0.4	1.25	110	< 10	130	< 0.5	< 2	0.10	< 0.5	8	26	34	2.75	< 10	< 1	0.09	20	0.39	
99N 12	216 202	10 < 0.2	1.36	86	< 10	190	< 0.5	< 2	0.08	< 0.5	9	29	35	2.49	< 10	< 1	0.07	20	0.41	
99N 13	216 202	< 5 < 0.2	1.21	30	< 10	130	< 0.5	< 2	0.15	< 0.5	5	21	14	1.96	< 10	< 1	0.06	20	0.32	
99N 14	216 202	< 5 < 0.2	1.53	16	< 10	140	< 0.5	< 2	0.17	< 0.5	6	26	16	2.20	< 10	< 1	0.06	30	0.39	
99N 18	216 202	< 5 < 0.2	1.49	42	< 10	210	< 0.5	< 2	0.09	< 0.5	10	18	24	3.04	< 10	< 1	0.10	40	0.23	
99N 19	216 202	20 < 0.2	1.42	12	< 10	260	< 0.5	< 2	0.27	< 0.5	6	26	17	2.08	< 10	< 1	0.06	30	0.41	
99N 20	216 202	10 < 0.2	1.68	22	< 10	180	< 0.5	< 2	0.19	< 0.5	7	25	17	2.01	< 10	< 1	0.06	10	0.34	
99N 22	216 202	5 < 0.2	1.29	8	< 10	390	< 0.5	< 2	0.38	< 0.5	11	21	27	2.64	< 10	< 1	0.09	40	0.37	
99N 23	216 202	< 5 < 0.2	1.55	14	< 10	240	< 0.5	< 2	0.22	< 0.5	7	19	18	2.40	< 10	< 1	0.08	40	0.36	
99N 26	216 202	< 5 < 0.2	1.87	16	< 10	360	< 0.5	< 2	0.19	< 0.5	8	33	21	2.48	< 10	< 1	0.05	20	0.48	
99N 27	216 202	25 < 0.2	1.48	60	< 10	300	< 0.5	< 2	0.21	< 0.5	8	26	31	2.63	< 10	< 1	0.07	20	0.38	
99N 28	216 202	< 5 < 0.2	1.39	28	< 10	200	< 0.5	< 2	0.09	< 0.5	10	20	33	2.40	< 10	< 1	0.06	30	0.36	
99N 29	216 202	< 5 < 0.2	2.86	20	< 10	310	< 0.5	< 2	0.15	< 0.5	17	35	42	4.45	< 10	< 1	0.07	30	0.93	
99N 31	216 202	< 5 < 0.2	1.36	10	< 10	210	< 0.5	< 2	0.17	< 0.5	6	19	13	1.89	< 10	< 1	0.09	30	0.29	
99N 32	216 202	< 5 < 0.2	1.58	14	< 10	290	< 0.5	< 2	0.22	< 0.5	9	29	20	2.37	< 10	< 1	0.04	10	0.47	
99R 145	216 202	< 5 < 0.2	2.34	14	< 10	220	< 0.5	< 2	0.07	< 0.5	11	30	31	3.23	< 10	< 1	0.04	30	0.54	
99R 146	216 202	< 5 0.2	1.69	30	< 10	130	< 0.5	< 2	0.12	< 0.5	10	21	24	2.71	< 10	< 1	0.04	20	0.42	
99R 147	216 202	< 5 < 0.2	1.83	18	< 10	130	< 0.5	< 2	0.04	< 0.5	8	23	25	2.81	< 10	< 1	0.05	30	0.46	
99R 148	216 202	10 < 0.2	2.17	48	< 10	220	< 0.5	< 2	0.06	< 0.5	12	29	37	2.99	< 10	< 1	0.05	30	0.47	
99R 149	216 202	< 5 < 0.2	2.03	68	< 10	130	< 0.5	< 2	0.05	< 0.5	11	24	43	3.40	< 10	< 1	0.10	30	0.53	
99R 180	216 202	< 5 < 0.2	1.21	130	< 10	100	< 0.5	< 2	0.15	< 0.5	11	15	38	3.30	< 10	< 1	0.06	20	0.30	
99T 1	216 202	< 5 < 0.2	1.00	24	40	150	< 0.5	< 2	0.19	< 0.5	7	16	20	2.04	< 10	< 1	0.06	20	0.27	
99T 2	216 202	< 5 < 0.2	1.67	10	< 10	150	< 0.5	< 2	0.12	< 0.5	10	23	31	3.04	< 10	< 1	0.05	40	0.53	
99T 3	216 202	< 5 < 0.2	1.44	22	< 10	390	< 0.5	< 2	0.25	< 0.5	8	24	28	2.51	< 10	< 1	0.04	30	0.46	

TILLS

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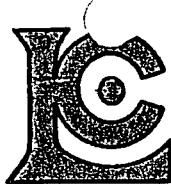
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CERTIFICATE OF ANALYSIS A9925637

SAMPLE	PREP CODE	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
MINTO FIELDS	216 202	285	< 1 < 0.01	23	130	16 < 0.01	< 2	3	18	0.03	< 10	< 10	26	< 10	54		
	216 202	215	< 1 < 0.01	15	490	10 < 0.01	< 2	2	17	0.01	< 10	< 10	21	< 10	52		
	216 202	290	< 1 < 0.01	17	140	12 < 0.01	< 2	1	4	0.01	< 10	< 10	16	< 10	46		
	216 202	415	< 1 < 0.01	22	240	16 < 0.01	< 2	1	7	0.01	< 10	< 10	19	< 10	56		
	216 202	315	< 1 < 0.01	20	540	10 < 0.01	< 2	2	12	0.04	< 10	< 10	30	< 10	50		
MINITO FIELDS	216 202	155	< 1 < 0.01	13	430	12 < 0.01	< 2	1	12	0.03	< 10	< 10	33	< 10	44		
	216 202	575	< 1 < 0.01	43	370	20 < 0.01	< 2	5	25	0.03	< 10	< 10	52	< 10	102		
	216 202	280	< 1 < 0.01	24	350	10 < 0.01	< 2	2	15	0.04	< 10	< 10	29	< 10	54		
	216 202	180	< 1 < 0.01	22	230	10 < 0.01	2	3	15	0.04	< 10	< 10	30	< 10	52		
	216 202	360	< 1 < 0.01	19	470	10 < 0.01	6	3	12	0.03	< 10	< 10	20	< 10	52		
PALEOCORE	216 202	260	< 1 < 0.01	15	280	12 < 0.01	< 2	3	16	0.04	< 10	< 10	32	< 10	44		
	216 202	190	< 1 < 0.01	15	480	6 < 0.01	< 2	3	20	0.04	< 10	< 10	29	< 10	46		
	216 202	200	< 1 < 0.01	16	380	10 < 0.01	2	4	19	0.05	< 10	< 10	36	< 10	38		
	216 202	635	< 1 < 0.01	35	230	10 < 0.01	6	7	20	0.05	< 10	< 10	47	< 10	60		
	216 202	470	1 < 0.01	27	210	12 < 0.01	8	5	19	0.02	< 10	< 10	39	< 10	52		
PALEOCORE	216 202	280	< 1 < 0.01	29	530	10 0.01	18	3	14	0.01	< 10	< 10	30	< 10	72		
	216 202	290	< 1 < 0.01	26	490	12 0.01	16	2	14	0.03	< 10	< 10	34	< 10	56		
	216 202	235	< 1 < 0.01	29	170	12 < 0.01	14	2	12	0.02	< 10	< 10	27	< 10	58		
	216 202	170	< 1 < 0.01	14	380	6 < 0.01	10	2	15	0.03	< 10	< 10	29	< 10	38		
	216 202	160	< 1 < 0.01	15	250	10 < 0.01	< 2	3	17	0.05	< 10	< 10	36	< 10	40		
FIELDS	216 202	345	< 1 < 0.01	21	160	10 < 0.01	6	4	15	0.01	< 10	< 10	22	< 10	62		
	216 202	170	< 1 < 0.01	15	520	10 < 0.01	< 2	3	24	0.05	< 10	< 10	35	< 10	48		
	216 202	185	1 0.01	16	380	8 < 0.01	< 2	2	19	0.05	< 10	< 10	40	< 10	46		
	216 202	410	< 1 < 0.01	24	330	8 < 0.01	< 2	3	23	0.02	< 10	< 10	27	< 10	46		
	216 202	150	< 1 < 0.01	19	200	14 < 0.01	< 2	2	16	0.01	< 10	< 10	25	< 10	48		
FIELD	216 202	245	< 1 < 0.01	19	180	10 < 0.01	< 2	4	20	0.06	< 10	< 10	49	< 10	50		
	216 202	240	< 1 < 0.01	21	350	12 < 0.01	4	5	28	0.05	< 10	< 10	41	< 10	50		
	216 202	260	< 1 < 0.01	23	180	10 < 0.01	< 2	2	14	0.04	< 10	< 10	30	< 10	52		
	216 202	355	< 1 < 0.01	32	170	16 < 0.01	< 2	4	18	0.04	< 10	< 10	48	< 10	80		
	216 202	235	< 1 < 0.01	10	230	12 < 0.01	< 2	2	17	0.03	< 10	< 10	26	< 10	32		
FIELD	216 202	250	< 1 0.01	20	380	8 < 0.01	< 2	4	18	0.05	< 10	< 10	42	< 10	44		
	216 202	270	< 1 < 0.01	30	130	14 < 0.01	< 2	3	11	0.02	< 10	< 10	34	< 10	64		
	216 202	230	< 1 < 0.01	27	260	16 < 0.01	< 2	1	11	0.02	< 10	< 10	20	< 10	58		
	216 202	225	< 1 < 0.01	23	140	12 < 0.01	< 2	2	7	0.03	< 10	< 10	26	< 10	58		
	216 202	240	< 1 < 0.01	34	150	16 < 0.01	< 2	3	9	0.04	< 10	< 10	35	< 10	62		
MINTU	216 202	260	< 1 < 0.01	32	170	16 < 0.01	< 2	1	9	0.02	< 10	< 10	22	< 10	68		
	216 202	330	< 1 < 0.01	24	300	22 < 0.01	< 2	1	12	0.02	< 10	< 10	21	< 10	58		
	216 202	240	< 1 < 0.01	18	280	10 < 0.01	< 2	1	17	0.03	< 10	< 10	20	< 10	48		
	216 202	325	< 1 < 0.01	26	450	14 < 0.01	< 2	3	14	0.02	< 10	< 10	25	< 10	72		
	216 202	250	< 1 < 0.01	25	450	10 < 0.01	< 2	3	22	0.03	< 10	< 10	32	< 10	64		

TILLS

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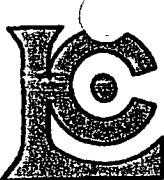
CERTIFICATE OF ANALYSIS A9925637

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
99T 4	216 202	< 5 < 0.2	1.41	12	< 10	180	< 0.5	< 2	0.10	< 0.5	6	21	16	2.29	< 10	< 1	0.04	30	0.41	
99T 5	216 202	< 5 < 0.2	1.30	22	< 10	160	< 0.5	< 2	0.76	< 0.5	9	16	24	2.36	< 10	< 1	0.14	30	0.41	
99T 6	216 202	< 5 < 0.2	0.91	12	< 10	210	< 0.5	< 2	0.15	< 0.5	5	15	18	1.58	< 10	< 1	0.05	10	0.28	
99T 7	216 202	10 < 0.2	0.78	14	< 10	120	< 0.5	< 2	0.13	< 0.5	8	11	19	2.54	< 10	< 1	0.05	40	0.24	
99T 8	216 202	< 5 < 0.2	0.65	16	< 10	110	< 0.5	< 2	0.15	< 0.5	8	9	20	2.46	< 10	< 1	0.05	40	0.18	
99T 9	216 202	< 5 < 0.2	1.09	26	< 10	130	< 0.5	< 2	0.04	< 0.5	8	16	24	2.46	< 10	< 1	0.07	40	0.25	
99T 10	216 202	< 5 < 0.2	1.27	20	< 10	150	< 0.5	< 2	0.05	< 0.5	8	16	30	2.68	< 10	< 1	0.10	40	0.26	
99T 11	216 202	< 5 < 0.2	1.50	24	< 10	370	< 0.5	< 2	0.14	< 0.5	10	22	32	2.89	< 10	< 1	0.10	30	0.36	
99T 12	216 202	< 5 < 0.2	1.34	22	< 10	280	< 0.5	< 2	0.12	< 0.5	10	21	32	2.55	< 10	< 1	0.06	30	0.36	
99T 13	216 202	< 5 < 0.2	1.34	20	< 10	240	< 0.5	< 2	0.10	< 0.5	10	20	25	2.63	< 10	< 1	0.05	30	0.33	
99T 14	216 202	< 5 < 0.2	1.24	22	< 10	390	< 0.5	< 2	0.16	< 0.5	9	19	30	2.53	< 10	< 1	0.06	30	0.37	
99T 15	216 202	< 5 < 0.2	1.06	14	< 10	280	< 0.5	< 2	0.06	< 0.5	14	14	31	3.14	< 10	< 1	0.09	50	0.20	
99T 16	216 202	< 5 < 0.2	1.30	10	< 10	190	< 0.5	< 2	0.20	< 0.5	5	20	13	1.90	< 10	< 1	0.04	10	0.31	
99T 17	216 202	< 5 < 0.2	1.38	16	< 10	350	< 0.5	< 2	0.34	< 0.5	8	28	31	2.58	< 10	< 1	0.07	10	0.41	
99T 18	216 202	< 5 < 0.2	1.00	2	< 10	360	1.5	< 2	0.22	< 0.5	1	3	8	1.14	< 10	< 1	0.17	60	0.07	
99T 19	216 202	< 5 < 0.2	0.90	26	< 10	70	< 0.5	< 2	0.05	< 0.5	9	12	26	1.76	< 10	< 1	0.05	10	0.21	
99T 20	216 202	< 5 < 0.2	0.89	18	< 10	180	< 0.5	< 2	0.13	< 0.5	21	17	37	3.77	< 10	< 1	0.06	40	0.23	
99T 21	216 202	< 5 < 0.2	1.35	20	< 10	200	< 0.5	< 2	0.07	< 0.5	8	24	35	2.55	< 10	< 1	0.05	30	0.35	
99T 22	216 202	10 < 0.2	0.83	16	< 10	180	< 0.5	< 2	0.20	< 0.5	9	17	14	2.55	< 10	< 1	0.06	30	0.25	
99T 23	216 202	< 5 < 0.2	0.61	22	< 10	80	< 0.5	< 2	0.13	< 0.5	8	10	24	1.60	< 10	< 1	0.04	10	0.20	
99T 24	216 202	< 5 < 0.2	1.55	22	< 10	430	< 0.5	< 2	0.20	< 0.5	7	25	23	2.50	< 10	< 1	0.04	30	0.43	
99T 25	216 202	< 5 < 0.2	1.23	20	< 10	230	< 0.5	< 2	0.26	< 0.5	8	19	36	2.58	< 10	< 1	0.08	30	0.35	
99T 26	216 202	10 < 0.2	1.12	20	< 10	180	< 0.5	< 2	0.17	< 0.5	10	18	26	2.74	< 10	< 1	0.06	20	0.34	
99T 27	216 202	< 5 < 0.2	1.36	20	< 10	210	< 0.5	< 2	0.11	< 0.5	10	22	43	2.90	< 10	< 1	0.07	40	0.44	
99T 28	216 202	10 < 0.2	1.55	24	< 10	380	< 0.5	< 2	0.25	< 0.5	9	26	52	3.39	< 10	< 1	0.10	30	0.46	
99U 6	216 202	< 5 < 0.2	1.45	6	10	170	< 0.5	< 2	0.29	< 0.5	10	23	20	2.54	< 10	< 1	0.09	30	0.53	
99U 11	216 202	10 < 0.2	1.35	8	< 10	370	< 0.5	< 2	0.37	< 0.5	6	27	21	2.17	< 10	< 1	0.05	20	0.36	
99U 12	216 202	10 < 0.2	1.67	8	< 10	330	< 0.5	< 2	0.30	< 0.5	8	28	17	2.49	< 10	< 1	0.04	20	0.42	
99U 13	216 202	< 5 < 0.2	2.06	20	< 10	120	< 0.5	< 2	0.16	< 0.5	17	29	18	3.43	< 10	< 1	0.09	10	0.52	
99U 14	216 202	< 5 < 0.2	1.82	10	< 10	150	< 0.5	< 2	0.24	< 0.5	11	30	21	2.74	< 10	< 1	0.09	30	0.58	
99U 16	216 202	< 5 < 0.2	1.45	12	< 10	270	< 0.5	< 2	0.29	< 0.5	7	26	17	1.99	< 10	< 1	0.04	20	0.40	
99U 17	216 202	< 5 < 0.2	1.51	10	< 10	300	< 0.5	< 2	0.49	< 0.5	8	27	24	2.48	< 10	< 1	0.06	30	0.51	
99U 18	216 202	< 5 < 0.2	1.97	12	< 10	310	< 0.5	< 2	0.19	< 0.5	9	29	26	2.66	< 10	< 1	0.05	20	0.41	
99W 27	216 202	15 < 0.2	1.53	38	< 10	300	< 0.5	< 2	0.26	< 0.5	9	25	18	2.36	< 10	< 1	0.06	20	0.37	
99W 37	216 202	< 5 < 0.2	1.34	18	< 10	300	< 0.5	< 2	0.40	< 0.5	7	28	18	2.13	< 10	< 1	0.06	10	0.43	
99W 38	216 202	15 < 0.2	1.59	22	< 10	310	< 0.5	< 2	0.39	< 0.5	7	30	16	2.32	< 10	< 1	0.06	20	0.46	
99W 40	216 202	< 5 < 0.2	1.56	18	< 10	400	< 0.5	< 2	0.36	< 0.5	8	29	23	2.45	< 10	< 1	0.07	20	0.50	
99W 41	216 202	10 < 0.2	0.96	44	< 10	180	< 0.5	< 2	0.06	< 0.5	7	13	25	2.18	< 10	< 1	0.07	30	0.25	
99W 42	216 202	25 < 0.2	1.49	28	< 10	240	< 0.5	< 2	0.20	< 0.5	7	26	20	2.34	< 10	< 1	0.06	20	0.40	
99W 43	216 202	5 < 0.2	1.59	30	< 10	330	< 0.5	< 2	0.19	< 0.5	9	26	26	2.37	< 10	< 1	0.06	20	0.42	

TILL'S

CERTIFICATION:

Stacy Jef



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221 FAX: 604-984-0218

TO: RICHARDS, GORDON

6170 TISDALE ST.
 VANCOUVER, BC
 V5Z 3N4

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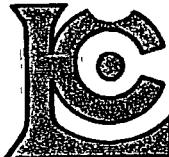
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CERTIFICATE OF ANALYSIS A9925637

SAMPLE	PREP CODE		Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
99T 4	216	202	180	< 1	< 0.01	17	210	8 < 0.01	< 2	1	10	0.03	< 10	< 10	27	< 10	48	
99T 5	216	202	375	1 < 0.01	22	520	10 < 0.01	< 2	2	34	0.02	< 10	< 10	18	< 10	60		
99T 6	216	202	160	< 1 < 0.01	16	350	6 < 0.01	< 2	2	12	0.03	< 10	< 10	19	< 10	34		
99T 7	216	202	210	< 1 < 0.01	21	380	10 < 0.01	< 2	1	18	< 0.01	< 10	< 10	13	< 10	56		
99T 8	216	202	180	< 1 < 0.01	22	530	10 < 0.01	< 2	1	22	< 0.01	< 10	< 10	10	< 10	46		
99T 9	216	202	265	< 1 < 0.01	22	220	12 < 0.01	< 2	1	10	0.02	< 10	< 10	16	< 10	54		
99T 10	216	202	285	< 1 < 0.01	24	300	10 < 0.01	< 2	2	13	0.02	< 10	< 10	17	< 10	58		
99T 11	216	202	665	< 1 < 0.01	30	290	12 < 0.01	< 2	3	20	0.03	< 10	< 10	31	< 10	70		
99T 12	216	202	390	< 1 < 0.01	26	290	18 < 0.01	< 2	3	16	0.04	< 10	< 10	30	< 10	64		
99T 13	216	202	340	< 1 < 0.01	24	250	12 < 0.01	< 2	3	15	0.03	< 10	< 10	30	< 10	62		
99T 14	216	202	415	< 1 < 0.01	27	310	10 < 0.01	< 2	3	20	0.04	< 10	< 10	30	< 10	62		
99T 15	216	202	440	< 1 < 0.01	33	320	16 < 0.01	< 2	2	13	< 0.01	< 10	< 10	16	< 10	72		
99T 16	216	202	100	< 1 < 0.01	14	420	10 < 0.01	< 2	1	18	0.02	< 10	< 10	33	< 10	36		
99T 17	216	202	345	< 1 < 0.01	29	730	12 < 0.01	< 2	4	35	0.04	< 10	< 10	49	< 10	94		
99T 18	216	202	105	< 1 < 0.01	6	90	36 < 0.01	< 2	1	48	< 0.01	< 10	< 10	3	< 10	38		
99T 19	216	202	275	< 1 < 0.01	18	160	12 < 0.01	< 2	1	5	0.03	< 10	< 10	14	< 10	38		
99T 20	216	202	1285	< 1 < 0.01	33	1050	22 < 0.01	< 2	1	16	0.01	< 10	< 10	19	< 10	86		
99T 21	216	202	290	1 < 0.01	26	110	10 < 0.01	< 2	4	13	0.03	< 10	< 10	36	< 10	66		
99T 22	216	202	275	< 1 < 0.01	21	370	2 < 0.01	< 2	2	26	0.01	< 10	< 10	21	< 10	70		
99T 23	216	202	320	< 1 < 0.01	18	410	12 < 0.01	< 2	1	10	0.01	< 10	< 10	10	< 10	34		
99T 24	216	202	240	< 1 < 0.01	21	260	10 < 0.01	< 2	3	18	0.04	< 10	< 10	36	< 10	52		
99T 25	216	202	240	1 < 0.01	28	530	10 < 0.01	< 2	4	23	0.03	< 10	< 10	27	< 10	68		
99T 26	216	202	210	< 1 < 0.01	25	390	14 < 0.01	< 2	1	19	0.02	< 10	< 10	22	< 10	62		
99T 27	216	202	370	< 1 < 0.01	32	260	18 < 0.01	< 2	4	14	0.03	< 10	< 10	29	< 10	70		
99T 28	216	202	375	< 1 < 0.01	36	450	14 < 0.01	< 2	4	19	0.03	< 10	< 10	32	< 10	82		
99U 6	216	202	415	< 1 < 0.01	21	720	10 < 0.01	< 2	3	24	0.05	< 10	< 10	24	< 10	72		
99U 11	216	202	210	1 < 0.01	19	690	6 < 0.01	< 2	4	29	0.06	< 10	< 10	42	< 10	56		
99U 12	216	202	220	1 < 0.01	18	550	6 < 0.01	< 2	4	25	0.06	< 10	< 10	43	< 10	52		
99U 13	216	202	690	< 1 < 0.01	22	450	10 < 0.01	< 2	3	15	0.06	< 10	< 10	42	< 10	70		
99U 14	216	202	365	< 1 < 0.01	22	640	14 < 0.01	< 2	3	19	0.06	< 10	< 10	35	< 10	62		
99U 16	216	202	180	< 1 < 0.01	16	620	8 < 0.01	< 2	3	24	0.05	< 10	< 10	35	< 10	52		
99U 17	216	202	330	< 1 < 0.01	18	770	12 < 0.01	< 2	4	28	0.03	< 10	< 10	31	< 10	74		
99U 18	216	202	385	1 < 0.01	20	390	10 < 0.01	< 2	5	21	0.06	< 10	< 10	56	< 10	60		
99W 27	216	202	300	< 1 < 0.01	15	570	10 < 0.01	< 2	3	24	0.04	< 10	< 10	32	< 10	56		
99W 37	216	202	195	< 1 < 0.01	18	650	6 < 0.01	< 2	3	33	0.07	< 10	< 10	42	< 10	52		
99W 38	216	202	290	< 1 < 0.01	16	540	8 < 0.01	< 2	3	35	0.07	< 10	< 10	47	< 10	56		
99W 40	216	202	275	< 1 < 0.01	20	720	10 < 0.01	< 2	3	31	0.06	< 10	< 10	46	< 10	78		
99W 41	216	202	295	< 1 < 0.01	21	190	12 < 0.01	< 2	3	11	0.03	< 10	< 10	18	< 10	60		
99W 42	216	202	260	< 1 < 0.01	17	490	10 < 0.01	< 2	3	21	0.06	< 10	< 10	43	< 10	50		
99W 43	216	202	300	< 1 < 0.01	18	310	10 < 0.01	< 2	4	21	0.06	< 10	< 10	40	< 10	54		

TILL'S

CERTIFICATION:



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave , North Vancouver
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 PHONE: 604-984-0221 FAX: 604-984-0218

To. RICHARDS, GORDON

6170 TISDALL ST.,
 VANCOUVER, BC
 V5Z 3N4

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 Certificate Date: 23-AUG-1999
 Invoice No. : 19925637
 P.O. Number :
 Account : NDJ

Project: TIN
 Comments: ATTN: GORDON RICHARDS

CERTIFICATE OF ANALYSIS A9925637

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
99W 44	216 202	20 < 0.2	1.21	24	< 10	320 < 0.5	< 2	0.49 < 0.5	8	29	26	2.43 < 10	< 1	0.07	10	0.42				
99W 45	216 202	10 < 0.2	1.64	18	< 10	280 < 0.5	< 2	0.34 < 0.5	6	29	17	2.12 < 10	< 1	0.06	10	0.41				
99W 46	216 202	10 < 0.2	1.75	20	< 10	280 < 0.5	< 2	0.24 < 0.5	6	26	17	2.21 < 10	1	0.06	20	0.41				
99W 47	216 202	10 < 0.2	1.66	26	< 10	270 < 0.5	< 2	0.10 < 0.5	8	31	24	2.56 < 10	< 1	0.04	10	0.42				
99W 48	216 202	< 5 < 0.2	0.97	42	< 10	240 < 0.5	< 2	0.21 < 0.5	6	18	24	2.18 < 10	< 1	0.06	20	0.32				
99W 51	216 202	10 < 0.2	1.20	24	< 10	270 < 0.5	< 2	0.23 < 0.5	5	21	19	1.93 < 10	< 1	0.05	10	0.39				
99W 52	216 202	90 0.6	1.56	92	< 10	450 < 0.5	< 2	0.24 < 0.5	8	26	44	2.71 < 10	< 1	0.06	10	0.39				

TIN'S

CERTIFICATION.



Chemex Labs Ltd.

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To RICHARDS, GORDON

6170 TISDALL ST.,
 VANCOUVER, BC
 V5Z 3N4

Project: TIN
 Comments: ATTN: GORDON RICHARDS

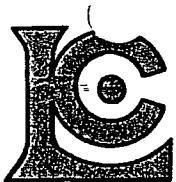
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CERTIFICATE OF ANALYSIS A9925637

SAMPLE	PREP CODE	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
99W 44	216 202	310	1	0.01	22	880	8 < 0.01	< 2	4	41	0.06	< 10	< 10	48	< 10	56	
99W 45	216 202	165	< 1	0.01	14	570	8 < 0.01	< 2	3	32	0.06	< 10	< 10	42	< 10	46	
99W 46	216 202	150	< 1 < 0.01	15	510	10 < 0.01	< 2	3	23	0.04	< 10	< 10	36	< 10	58		
99W 47	216 202	250	< 1 < 0.01	19	140	12 < 0.01	< 2	4	14	0.05	< 10	< 10	41	< 10	56		
99W 48	216 202	195	< 1 < 0.01	19	560	10 < 0.01	2	2	19	0.03	< 10	< 10	22	< 10	62		
99W 51	216 202	170	< 1 < 0.01	15	480	8 < 0.01	< 2	3	18	0.03	< 10	< 10	28	< 10	46		
99W 52	216 202	245	< 1 < 0.01	24	620	14 < 0.01	10	4	28	0.02	< 10	< 10	31	< 10	70		

TILLS

CERTIFICATION:



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RICHARDS, GORDON

6170 TISDALL ST,
VANCOUVER, BC
V5Z 3N4

0505
A9925635

Comments: ATTN: GORDON RICHARDS

CERTIFICATE

A9925635

(NDJ) - RICHARDS, GORDON

Project: TIN
P.O. #:

Samples submitted to our lab in Vancouver, BC.
This report was printed on 19-AUG-1999.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	90	Geochem ring to approx 150 mesh
226	90	0-3 Kg crush and split
3202	90	Rock - save entire reject

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	90	Au ppb: Fuse 30 g sample	FA-AAS	5	10000



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To: RICHARDS, GORDON

6170 TISDALL ST,
 VANCOUVER, BC
 V5Z 3N4

Project: TIN
 Comments: ATTN. GORDON RICHARDS

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CERTIFICATE OF ANALYSIS A9925635

SAMPLE	PREP CODE	Au ppb FA+AA											
99B 7	205 226	< 5											
99B 26	205 226	< 5											
99B 27	205 226	< 5											
99B 32	205 226	< 5											
99B 37	205 226	< 5											
99B 39	205 226	< 5											
99B 45	205 226	< 5											
99B 48	205 226	< 5											
99B 49	205 226	< 5											
99C 4	205 226	< 5											
99C 5	205 226	< 5											
99C 6	205 226	< 5											
99C 7	205 226	< 5											
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99D 124	205 226	< 5											
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99D 126	205 226	< 5											
99D 128	205 226	< 5											
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99D 136	205 226	< 5											
99F 1	205 226	< 5											
99F 3	205 226	< 5											
99F 6	205 226	< 5											
99F 7	205 226	< 5											
99F 10	205 226	< 5											
99G 7	205 226	< 5											
99G 8	205 226	< 5											
99G 9	205 226	< 5											
99G 10	205 226	< 5											
99G 11	205 226	< 5											
99G 12	205 226	< 5											
99G 13	205 226	< 5											
99G 14	205 226	< 5											
99G 15	205 226	< 5											
99G 16	205 226	< 5											
99G 17	205 226	< 5											
99G 19	205 226	< 5											
99G 20	205 226	< 5											
99G 21	205 226	< 5											

RX

CERTIFICATION:

Mark Verby



Chemex Labs Ltd.

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To RICHARDS, GORDON

6170 TISDALL ST,
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CERTIFICATE OF ANALYSIS A9925635

SAMPLE	PREP CODE	Au ppb FA+AA											
99G 23	205 226	< 5											
99N 2	205 226	< 5											
99N 4	205 226	20											
99N 15	205 226	< 5											
99R 119	205 226	< 5											
99R 128	205 226	< 5											
99R 129	205 226	< 5											
99R 137	205 226	< 5											
99R 141	205 226	< 5											
99R 144	205 226	< 5											
99R 150	205 226	< 5											
99R 151	205 226	< 5											
99R 152	205 226	< 5											
99R 153	205 226	< 5											
99R 155	205 226	< 5											
99R 158	205 226	< 5											
99R 160	205 226	< 5											
99R 182	205 226	< 5											
99R 184	205 226	< 5											
99R 186	205 226	< 5											
99R 187	205 226	< 5											
99R 194	205 226	< 5											
99R 197	205 226	< 5											
99R 200	205 226	< 5											
99S 19	205 226	< 5											
99S 24	205 226	< 5											
99U 9	205 226	< 5											
99U 15	205 226	< 5											
99Y 82	205 226	< 5											
99Y 87	205 226	< 5											
99Y 95	205 226	< 5											
99Y 96	205 226	425											
99W 4	205 226	< 5											
99W 5	205 226	< 5											
99W 6	205 226	< 5											
99W 7	205 226	< 5											
99W 11	205 226	40											
99W 19	205 226	< 5											
99W 22	205 226	< 5											
99W 24	205 226	10											

R+

CERTIFICATION:



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: RICHARDS, GORDON

6170 TISDALL ST.,
VANCOUVER, BC
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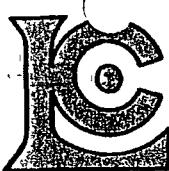
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CERTIFICATE OF ANALYSIS

A9925635

rx

CERTIFICATION: Mark Weller



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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P.O. RICHARDS, GORDON

6170 TISDALL ST.,
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 V5Z 3N4

A9925647

CERTIFICATE

A9925647

(NDJ) - RICHARDS, GORDON

Project: TIN
 P.O. #:

Samples submitted to our lab in Vancouver, BC.
 This report was printed on 23-AUG-1999.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	105	Dry, sieve to -80 mesh
202	105	save reject
229	105	ICP - AQ Digestion charge

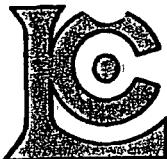
* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	105	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
2118	105	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
2119	105	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	105	As ppm: 32 element, soil & rock	ICP-AES	2	10000
557	105	B ppm: 32 element, rock & soil	ICP-AES	10	10000
2121	105	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	105	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123	105	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	105	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125	105	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	500
2126	105	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127	105	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128	105	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	105	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130	105	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
2131	105	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2132	105	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151	105	La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134	105	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135	105	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136	105	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137	105	Na %: 32 element, soil & rock	ICP-AES	0.01	10.00
2138	105	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139	105	P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140	105	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
551	105	S %: 32 element, rock & soil	ICP-AES	0.01	5.00
2141	105	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142	105	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143	105	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144	105	Ti %: 32 element, soil & rock	ICP-AES	0.01	10.00
2145	105	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146	105	U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147	105	V ppm: 32 element, soil & rock	ICP-AES	1	10000
2148	105	W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149	105	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

Comments. ATTN: GORDON RICHARDS



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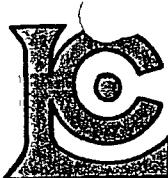
CERTIFICATE OF ANALYSIS A9925647

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
99B 1	201 202		15 < 0.2	0.52	10	< 10	140	< 0.5	< 2	0.35	< 0.5	6	8	11	1.42	< 10	< 1	0.03	10	0.19	
99B 24	201 202		20 < 0.2	0.63	6	< 10	280	< 0.5	< 2	0.23	< 0.5	4	8	4	1.11	< 10	< 1	0.03	10	0.14	
99B 25	201 202		< 5 < 0.2	0.75	10	< 10	230	< 0.5	< 2	0.30	< 0.5	8	11	8	1.89	< 10	< 1	0.03	10	0.20	
99B 30	201 202		< 5 < 0.2	0.51	12	< 10	90	< 0.5	< 2	0.36	< 0.5	7	10	15	1.63	< 10	< 1	0.03	20	0.23	
99B 47	201 202		20 < 0.2	0.73	8	< 10	190	< 0.5	< 2	0.29	< 0.5	9	13	13	1.82	< 10	< 1	0.03	10	0.27	
99B 50	201 202		< 5 < 0.2	0.66	4	< 10	230	< 0.5	< 2	0.38	< 0.5	3	6	5	1.29	< 10	1	0.07	30	0.13	
99B 51	201 202		< 5 < 0.2	0.37	18	< 10	70	< 0.5	< 2	0.21	< 0.5	7	7	13	1.49	< 10	< 1	0.02	10	0.16	
99C 1	201 202		< 5 < 0.2	0.83	12	< 10	90	< 0.5	< 2	0.18	< 0.5	20	12	22	2.26	< 10	1	0.02	10	0.38	
99C 2	201 202		< 5 < 0.2	1.12	28	< 10	130	< 0.5	< 2	0.24	< 0.5	17	16	23	2.78	< 10	< 1	0.03	20	0.45	
99C 3	201 202		30 < 0.2	1.15	14	< 10	100	< 0.5	< 2	0.26	< 0.5	20	17	21	2.40	< 10	< 1	0.03	30	0.42	
99C 8	201 202		< 5 < 0.2	1.47	28	< 10	100	< 0.5	< 2	0.23	< 0.5	19	20	28	3.59	< 10	< 1	0.04	20	0.57	
99C 10	201 202		< 5 < 0.2	1.48	28	< 10	100	< 0.5	< 2	0.22	< 0.5	23	19	27	3.77	< 10	< 1	0.04	30	0.58	
99C 12	201 202		< 5 < 0.2	0.95	18	< 10	90	< 0.5	< 2	0.18	< 0.5	7	13	14	1.97	< 10	1	0.03	30	0.35	
99C 13	201 202		< 5 < 0.2	1.29	26	< 10	180	< 0.5	< 2	0.28	< 0.5	32	20	30	3.10	< 10	< 1	0.05	10	0.51	
99C 14	201 202		< 5 < 0.2	1.74	74	< 10	60	< 0.5	< 2	0.13	< 0.5	32	20	30	4.62	< 10	< 1	0.03	20	0.70	
99C 15	201 202		< 5 < 0.2	1.39	50	< 10	110	< 0.5	< 2	0.23	< 0.5	34	19	29	3.63	< 10	< 1	0.04	10	0.56	
99D 110	201 202		< 5 < 0.2	1.11	30	< 10	200	< 0.5	< 2	0.38	< 0.5	9	19	18	1.89	< 10	< 1	0.05	10	0.37	
99D 111	201 202		< 5 < 0.2	1.18	20	< 10	240	< 0.5	< 2	0.54	< 0.5	11	18	21	2.68	< 10	1	0.06	30	0.40	
99D 112	201 202		< 5 < 0.2	0.82	30	< 10	150	< 0.5	< 2	0.33	< 0.5	8	14	15	1.85	< 10	< 1	0.04	10	0.29	
99D 115	201 202		75 < 0.2	0.91	18	< 10	210	< 0.5	< 2	0.38	< 0.5	7	13	9	1.91	< 10	1	0.04	10	0.27	
99D 144	201 202		35 < 0.2	0.86	32	< 10	150	< 0.5	< 2	0.46	< 0.5	9	15	19	1.98	< 10	< 1	0.04	10	0.34	
99F 2	201 202		< 5 < 0.2	0.96	10	< 10	70	< 0.5	< 2	0.09	< 0.5	11	13	28	2.37	< 10	< 1	0.02	20	0.43	
99F 4	201 202		< 5 < 0.2	0.94	20	< 10	200	< 0.5	< 2	0.24	< 0.5	10	15	21	2.11	< 10	< 1	0.03	10	0.39	
99F 5	201 202		< 5 < 0.2	1.13	20	< 10	120	< 0.5	< 2	0.27	< 0.5	18	16	23	2.56	< 10	< 1	0.04	30	0.43	
99F 9	201 202		< 5 < 0.2	1.02	18	< 10	110	< 0.5	< 2	0.17	< 0.5	13	15	19	2.27	< 10	< 1	0.03	20	0.40	
99G 1	201 202		< 5 < 0.2	0.92	8	< 10	300	< 0.5	< 2	0.56	< 0.5	8	12	11	1.92	< 10	< 1	0.06	20	0.25	
99G 2	201 202		< 5 < 0.2	0.61	8	< 10	190	< 0.5	< 2	0.30	< 0.5	5	8	5	1.05	< 10	< 1	0.05	10	0.18	
99G 3	201 202		< 5 < 0.2	0.64	< 2	< 10	220	< 0.5	< 2	0.25	< 0.5	5	9	5	1.05	< 10	< 1	0.03	10	0.19	
99G 4	201 202		< 5 < 0.2	0.80	4	< 10	180	< 0.5	< 2	0.44	< 0.5	6	10	9	1.34	< 10	1	0.05	10	0.27	
99G 5	201 202		< 5 < 0.2	1.53	8	< 10	220	< 0.5	< 2	0.57	< 0.5	14	20	33	2.69	< 10	< 1	0.09	30	0.53	
99G 6	201 202		95 < 0.2	0.91	6	< 10	110	< 0.5	< 2	0.27	< 0.5	9	12	14	1.93	< 10	1	0.04	30	0.31	
99G 18	201 202		< 5 < 0.2	0.48	10	< 10	80	< 0.5	< 2	0.20	< 0.5	6	8	14	1.29	< 10	< 1	0.02	10	0.19	
99G 22	201 202		< 5 < 0.2	0.98	20	< 10	110	< 0.5	< 2	0.31	< 0.5	14	14	24	2.78	< 10	1	0.04	20	0.38	
99N 21	201 202		< 5 < 0.2	0.71	4	< 10	180	< 0.5	< 2	0.54	< 0.5	7	15	13	1.71	< 10	< 1	0.04	10	0.33	
99R 127	201 202		< 5 < 0.2	0.67	72	< 10	110	< 0.5	< 2	0.31	< 0.5	10	11	18	1.68	< 10	< 1	0.03	10	0.26	
99R 142	201 202		< 5 < 0.2	0.77	22	< 10	120	< 0.5	< 2	0.29	< 0.5	7	11	12	1.65	< 10	< 1	0.03	10	0.28	
99R 143	201 202		10 < 0.2	0.61	136	< 10	100	< 0.5	< 2	0.31	< 0.5	13	10	24	1.90	< 10	< 1	0.03	10	0.24	
99R 174	201 202		< 5 < 0.2	1.01	32	< 10	180	< 0.5	< 2	0.46	< 0.5	10	15	20	2.24	< 10	< 1	0.04	30	0.34	
99R 181	201 202		< 5 < 0.2	1.20	36	< 10	160	< 0.5	< 2	0.34	< 0.5	13	15	19	2.89	< 10	< 1	0.04	30	0.45	
99S 10	201 202		40 < 0.2	0.66	2	< 10	130	< 0.5	< 2	0.44	< 0.5	4	13	5	1.29	< 10	< 1	0.04	10	0.27	

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Dave Jef



Chemex Labs Ltd.

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o RICHARDS, GORDON

6170 TISDALE ST.,
 VANCOUVER, BC
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 Certificate Date: 23-AUG-1999
 Invoice No. 19925647
 P.O. Number
 Account NDJ

Project TIN
 Comments ATTN: GORDON RICHARDS

CERTIFICATE OF ANALYSIS A9925647

SAMPLE	PREP CODE	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
99B 1	201 202	315	< 1 < 0.01	12	420	8	0.01	< 2	< 1	36	< 0.01	< 10	< 10	10	< 10	46	
99B 24	201 202	195	< 1 < 0.01	7	390	8	0.01	< 2	< 1	34	< 0.01	< 10	< 10	11	< 10	38	
99B 25	201 202	610	< 1 < 0.01	11	410	8	0.01	< 2	1	33	< 0.01	< 10	< 10	16	< 10	54	
99B 30	201 202	250	< 1 < 0.01	15	560	8	< 0.01	< 2	1	23	0.01	< 10	< 10	12	< 10	46	
99B 47	201 202	535	< 1 < 0.01	16	470	6	0.03	< 2	1	31	0.01	< 10	< 10	15	< 10	56	
99B 50	201 202	200	< 1 < 0.01	6	350	14	0.01	2	1	43	< 0.01	< 10	< 10	9	< 10	56	
99B 51	201 202	245	< 1 < 0.01	13	390	8	< 0.01	< 2	< 1	15	< 0.01	< 10	< 10	8	< 10	40	
99C 1	201 202	910	< 1 < 0.01	30	410	12	0.02	< 2	1	18	0.01	< 10	< 10	13	< 10	62	
99C 2	201 202	540	< 1 < 0.01	23	480	16	0.02	< 2	1	24	0.02	< 10	< 10	18	< 10	74	
99C 3	201 202	820	< 1 < 0.01	25	380	16	0.04	< 2	1	26	0.01	< 10	< 10	16	< 10	72	
99C 8	201 202	765	< 1 < 0.01	26	390	20	0.03	2	1	24	0.01	< 10	< 10	17	< 10	90	
99C 10	201 202	930	< 1 < 0.01	30	390	20	0.03	2	1	23	0.01	< 10	< 10	17	< 10	100	
99C 12	201 202	225	< 1 < 0.01	14	350	10	0.02	< 2	1	19	0.01	< 10	< 10	15	< 10	54	
99C 13	201 202	1580	< 1 < 0.01	28	510	14	0.01	2	3	31	0.03	< 10	< 10	26	< 10	76	
99C 14	201 202	1010	< 1 < 0.01	27	360	34	0.02	< 2	1	16	< 0.01	< 10	< 10	15	< 10	112	
99C 15	201 202	1175	< 1 < 0.01	32	410	26	0.02	< 2	1	26	0.01	< 10	< 10	19	< 10	98	
99D 110	201 202	360	< 1 < 0.01	18	590	10	0.02	< 2	2	31	0.03	< 10	< 10	25	< 10	60	
99D 111	201 202	800	< 1 < 0.01	21	650	12	0.05	< 2	2	57	0.03	< 10	< 10	21	< 10	76	
99D 112	201 202	560	< 1 < 0.01	17	580	8	0.01	< 2	1	29	0.03	< 10	< 10	17	< 10	52	
99D 115	201 202	240	< 1 < 0.01	12	530	8	0.04	< 2	1	33	0.01	< 10	< 10	17	< 10	50	
99D 144	201 202	620	< 1 < 0.01	19	620	10	0.01	< 2	1	34	0.01	< 10	< 10	17	< 10	60	
99F 2	201 202	200	< 1 < 0.01	18	390	12	0.01	< 2	< 1	11	< 0.01	< 10	< 10	10	< 10	56	
99F 4	201 202	190	< 1 < 0.01	18	560	10	0.01	< 2	1	23	0.03	< 10	< 10	19	< 10	56	
99F 5	201 202	630	< 1 < 0.01	24	430	16	0.04	< 2	1	29	0.02	< 10	< 10	18	< 10	76	
99F 9	201 202	380	< 1 < 0.01	17	380	12	0.01	< 2	1	18	0.01	< 10	< 10	16	< 10	54	
99G 1	201 202	480	< 1 < 0.01	12	450	12	0.03	< 2	1	80	0.01	< 10	< 10	18	< 10	66	
99G 2	201 202	300	< 1 < 0.01	8	330	6	0.01	< 2	1	40	0.01	< 10	< 10	12	< 10	36	
99G 3	201 202	385	< 1 < 0.01	8	330	2	0.02	< 2	< 1	33	0.01	< 10	< 10	12	< 10	32	
99G 4	201 202	415	< 1 < 0.01	11	400	6	0.04	< 2	1	87	0.01	< 10	< 10	13	< 10	46	
99G 5	201 202	460	< 1 < 0.01	27	580	14	0.05	< 2	2	57	0.01	< 10	< 10	19	< 10	76	
99G 6	201 202	335	< 1 < 0.01	17	550	10	0.01	< 2	1	23	0.01	< 10	< 10	12	< 10	54	
99G 18	201 202	180	< 1 < 0.01	12	450	6	< 0.01	< 2	< 1	16	0.01	< 10	< 10	11	< 10	36	
99G 22	201 202	665	< 1 < 0.01	24	500	16	0.01	2	1	28	< 0.01	< 10	< 10	13	< 10	86	
99N 21	201 202	460	< 1 < 0.01	13	760	6	0.02	2	1	40	0.01	< 10	< 10	22	< 10	50	
99R 127	201 202	400	< 1 < 0.01	18	550	12	0.01	< 2	1	23	0.01	< 10	< 10	13	< 10	48	
99R 142	201 202	335	< 1 < 0.01	14	450	8	0.01	< 2	1	24	0.01	< 10	< 10	14	< 10	48	
99R 143	201 202	560	< 1 < 0.01	23	450	14	0.03	< 2	1	22	0.02	< 10	< 10	12	< 10	50	
99R 174	201 202	510	< 1 < 0.01	20	520	10	0.03	< 2	1	40	0.02	< 10	< 10	18	< 10	56	
99R 181	201 202	715	< 1 < 0.01	22	520	10	0.02	< 2	1	29	0.01	< 10	< 10	17	< 10	72	
99S 10	201 202	185	< 1 < 0.01	8	800	4	0.01	< 2	1	26	0.03	< 10	< 10	18	< 10	38	

SIC TS

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To RICHARDS, GORDON

6170 TISDALE ST.,
 VANCOUVER, BC
 V5Z 3N4

Project: TIN
 Comments: ATTN: GORDON RICHARDS

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CERTIFICATE OF ANALYSIS A9925647

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
99S 11	201 202	< 5 < 0.2	0.91	86	< 10	300	< 0.5	< 2	0.41	< 0.5	11	13	15	2.62	< 10	< 1	0.12	20	0.46	
99S 12	201 202	< 5 < 0.2	1.04	10	< 10	270	< 0.5	< 2	0.40	< 0.5	20	19	13	3.25	< 10	< 1	0.04	10	0.40	
99S 13	201 202	15 < 0.2	1.08	< 2	< 10	280	< 0.5	< 2	0.49	< 0.5	7	20	11	1.85	< 10	< 1	0.03	10	0.39	
99S 14	201 202	< 5 < 0.2	0.97	2	< 10	280	< 0.5	< 2	0.41	< 0.5	18	15	10	2.19	< 10	< 1	0.04	10	0.32	
99S 15	201 202	< 5 < 0.2	0.75	8	< 10	120	< 0.5	< 2	0.24	< 0.5	4	12	5	1.53	< 10	< 1	0.04	10	0.24	
99S 16	201 202	< 5 < 0.2	0.81	6	< 10	170	< 0.5	< 2	0.40	< 0.5	6	14	8	1.52	< 10	< 1	0.03	10	0.27	
99S 17	201 202	< 5 < 0.2	0.92	6	< 10	180	< 0.5	< 2	0.22	< 0.5	5	15	6	1.64	< 10	< 1	0.03	10	0.26	
99S 18	201 202	< 5 < 0.2	0.71	2	< 10	130	< 0.5	< 2	0.31	< 0.5	5	12	4	1.19	< 10	< 1	0.03	10	0.22	
99S 20	201 202	< 5 < 0.2	0.93	6	< 10	190	< 0.5	< 2	0.31	< 0.5	8	17	13	1.84	< 10	< 1	0.07	20	0.35	
99S 21	201 202	< 5 < 0.2	0.92	4	< 10	210	< 0.5	< 2	0.36	< 0.5	8	16	7	1.57	< 10	< 1	0.03	10	0.29	
99S 22	201 202	< 5 < 0.2	0.65	14	< 10	90	< 0.5	< 2	0.50	< 0.5	10	13	16	2.25	< 10	1	0.04	20	0.22	
99S 23	201 202	< 5 < 0.2	0.91	68	< 10	190	< 0.5	< 2	0.51	< 0.5	10	16	10	3.03	< 10	< 1	0.05	20	0.32	
99S 25	201 202	10 < 0.2	0.84	34	< 10	160	< 0.5	< 2	0.52	< 0.5	10	16	16	2.41	< 10	< 1	0.06	20	0.35	
99U 1	201 202	< 5 < 0.2	0.71	28	< 10	100	< 0.5	< 2	1.26	< 0.5	15	16	27	3.32	< 10	< 1	0.06	40	0.36	
99U 3	201 202	< 5 < 0.2	1.06	< 2	< 10	100	< 0.5	< 2	1.16	< 0.5	12	14	26	2.77	< 10	< 1	0.04	40	0.34	
99U 5	201 202	10 < 0.2	0.61	16	< 10	100	< 0.5	< 2	0.30	< 0.5	6	11	11	1.42	< 10	< 1	0.04	20	0.19	
99U 7	201 202	< 5 < 0.2	1.11	< 2	< 10	210	< 0.5	< 2	0.22	< 0.5	5	17	7	1.40	< 10	< 1	0.03	10	0.29	
99U 8	201 202	5 < 0.2	1.13	< 2	< 10	160	< 0.5	< 2	0.21	< 0.5	4	18	6	1.58	< 10	< 1	0.03	10	0.28	
99U 10	201 202	< 5 < 0.2	1.12	6	< 10	150	< 0.5	< 2	0.18	< 0.5	4	18	7	1.54	< 10	< 1	0.03	10	0.25	
99U 19	201 202	< 5 < 0.2	0.62	10	< 10	140	< 0.5	< 2	0.44	< 0.5	6	12	7	1.47	< 10	2	0.03	10	0.27	
99W 1	201 202	< 5 < 0.2	0.73	8	< 10	210	< 0.5	< 2	0.56	< 0.5	9	17	12	2.03	< 10	< 1	0.04	10	0.34	
99W 2	201 202	40 < 0.2	0.65	100	< 10	270	< 0.5	< 2	0.43	< 0.5	11	16	13	3.72	< 10	< 1	0.04	10	0.25	
99W 3	201 202	15 < 0.2	0.77	24	< 10	270	< 0.5	< 2	0.53	< 0.5	8	15	17	1.77	< 10	< 1	0.06	10	0.27	
99W 26	201 202	25 < 0.2	1.11	86	< 10	420	< 0.5	< 2	0.39	< 0.5	11	21	22	2.02	< 10	< 1	0.06	10	0.31	
99Y 25	201 202	< 5 < 0.2	1.68	< 2	< 10	160	< 0.5	< 2	0.86	< 0.5	12	35	18	2.71	< 10	< 1	0.19	10	0.82	
99Y 52	201 202	< 5 < 0.2	1.46	< 2	< 10	200	< 0.5	< 2	0.68	< 0.5	10	21	14	2.48	< 10	< 1	0.15	10	0.70	
99Y 53	201 202	< 5 < 0.2	1.21	< 2	< 10	170	< 0.5	< 2	0.58	< 0.5	8	17	7	2.57	< 10	< 1	0.17	10	0.70	
99Y 54	201 202	< 5 < 0.2	1.44	< 2	< 10	250	< 0.5	< 2	0.75	< 0.5	11	14	10	2.59	< 10	< 1	0.31	< 10	0.76	
99Y 55	201 202	< 5 < 0.2	0.74	< 2	< 10	100	< 0.5	< 2	0.46	< 0.5	5	14	3	2.48	< 10	< 1	0.09	10	0.43	
99Y 56	201 202	5 < 0.2	0.83	2	< 10	140	< 0.5	< 2	0.64	< 0.5	6	10	3	1.70	< 10	< 1	0.14	< 10	0.58	
99Y 57	201 202	5 < 0.2	1.71	< 2	< 10	380	< 0.5	< 2	0.50	< 0.5	12	28	8	2.45	< 10	< 1	0.40	10	1.35	
99Y 58	201 202	< 5 < 0.2	0.76	< 2	< 10	100	< 0.5	< 2	0.41	< 0.5	4	10	3	2.02	< 10	< 1	0.10	10	0.42	
99Y 59	201 202	30 < 0.2	1.03	< 2	< 10	140	< 0.5	< 2	0.36	< 0.5	7	19	4	3.28	< 10	< 1	0.11	10	0.60	
99Y 60	201 202	< 5 < 0.2	1.14	6	< 10	180	< 0.5	< 2	0.61	< 0.5	8	19	8	2.90	< 10	< 1	0.16	10	0.63	
99Y 81	201 202	75 < 0.2	1.20	< 2	< 10	200	< 0.5	< 2	0.55	< 0.5	7	18	9	2.32	< 10	1	0.08	< 10	0.44	
99Y 94	201 202	< 5 < 0.2	1.19	< 2	< 10	150	< 0.5	< 2	0.84	< 0.5	8	21	11	2.35	< 10	< 1	0.12	10	0.50	
99Z 1	201 202	5 < 0.2	1.46	10	< 10	190	< 0.5	< 2	0.42	< 0.5	9	23	12	2.25	< 10	< 1	0.08	10	0.53	
99Z 2	201 202	< 5 < 0.2	1.02	12	< 10	120	< 0.5	< 2	0.27	< 0.5	5	14	15	2.13	< 10	< 1	0.09	10	0.29	
99Z 3	201 202	< 5 < 0.2	1.06	< 2	< 10	120	< 0.5	< 2	0.22	< 0.5	4	16	9	1.75	< 10	< 1	0.05	20	0.24	
99Z 4	201 202	20 < 0.2	1.24	18	< 10	100	< 0.5	< 2	0.29	< 0.5	9	18	11	2.83	< 10	< 1	0.10	20	0.36	

515

CERTIFICATION:



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221 FAX: 604-984-0218

O. RICHARDS, GORDON

6170 TISDALL ST,
 VANCOUVER, BC
 V5Z 3N4

Project: TIN
 Comments: ATTN. GORDON RICHARDS

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 Certificate Date: 23-AUG-1999
 Invoice No. I9925647
 P.O. Number NDJ
 Account NDJ

CERTIFICATE OF ANALYSIS A9925647

SAMPLE	PREP CODE	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
99S 11	201 202	675	< 1 < 0.01	13	830	10	0.03	8	2	31	0.03	< 10	< 10	18	< 10	74	
99S 12	201 202	2090	< 1 < 0.01	18	790	8	0.02	< 2	2	28	0.03	< 10	< 10	30	< 10	68	
99S 13	201 202	200	< 1 < 0.01	14	850	6	0.05	< 2	2	36	0.03	< 10	< 10	24	< 10	62	
99S 14	201 202	1435	< 1 < 0.01	15	780	6	0.01	< 2	1	27	0.02	< 10	< 10	20	< 10	58	
99S 15	201 202	115	< 1 < 0.01	9	710	6	< 0.01	< 2	1	17	0.03	< 10	< 10	18	< 10	34	
99S 16	201 202	205	< 1 < 0.01	10	560	6	0.02	< 2	1	29	0.03	< 10	< 10	23	< 10	36	
99S 17	201 202	105	< 1 < 0.01	10	670	6	0.01	< 2	1	18	0.02	< 10	< 10	23	< 10	40	
99S 18	201 202	120	< 1 < 0.01	8	800	4	0.01	< 2	1	21	0.03	< 10	< 10	19	< 10	34	
99S 20	201 202	380	< 1 < 0.01	14	840	8	< 0.01	< 2	2	24	0.03	< 10	< 10	22	< 10	54	
99S 21	201 202	355	< 1 < 0.01	11	630	6	0.03	< 2	1	27	0.03	< 10	< 10	23	< 10	46	
99S 22	201 202	420	< 1 < 0.01	20	840	8	0.01	2	3	42	0.01	< 10	< 10	15	< 10	68	
99S 23	201 202	485	< 1 < 0.01	16	870	8	0.03	2	2	41	0.03	< 10	< 10	20	< 10	64	
99S 25	201 202	465	< 1 < 0.01	17	790	6	0.04	6	2	40	0.02	< 10	< 10	18	< 10	66	
99U 1	201 202	975	< 1 < 0.01	28	680	10	0.06	8	4	97	< 0.01	< 10	< 10	14	< 10	92	
99U 3	201 202	565	< 1 < 0.01	26	740	10	0.08	2	3	72	< 0.01	< 10	< 10	13	< 10	68	
99U 5	201 202	275	< 1 < 0.01	12	870	6	< 0.01	6	1	25	0.02	< 10	< 10	15	< 10	36	
99U 7	201 202	95	< 1 < 0.01	11	590	8	0.01	< 2	1	19	0.03	< 10	< 10	27	< 10	44	
99U 8	201 202	100	< 1 < 0.01	10	550	6	0.01	< 2	1	18	0.03	< 10	< 10	29	< 10	40	
99U 10	201 202	80	< 1 < 0.01	9	540	8	0.01	< 2	1	17	0.03	< 10	< 10	30	< 10	36	
99U 19	201 202	200	< 1 < 0.01	9	690	4	0.01	2	1	28	0.01	< 10	< 10	17	< 10	36	
99W 1	201 202	1145	< 1 < 0.01	14	730	6	0.05	2	1	37	0.01	< 10	< 10	18	< 10	60	
99W 2	201 202	905	< 1 < 0.01	13	740	6	0.02	< 2	1	34	0.01	< 10	< 10	21	< 10	46	
99W 3	201 202	500	< 1 < 0.01	14	700	8	0.04	2	2	38	0.03	< 10	< 10	22	< 10	56	
99W 26	201 202	270	< 1 < 0.01	19	720	12	0.05	8	2	30	0.02	< 10	< 10	23	< 10	62	
99Y 25	201 202	345	< 1 < 0.01	16	1240	4	0.01	< 2	4	50	0.09	< 10	< 10	47	< 10	56	
99Y 52	201 202	410	< 1 0.03	13	1120	4	0.01	< 2	4	40	0.11	< 10	< 10	52	< 10	58	
99Y 53	201 202	410	< 1 0.01	8	1560	2	0.01	< 2	5	25	0.12	< 10	< 10	53	< 10	54	
99Y 54	201 202	550	< 1 0.02	7	1930	2	0.01	< 2	5	28	0.11	< 10	< 10	59	< 10	48	
99Y 55	201 202	240	< 1 < 0.01	5	1450	2	< 0.01	2	4	15	0.10	< 10	< 10	51	< 10	32	
99Y 56	201 202	345	< 1 < 0.01	5	1990	2	< 0.01	< 2	4	16	0.07	< 10	< 10	35	< 10	42	
99Y 57	201 202	620	< 1 0.01	15	1250	2	0.02	< 2	10	27	0.12	< 10	< 10	61	< 10	64	
99Y 58	201 202	250	< 1 < 0.01	4	1380	2	< 0.01	< 2	4	11	0.09	< 10	< 10	39	< 10	34	
99Y 59	201 202	330	< 1 0.01	6	910	2	< 0.01	< 2	5	14	0.13	< 10	< 10	66	< 10	36	
99Y 60	201 202	440	< 1 0.01	8	1670	< 2	0.01	< 2	5	26	0.11	< 10	< 10	60	< 10	50	
99Y 81	201 202	360	< 1 0.02	8	1210	2	0.01	< 2	4	30	0.08	< 10	< 10	53	< 10	42	
99Y 94	201 202	345	< 1 0.03	9	2110	2	0.01	< 2	4	60	0.08	< 10	< 10	54	< 10	48	
99Z 1	201 202	295	< 1 0.01	14	840	12	0.02	< 2	3	29	0.09	< 10	< 10	45	< 10	64	
99Z 2	201 202	165	< 1 0.03	8	610	68	0.12	< 2	2	37	0.07	< 10	< 10	34	< 10	114	
99Z 3	201 202	100	1 0.02	8	500	30	0.10	< 2	1	34	0.05	< 10	< 10	27	< 10	60	
99Z 4	201 202	350	1 0.04	9	770	48	0.16	< 2	2	42	0.06	< 10	< 10	29	< 10	126	

SILTS

CERTIFICATION:

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Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
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To: RICHARDS, GORDON

6170 TISDALE ST.,
 VANCOUVER, BC
 V5Z 3N4

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 Comments: ATTN: GORDON RICHARDS

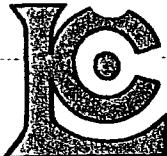
CERTIFICATE OF ANALYSIS A9925647

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
99Z 5	201	202	< 5	< 0.2	1.06	< 2	< 10	110	< 0.5	< 2	0.48	< 0.5	9	16	10	2.00	< 10	< 1	0.08	10	0.43
99Z 6	201	202	< 5	< 0.2	1.29	< 2	< 10	90	< 0.5	< 2	0.27	< 0.5	4	21	16	1.66	< 10	< 1	0.08	20	0.36
99Z 7	201	202	< 5	< 0.2	1.79	< 2	< 10	190	< 0.5	< 2	0.60	< 0.5	13	29	13	2.70	< 10	< 1	0.21	10	0.90
99Z 8	201	202	< 5	< 0.2	2.09	< 2	< 10	270	< 0.5	< 2	1.25	< 0.5	18	52	21	3.41	< 10	< 1	0.16	30	1.17
99Z 9	201	202	< 5	< 0.2	1.73	< 2	< 10	240	< 0.5	< 2	0.89	< 0.5	11	22	9	2.94	< 10	< 1	0.10	10	0.75
99Z 10	201	202	< 5	< 0.2	1.60	< 2	< 10	190	< 0.5	< 2	0.63	< 0.5	10	16	7	2.51	< 10	< 1	0.07	10	0.63
99Z 11	201	202	< 5	< 0.2	1.80	< 2	< 10	200	< 0.5	< 2	0.84	< 0.5	15	18	12	3.23	< 10	< 1	0.06	10	0.78
99Z 12	201	202	< 5	< 0.2	1.64	< 2	< 10	220	< 0.5	< 2	0.67	< 0.5	12	20	13	2.73	< 10	< 1	0.13	10	0.79
99Z 13	201	202	< 5	< 0.2	1.77	2	< 10	260	< 0.5	< 2	0.88	< 0.5	11	30	20	2.83	< 10	2	0.11	20	0.78
99Z 14	201	202	< 5	< 0.2	1.66	6	< 10	370	< 0.5	< 2	0.88	< 0.5	10	21	20	2.55	< 10	< 1	0.18	40	0.52
99Z 15	201	202	< 5	< 0.2	2.01	< 2	< 10	250	< 0.5	< 2	0.66	< 0.5	12	18	23	3.26	< 10	< 1	0.27	10	0.87
99Z 16	201	202	10	< 0.2	1.63	< 2	< 10	150	< 0.5	< 2	0.51	< 0.5	10	23	10	2.48	< 10	1	0.06	10	0.58
99Z 17	201	202	< 5	< 0.2	1.69	6	< 10	190	< 0.5	< 2	0.66	< 0.5	11	19	10	2.55	< 10	< 1	0.09	10	0.64
99Z 18	201	202	< 5	< 0.2	1.75	< 2	< 10	180	< 0.5	< 2	0.76	< 0.5	11	19	10	2.64	< 10	< 1	0.10	10	0.72
99Z 19	201	202	< 5	< 0.2	1.91	< 2	< 10	240	< 0.5	< 2	0.87	< 0.5	14	34	16	3.00	< 10	< 1	0.07	10	0.97
99Z 20	201	202	< 5	< 0.2	1.97	< 2	< 10	230	< 0.5	< 2	0.80	< 0.5	14	24	21	3.46	< 10	< 1	0.17	10	1.07
99Z 21	201	202	< 5	< 0.2	1.95	< 2	< 10	260	< 0.5	< 2	0.52	< 0.5	13	26	17	2.89	< 10	< 1	0.20	10	0.89
99Z 22	201	202	< 5	< 0.2	1.61	< 2	< 10	330	< 0.5	< 2	0.59	< 0.5	10	20	14	2.55	< 10	< 1	0.21	10	0.76
99Z 23	201	202	< 5	< 0.2	1.25	< 2	< 10	150	< 0.5	< 2	0.64	< 0.5	8	12	16	2.40	< 10	< 1	0.22	10	0.51
99Z 24	201	202	< 5	< 0.2	1.66	< 2	< 10	280	< 0.5	< 2	0.69	< 0.5	13	32	14	2.90	< 10	< 1	0.23	10	0.91
99Z 25	201	202	< 5	< 0.2	0.99	< 2	< 10	130	< 0.5	< 2	0.74	< 0.5	9	12	15	2.16	< 10	< 1	0.09	< 10	0.45
99Z 28	201	202	< 5	< 0.2	1.48	< 2	< 10	330	< 0.5	< 2	0.91	< 0.5	11	17	13	2.64	< 10	< 1	0.14	10	0.70
99Z 29	201	202	< 5	< 0.2	1.48	< 2	< 10	190	< 0.5	< 2	0.72	< 0.5	10	16	10	2.45	< 10	< 1	0.13	10	0.71
99Z 30	201	202	20	< 0.2	1.44	< 2	< 10	210	< 0.5	< 2	0.75	< 0.5	10	15	8	2.73	< 10	< 1	0.16	20	0.56
99Z 31	201	202	< 5	< 0.2	1.51	4	< 10	290	< 0.5	< 2	0.96	< 0.5	9	21	16	2.44	< 10	< 1	0.13	30	0.48

SILTS

CERTIFICATION

D. J. Richards



Chemex Labs Ltd.

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 British Columbia, Canada V7J 2C1
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To RICHARDS, GORDON

6170 TISDALE ST.,
 VANCOUVER, BC
 V5Z 3N4

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 Account NDJ

Project TIN
 Comments ATTN: GORDON RICHARDS

CERTIFICATE OF ANALYSIS A9925647

SAMPLE	PREP CODE	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
99Z 5	201 202	445	< 1	0.01	8	1070	12	0.02	< 2	2	28	0.06	< 10	< 10	32	< 10	52
99Z 6	201 202	135	< 1	0.01	8	550	22	0.03	< 2	2	23	0.06	< 10	< 10	24	< 10	70
99Z 7	201 202	505	< 1	0.01	12	1140	6	0.01	< 2	3	52	0.13	< 10	< 10	46	< 10	68
99Z 8	201 202	855	< 1	0.02	24	1070	6	0.04	< 2	5	71	0.09	< 10	< 10	49	< 10	80
99Z 9	201 202	480	< 1	0.01	14	1440	6	0.01	< 2	4	53	0.06	< 10	< 10	49	< 10	74
99Z 10	201 202	390	< 1	0.01	9	690	2	0.01	< 2	3	38	0.08	< 10	< 10	43	< 10	58
99Z 11	201 202	820	< 1	0.01	11	750	4	0.03	< 2	4	46	0.07	< 10	< 10	55	< 10	70
99Z 12	201 202	1100	< 1	0.01	13	850	6	0.03	< 2	4	49	0.09	< 10	< 10	46	< 10	82
99Z 13	201 202	575	< 1	0.01	16	890	4	0.03	< 2	5	46	0.06	< 10	< 10	40	< 10	62
99Z 14	201 202	545	< 1	0.01	13	1050	4	0.04	< 2	6	99	0.08	< 10	< 10	41	< 10	62
99Z 15	201 202	325	< 1	0.02	11	360	6	0.02	< 2	5	65	0.12	< 10	< 10	59	< 10	60
99Z 16	201 202	320	< 1	0.01	11	770	6	0.01	< 2	4	39	0.11	< 10	< 10	54	< 10	54
99Z 17	201 202	570	< 1	0.02	11	830	6	0.01	< 2	4	43	0.10	< 10	< 10	49	< 10	58
99Z 18	201 202	670	< 1	0.02	11	830	4	0.03	< 2	4	48	0.09	< 10	< 10	49	< 10	60
99Z 19	201 202	545	< 1	0.02	19	940	4	0.03	< 2	5	46	0.09	< 10	< 10	58	< 10	62
99Z 20	201 202	965	< 1	0.02	12	1110	16	0.03	< 2	8	37	0.13	< 10	< 10	70	< 10	128
99Z 21	201 202	790	< 1	0.01	12	990	6	0.02	< 2	6	29	0.13	< 10	< 10	56	< 10	84
99Z 22	201 202	600	< 1	0.01	12	940	2	0.03	< 2	6	30	0.08	< 10	< 10	41	< 10	68
99Z 23	201 202	420	< 1	0.02	6	1700	2	< 0.01	< 2	5	23	0.09	< 10	< 10	43	< 10	74
99Z 24	201 202	705	< 1	0.03	14	1620	6	0.01	< 2	7	31	0.11	< 10	< 10	62	< 10	68
99Z 25	201 202	395	< 1	0.03	6	2130	4	0.01	< 2	3	38	0.07	< 10	< 10	49	< 10	38
99Z 28	201 202	505	< 1	0.01	11	640	4	0.06	< 2	4	103	0.06	< 10	< 10	40	< 10	62
99Z 29	201 202	510	< 1	0.01	10	700	2	0.01	< 2	3	57	0.07	< 10	< 10	40	< 10	58
99Z 30	201 202	395	< 1	0.01	9	900	4	0.01	< 2	3	39	0.06	< 10	< 10	40	< 10	54
99Z 31	201 202	500	< 1	0.01	14	660	8	0.03	< 2	4	46	0.06	< 10	< 10	38	< 10	62

SILT

CERTIFICATION:



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave , North Vancouver
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 PHONE: 604-984-0221 FAX: 604-984-0218

To: RICHARDS, GORDON

6170 TISDALL ST
 VANCOUVER, BC
 V5Z 3N4

A9927488

Comments: ATTN: GORDON RICHARDS

CERTIFICATE

A9927488

(NDJ) - RICHARDS, GORDON

Project: TIN

P.O. #:

Samples submitted to our lab in Vancouver, BC.
 This report was printed on 10-SEP-1999.

SAMPLE PREPARATION

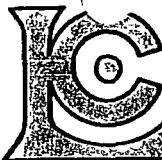
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
244	40	Pulp; prev. prepared at Chemex
229	40	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
2118	40	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
2119	40	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	40	As ppm: 32 element, soil & rock	ICP-AES	2	10000
557	40	B ppm: 32 element, rock & soil	ICP-AES	10	10000
2121	40	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	40	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123	40	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	40	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125	40	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	500
2126	40	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127	40	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128	40	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	40	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130	40	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
2131	40	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2132	40	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151	40	La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134	40	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135	40	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136	40	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137	40	Na %: 32 element, soil & rock	ICP-AES	0.01	10.00
2138	40	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139	40	P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140	40	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
551	40	S %: 32 element, rock & soil	ICP-AES	0.01	5.00
2141	40	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142	40	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143	40	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144	40	Ti %: 32 element, soil & rock	ICP-AES	0.01	10.00
2145	40	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146	40	U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147	40	V ppm: 32 element, soil & rock	ICP-AES	1	10000
2148	40	W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149	40	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000



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To: RICHARDS, GORDON

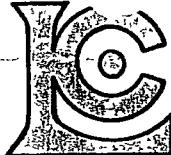
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Project: TIN
 Comments: ATTN: GORDON RICHARDS

CERTIFICATE OF ANALYSIS A9927488

SAMPLE	PREP CODE	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
99Y 5	244 229	2.0	1.73	14	< 10	140	< 0.5	6	0.14	< 0.5	4	18	28	2.57	< 10	< 1	0.10	10	0.36	180
99Y 6	244 229	1.6	2.22	12	< 10	120	< 0.5	< 2	0.18	< 0.5	4	16	81	3.34	< 10	< 1	0.22	30	0.70	355
99Y 7	244 229	2.6	1.64	36	< 10	170	< 0.5	16	0.12	< 0.5	3	10	46	3.30	< 10	< 1	0.19	30	0.33	170
99Y 8	244 229	0.2	1.75	14	< 10	160	< 0.5	< 2	0.11	< 0.5	4	19	33	2.79	< 10	< 1	0.07	10	0.35	130
99Y 9	244 229	0.2	1.47	16	< 10	150	< 0.5	< 2	0.13	< 0.5	4	19	31	2.66	< 10	< 1	0.05	20	0.31	110
99Y 10	244 229	< 0.2	1.57	20	< 10	190	< 0.5	< 2	0.11	< 0.5	4	19	14	3.32	< 10	< 1	0.06	20	0.30	110
99Y 11	244 229	< 0.2	1.30	16	< 10	100	< 0.5	< 2	0.10	< 0.5	4	15	14	3.17	< 10	< 1	0.07	10	0.21	120
99Y 12	244 229	0.4	1.37	12	< 10	100	< 0.5	6	0.08	< 0.5	3	11	9	3.78	< 10	< 1	0.06	20	0.16	60
99Y 13	244 229	0.2	1.71	14	< 10	230	< 0.5	< 2	0.34	< 0.5	8	24	15	2.92	< 10	< 1	0.08	40	0.45	260
99Y 14	244 229	< 0.2	1.35	18	< 10	260	< 0.5	< 2	0.43	< 0.5	7	30	13	2.23	< 10	< 1	0.26	60	0.52	255
99Y 61	244 229	< 0.2	2.25	8	< 10	560	< 0.5	< 2	0.54	< 0.5	12	34	27	3.33	< 10	< 1	0.15	30	0.78	420
99Y 62	244 229	< 0.2	2.55	6	< 10	430	< 0.5	< 2	0.51	< 0.5	12	28	22	3.76	< 10	< 1	0.22	20	0.78	350
99Y 63	244 229	< 0.2	2.43	10	< 10	300	< 0.5	< 2	0.32	< 0.5	10	34	19	3.29	< 10	< 1	0.15	10	0.74	320
99Y 64	244 229	< 0.2	3.16	6	< 10	370	< 0.5	< 2	0.73	< 0.5	15	34	13	4.50	< 10	< 1	0.25	10	1.15	425
99Y 65	244 229	< 0.2	1.99	4	< 10	270	< 0.5	< 2	0.45	< 0.5	10	35	18	2.95	< 10	< 1	0.12	10	0.76	345
99Y 66	244 229	< 0.2	2.36	10	< 10	480	< 0.5	< 2	0.84	< 0.5	11	22	15	3.38	< 10	< 1	0.18	30	0.91	560
99Y 67	244 229	< 0.2	2.07	6	< 10	460	< 0.5	< 2	0.48	< 0.5	11	29	32	3.15	< 10	< 1	0.10	20	0.72	410
99Y 68	244 229	< 0.2	1.84	8	< 10	540	< 0.5	< 2	0.84	< 0.5	11	29	39	2.78	< 10	< 1	0.09	30	0.72	605
99Y 69	244 229	< 0.2	1.70	2	< 10	290	< 0.5	< 2	0.74	< 0.5	11	31	13	2.99	< 10	< 1	0.25	< 10	1.00	360
99Y 70	244 229	< 0.2	2.03	4	< 10	280	< 0.5	< 2	0.66	< 0.5	12	18	32	3.14	< 10	< 1	0.63	10	1.15	410
99Y 71	244 229	< 0.2	2.19	6	< 10	400	< 0.5	< 2	0.44	< 0.5	11	31	14	3.11	< 10	< 1	0.12	10	0.72	300
99Y 72	244 229	< 0.2	2.45	10	< 10	880	< 0.5	< 2	0.65	< 0.5	14	32	40	3.87	< 10	< 1	0.21	30	0.84	600
99Y 73	244 229	< 0.2	1.57	6	< 10	350	< 0.5	< 2	0.45	< 0.5	8	21	11	2.72	< 10	< 1	0.16	10	0.68	275
99Y 74	244 229	< 0.2	1.85	10	< 10	350	< 0.5	< 2	0.47	< 0.5	11	28	14	3.15	< 10	< 1	0.17	10	0.73	440
99Y 75	244 229	0.2	1.66	8	< 10	370	< 0.5	< 2	0.60	< 0.5	11	25	11	3.00	< 10	< 1	0.14	< 10	0.71	550
99Y 76	244 229	< 0.2	1.82	8	< 10	350	< 0.5	< 2	0.59	< 0.5	16	35	44	3.77	< 10	< 1	0.17	< 10	0.86	660
99Y 77	244 229	0.2	2.58	8	< 10	470	< 0.5	< 2	0.89	< 0.5	14	53	33	3.94	< 10	< 1	0.22	10	1.08	520
99Y 78	244 229	< 0.2	1.90	6	< 10	450	< 0.5	< 2	0.62	< 0.5	11	28	24	3.17	< 10	< 1	0.15	10	0.71	430
99Y 79	244 229	< 0.2	1.73	6	< 10	260	< 0.5	< 2	0.57	< 0.5	11	30	26	2.54	< 10	< 1	0.05	10	0.65	390
99Y 80	244 229	0.2	1.62	12	< 10	280	< 0.5	< 2	0.39	< 0.5	9	25	14	2.33	< 10	< 1	0.05	< 10	0.55	335
99Y 83	244 229	< 0.2	2.33	2	< 10	350	< 0.5	< 2	0.42	< 0.5	14	18	15	3.76	< 10	< 1	0.68	< 10	1.42	525
99Y 84	244 229	< 0.2	1.25	8	< 10	320	< 0.5	< 2	0.15	< 0.5	7	22	12	2.24	< 10	< 1	0.16	10	0.43	345
99Y 85	244 229	< 0.2	3.42	< 2	< 10	640	< 0.5	< 2	0.88	< 0.5	19	12	25	5.90	10	< 1	1.38	< 10	2.00	965
99Y 86	244 229	< 0.2	2.64	10	< 10	500	< 0.5	< 2	0.45	< 0.5	13	37	25	3.90	< 10	< 1	0.28	10	0.87	430
99Y 88	244 229	< 0.2	2.41	6	< 10	420	< 0.5	< 2	0.28	< 0.5	11	41	25	3.56	< 10	< 1	0.21	10	0.74	290
99Y 89	244 229	< 0.2	3.51	6	< 10	930	< 0.5	< 2	0.78	< 0.5	19	66	34	5.17	10	< 1	0.47	40	1.90	660
99Y 90	244 229	< 0.2	2.08	12	< 10	350	< 0.5	< 2	0.68	< 0.5	11	36	30	2.95	< 10	< 1	0.08	10	0.75	370
99Y 91	244 229	< 0.2	1.82	6	< 10	250	< 0.5	< 2	0.32	< 0.5	10	25	13	2.77	< 10	< 1	0.19	< 10	0.85	320
99Y 92	244 229	0.2	3.24	20	< 10	1240	< 0.5	< 2	0.43	< 0.5	12	38	33	4.13	< 10	< 1	0.20	10	0.80	530
99Y 93	244 229	< 0.2	3.99	8	< 10	440	< 0.5	< 2	0.40	< 0.5	19	26	7	5.95	10	< 1	1.06	< 10	2.11	745



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RICHARDS, GORDON

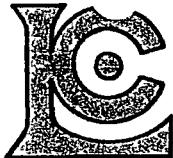
6170 TISDALL ST.,
 VANCOUVER, BC
 V5Z 3N4

Project: TIN
 Comments: ATTN. GORDON.RICHARDS

Page 1 of 1-B
 Total Pages 1
 Certificate Date: 10-SEP-1999
 Invoice No 19927488
 P.O. Number
 Account NDJ

CERTIFICATE OF ANALYSIS A9927488

SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
99Y 5	244 229	1	0.03	7	270	124	0.11	< 2	2	29	0.06	< 10	< 10	35	< 10	102
99Y 6	244 229	1	0.03	7	580	156	0.16	< 2	1	42	0.10	< 10	< 10	25	< 10	314
99Y 7	244 229	2	0.07	4	500	308	0.43	< 2	3	49	0.05	< 10	< 10	22	< 10	160
99Y 8	244 229	1	0.03	7	240	48	0.10	< 2	2	31	0.05	< 10	< 10	36	< 10	96
99Y 9	244 229	1	0.02	8	190	28	0.06	< 2	3	34	0.05	< 10	< 10	36	< 10	44
99Y 10	244 229	3	0.03	7	250	26	0.08	< 2	2	35	0.05	< 10	< 10	38	< 10	72
99Y 11	244 229	3	0.02	8	260	34	0.06	< 2	1	25	0.03	< 10	< 10	32	< 10	102
99Y 12	244 229	2	0.02	4	260	44	0.08	< 2	1	35	0.03	< 10	< 10	22	< 10	48
99Y 13	244 229	3	0.01	11	570	38	0.03	< 2	3	44	0.06	< 10	< 10	31	< 10	66
99Y 14	244 229	< 1	0.01	18	860	4 < 0.01	< 2	1	27	0.08	< 10	< 10	19	< 10	50	
99Y 61	244 229	1	0.03	20	490	6 < 0.01	< 2	6	40	0.12	< 10	< 10	70	< 10	58	
99Y 62	244 229	1	0.02	18	750	6 < 0.01	< 2	6	36	0.07	< 10	< 10	67	< 10	62	
99Y 63	244 229	1	0.02	18	260	6 < 0.01	< 2	4	33	0.12	< 10	< 10	70	< 10	54	
99Y 64	244 229	1	0.04	19	1030	2 < 0.01	< 2	6	43	0.12	< 10	< 10	91	< 10	80	
99Y 65	244 229	1	0.03	17	290	6 < 0.01	< 2	5	35	0.12	< 10	< 10	65	< 10	58	
99Y 66	244 229	1	0.03	14	1030	6 < 0.01	< 2	5	46	0.11	< 10	< 10	60	< 10	74	
99Y 67	244 229	1	0.02	17	420	6 < 0.01	< 2	5	30	0.10	< 10	< 10	61	< 10	58	
99Y 68	244 229	2	0.02	23	710	6 < 0.02	< 2	6	38	0.07	< 10	< 10	53	< 10	60	
99Y 69	244 229	2	0.03	19	1100	4 < 0.01	< 2	4	29	0.10	< 10	< 10	57	< 10	70	
99Y 70	244 229	3	0.03	10	1570	< 2 < 0.01	< 2	3	29	0.14	< 10	< 10	69	< 10	78	
99Y 71	244 229	1	0.02	14	370	6 < 0.01	< 2	4	31	0.10	< 10	< 10	63	< 10	62	
99Y 72	244 229	1	0.03	18	920	2 < 0.01	< 2	11	43	0.10	< 10	< 10	72	< 10	82	
99Y 73	244 229	5	0.02	9	620	4 < 0.01	< 2	4	29	0.10	< 10	< 10	58	< 10	56	
99Y 74	244 229	6	0.02	12	620	6 < 0.01	< 2	5	27	0.11	< 10	< 10	66	< 10	64	
99Y 75	244 229	3	0.02	11	900	4 < 0.01	< 2	4	28	0.09	< 10	< 10	58	< 10	68	
99Y 76	244 229	4	0.03	16	820	6 < 0.01	< 2	5	28	0.10	< 10	< 10	74	< 10	76	
99Y 77	244 229	3	0.03	29	910	4 < 0.01	< 2	8	39	0.14	< 10	< 10	78	< 10	92	
99Y 78	244 229	3	0.02	14	780	10 < 0.01	< 2	7	31	0.11	< 10	< 10	59	< 10	72	
99Y 79	244 229	2	0.03	21	610	6 < 0.01	< 2	4	39	0.09	< 10	< 10	53	< 10	60	
99Y 80	244 229	1	0.02	14	660	6 < 0.02	< 2	3	28	0.07	< 10	< 10	49	< 10	60	
99Y 83	244 229	1	0.02	10	780	2 < 0.01	< 2	9	24	0.17	< 10	< 10	92	< 10	64	
99Y 84	244 229	1	0.01	11	160	6 < 0.01	< 2	4	15	0.06	< 10	< 10	47	< 10	38	
99Y 85	244 229	< 1	0.04	5	2610	< 2 < 0.01	< 2	9	32	0.28	< 10	< 10	131	< 10	124	
99Y 86	244 229	1	0.01	22	740	6 < 0.01	< 2	8	38	0.13	< 10	< 10	78	< 10	66	
99Y 88	244 229	1	0.01	23	300	6 < 0.01	< 2	7	29	0.11	< 10	< 10	68	< 10	62	
99Y 89	244 229	< 1	0.03	26	1380	6 < 0.01	< 2	9	84	0.24	< 10	< 10	120	< 10	92	
99Y 90	244 229	1	0.04	21	590	6 < 0.01	< 2	6	45	0.12	< 10	< 10	61	< 10	58	
99Y 91	244 229	1	0.02	11	360	4 < 0.01	< 2	5	22	0.13	< 10	< 10	63	< 10	52	
99Y 92	244 229	2	0.02	18	490	8 < 0.01	< 2	8	35	0.14	< 10	< 10	93	< 10	76	
99Y 93	244 229	< 1	0.03	10	1480	2 < 0.01	< 2	10	27	0.23	< 10	< 10	135	< 10	118	



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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TO: RICHARDS, GORDON

6170 TISDALL ST.,
 VANCOUVER, BC
 V5Z 3N4

A9927489

Comments: ATTN: GORDON RICHARDS

CERTIFICATE

A9927489

(NDJ) - RICHARDS, GORDON

Project: TIN
 P.O. #:

Samples submitted to our lab in Vancouver, BC.
 This report was printed on 09-SEP-1999.

SAMPLE PREPARATION

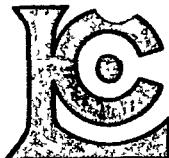
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
244	2	Pulp; prev. prepared at Chemex
229	2	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
2118	2	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
2119	2	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	2	As ppm: 32 element, soil & rock	ICP-AES	2	10000
557	2	B ppm: 32 element, rock & soil	ICP-AES	10	10000
2121	2	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	2	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123	2	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	2	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125	2	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	500
2126	2	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127	2	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128	2	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	2	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130	2	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
2131	2	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2132	2	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151	2	La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134	2	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135	2	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136	2	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137	2	Na %: 32 element, soil & rock	ICP-AES	0.01	10.00
2138	2	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139	2	P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140	2	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
551	2	S %: 32 element, rock & soil	ICP-AES	0.01	5.00
2141	2	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142	2	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143	2	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144	2	Ti %: 32 element, soil & rock	ICP-AES	0.01	10.00
2145	2	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146	2	U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147	2	V ppm: 32 element, soil & rock	ICP-AES	1	10000
2148	2	W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149	2	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000



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To: RICHARDS, GORDON

6170 TISDALL ST.,
 VANCOUVER, BC
 V5Z 3N4

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 Total Pages 1
 Certificate Date 09-SEP-1999
 Invoice No. 19927489
 P.O. Number :
 Account : NDJ

Project: TIN
 Comments: ATTN: GORDON RICHARDS

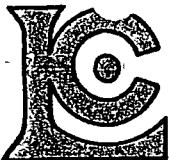
CERTIFICATE OF ANALYSIS

A9927489

SAMPLE	PREP CODE	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
99Y 95	244 229	0.2	0.41	< 2	< 10	160	< 0.5	< 2	0.66	< 0.5	1	92	12	0.92	< 10	< 1	0.12	< 10	0.23	215
99Y 96	244 229	3.0	0.22	< 2	10	830	< 0.5	< 2	9.41	1.0	22	89	9	3.72	< 10	< 1	0.13	< 10	4.19	1705

RX

CERTIFICATION:



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To: RICHARDS, GORDON

6170 TISDALE ST.,
 VANCOUVER, BC
 V5Z 3N4

Page: 1 of 1-B
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CERTIFICATE OF ANALYSIS

A9927489

SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Tl %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
99Y 95	244 229	17	0.06	3	80	16	0.04	< 2	1	38	< 0.01	< 10	< 10	8	< 10	20
99Y 96	244 229	2990	< 0.01	73	940	268	0.28	6	17	551	< 0.01	< 10	< 10	20	< 10	82

RF

CERTIFICATION:



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RICHARDS, GORDON

6170 TISDALL ST.,
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V5Z 3N4

A9929226

Comments: ATTN: GORDON RICHARDS

CERTIFICATE

A9929226

(NDJ) - RICHARDS, GORDON

Project: TIN
P.O. #:

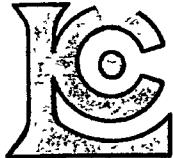
Samples submitted to our lab in Vancouver, BC.
This report was printed on 27-SEP-1999.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	7	Dry, sieve to -80 mesh
202	7	save reject

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
3993	7	Au ppb: Fuse 30 gram-EXT-AA fin.	FA-EXT-AA	1	1000



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Total Pages 1
Certificate Date: 27-SEP-1999
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Project . TIN
Comments: ATTN: GORDON RICHARDS

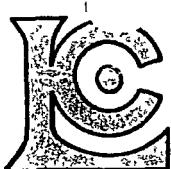
CERTIFICATE OF ANALYSIS

A9929226

SAMPLE	PREP CODE	Au ppb EXT-AA											
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99019	201	202	< 1										
99020	201	202	8										
99021	201	202	2										
99022	201	202	4										
99023	201	202	18										

SILTS

CERTIFICATION.



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VANCOUVER, BC
V5Z 3N4

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Comments: ATTN: GORDON RICHARDS

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Project: TIN
P.O. #:

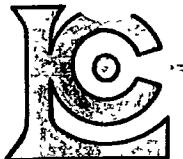
Samples submitted to our lab in Vancouver, BC.
This report was printed on 27-SEP-1999.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	11	Dry, sieve to -80 mesh
202	11	save reject

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
3993	11	Au ppb: Fuse 30 gram-EXT-AA fin.	FA-EXT-AA	1	1000



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE 604-984-0221 FAX: 604-984-0218

To: RICHARDS, GORDON

6170 TISDALL ST,
VANCOUVER, BC
V5Z 3N4

Project: TIN
Comments ATTN: GORDON RICHARDS

Page : 1
Total Pages : 1
Certificate Date: 27-SEP-1999
Invoice No.: 19929227
P.O. Number:
Account : NDJ

CERTIFICATE OF ANALYSIS

A9929227

SAMPLE	PREP CODE		Au ppb EXT-AA										
X14	201 202		< 1										
X33	201 202		2										
X34	201 202		< 1										
X35	201 202		2										
X36	201 202		2										
X37	201 202		< 1										
X38	201 202		4										
X39	201 202		9										
X40	201 202		< 1										
X41	201 202		< 1										
X42	201 202		< 1										

SILTS

CERTIFICATION:

S. Richards



Chemex Labs Ltd.

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TO: RICHARDS, GORDON

6170 TISDALL ST.,
VANCOUVER, BC
V5Z 3N4

A9929228

Comments: ATTN: GORDON RICHARDS

CERTIFICATE

A9929228

(NDJ) - RICHARDS, GORDON

Project: TIN
P.O. #:

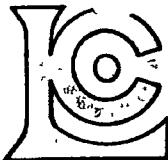
samples submitted to our lab in Vancouver, BC.
This report was printed on 24-SEP-1999.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	4	Geochem ring to approx 150 mesh
226	4	0-3 Kg crush and split
3202	4	Rock - save entire reject

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	4	Au ppb: Fuse 30 g sample	FA-AAS	5	10000



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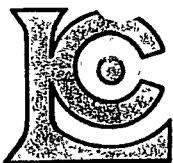
CERTIFICATE OF ANALYSIS

A9929228

SAMPLE	PREP CODE	Au ppb FA+AA											
X43	205	226	< 5										
X44	205	226	< 5										
X45	205	226	< 5										
X54	205	226	5										

P+

CERTIFICATION: in accordance



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o. RICHARDS, GORDON

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A9929229

Comments: ATTN: GORDON RICHARDS

CERTIFICATE

A9929229

(NDJ) - RICHARDS, GORDON

Project: TIN
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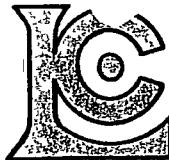
samples submitted to our lab in Vancouver, BC.
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SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	39	Dry, sieve to -80 mesh
202	39	save reject

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
3993	39	Au ppb: Fuse 30 gram-EXT-AA fin.	FA-EXT-AA	1	1000



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TO RICHARDS, GORDON

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Page 1 of 1
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CERTIFICATE OF ANALYSIS A9929229

SAMPLE	PREP CODE		Au ppb EXT-AA										
X1	201 202			3									
X2	201 202			3									
X3	201 202			7									
X4	201 202			< 1									
X5	201 202			3									
X6	201 202			16									
X7	201 202			8									
X8	201 202			15									
X9	201 202			26									
X10	201 202			24									
X11	201 202			5									
X12	201 202			4									
X13	201 202			7									
X15	201 202			< 1									
X16	201 202			< 1									
X17	201 202			< 1									
X18	201 202			< 1									
X19	201 202			5									
X20	201 202			< 1									
X21	201 202			3									
X22	201 202			< 1									
X23	201 202			5									
X24	201 202			< 1									
X25	201 202			< 1									
X26	201 202			< 1									
X27	201 202			< 1									
X28	201 202			< 1									
X29	201 202			< 1									
X30	201 202			< 1									
X31	201 202			< 1									
X32	201 202			2									
YUKON ENERGY MINES	201 202			< 1									
X46	201 202			3									
X47	201 202			55									
X48	201 202			2									
X49	201 202												
X50	201 202			3									
X51	201 202			< 1									
X52	201 202			< 1									
X53	201 202			4									

SNL5

copies of
FIELD NOTES

of

Gordon G. Richards

+

Dave Bennett

on

G. Richards (999) Grassroots Prospecting Program

99-059

No 1 2 3
JEZEK 1 4 3

5

1500 2

Gordon G Richard

June 30/99

1120 advd.

2380 edges slabs
on rd.

870' part No 1 of 21+22

OC w $\frac{1}{2}$ m chn schmp qtz (S)

same pyroxmte silic w qtz inlets (S)

cancel @ 970 after 25,26 No 2.

@ 450 last length start OC

510 N of No 35 subm bln in till (S)

same limeite

✓ 1060 CK 3 pces silic sed - qtz

860 part 39 No 1 OC phyllite gneiss

770 N of No 1 A1 mchlt w water

1050 S of Noh 93, 94
11m hnfld SS?

✓ 1250 (S) purple silic'd w/ mafic flocs

R119 left truck Field Ck on old rd @ weathered

bridge: up to road + chained NW

Up to open hill @ SE corner above

OC Qtz phyllite contact w/ sd?

900+ R119 RC gentle dip to schistose

X cutting Qtz as well

940+ R120 Soil in hill. Knotted phyllite

float + more Qtz

150 top of bank then gentle climb

N.D.M. 515 R121 yellow soil no grit or bkg

590 R122 yellow gray soil w/ phyllite cpx

665 R123 Orange soil w/ cpx phyllite

also submd. crabbie Qtz

730 2 pits both loess(?)

810 R124 Soil w/ phyllite cpx

Also 1/2 m bds on surface

865 R125 yellow soil w/ phyllite cpx

950 R126 yellow soil w/ Qtz phyllite cpx +

Qtz cpx (few bds in red
in small knoll)

2 samples less or sit up to 1190 @
edge bank into Ck.

1230 first mixed soil

1240 R127 clay rich phyllite cpx w/ sand
fels cobbles 1/2 way down slope

LEVEL
4

1340 CK @ small pond

R127 Silt unsorted

R128F RC silty phyllite w X cutting qtz
units (S)

R129F RC blue qtz subrounded (S)

Set 0 m

Up creek N side

60m R130 Soil on base slope phyllite cps
large phyllite bldrs & flns

140m R131 yellow silt phyllite cps + rnd pbls

220 R132 mixed cln+rnd cps silt

290 R133 myd silt

350 fine sed (lvs?)

370 R134 myd silt rnd cln (flns?)

435 R135 myd silt more cln

510 R136 myd silt cln phyllite bldrs
step bowl into ck below + back

550 OC dead phyllite

580 R137 RC subcln flt (S) extremely
leached w fmnite foliated

600 R138 myd silt phyllite qtz rich

610 NS chm line

NEVILLE CROSBY INC. 47L

5

690 R139 yellow grey soil mod
much times 1.16 all before

760 R140 yellow tan mod soil

790 big ac ~~bb~~ running up + down hill

psammite phyllite same qtz not much

810 R141 RC locally silic. Spotted with (?)
low X cutting qtz units880 Creek trib^y running smooth cables
R142 silt OC phyllite along Rk

Cross over + down to main Rk

R143 Silt

R144 RC qtz

most flt w cln phyllite

few % in cables qtz bldrs

some round quartz

[SEH] 0 m

270m on top silt

~~50m no soil~~370m R145 Till 2.0 cm fine ave
gnish grey rkg till cln phyllite
round phyllite + qtz

[Sandbank]

680 R146 yellow grey till small ps
phyllite + sand qtz 3.0 cm less

LEVEL
6

940 E-W string lim

970 dry hole 30 cm no grit, unless
back to cl. lim + 50m E to

qtz bld. Dug 25cm deep grit

loess w thin pis grit 1cm phyllite
20m N + 5m N

R147 411W silty (messy?) till

2cm phyllite cps + rounded pebbles
some qtz

1330 R148 qnsh yellow grey till qtz bldes

vk pebbles and 2cm phyllite

5 cm loess on top

1460 2m x 1m stub clon. psammite (sil.?)

1720 R149 qnsh grey dry till 10cm loess
rnd qtz bldes

on moderate S slope

1950 Start steep hill S side

1960 2m phyllite (sil.?)

2000 OC flat psammite w hairline

X cutting qtz vltts > 1mm

2070 bare slope

R150 Qtz bld 20 m from R147 (S)

P151 CK Xg on 35,36 Silicic acid mostly qtz very rounded

R152 150 m S of CK on 35,36 clon. Qtz + broken silicic acid
w fine sand sub rounded bldes

NEVILLE CROSBY INC. 47 L

7

e creek

North 0"

150m No 2 JEZEK 28.

187m R153 RC 1" x 2" clon psammite

me and silicic w lim fracs

300m R154 Soil n variably silicic psammite
w frac silica + limonite low

Contain W Y 0"

30m R155 RC qtz 30cm w 1cm vngs

100m R156 Soil w sub clon qtz cps

175m R157 Soil clon phyllite

240m OC phyllite 09/05 N

R158 limonite vngs + fracs some qtz Psammite

330 loess

360 R159 Soil all psammite cps + bldes
carb → lim + lim fracs dry 35m

450 mixed bed + phyllite cps

R160 RC sub vng psammite Same as

Some 3mm pebbles carb → lim + lim fracs

minor X cutting qtz vltts

530 R161 qnsh grey Soil w. phyllite cps

560 OC 2m up hill gritty psammite (loess like)

610 R162 qnsh grey soft phyllitic cps

LEVEL

- 690 R163 gash grey 6m soil same rnd qtz
loess on top to 5 cm
- 760 R164 yell 5m soil under gash grey
silt few ochre. All phyll cts
- 795 dry wadlet phyll cts low qtz
- 865 R165 Gash grey soil clm cts
- 940 R166 " " " " " wqtz
- 995 R167 " " " " " under 10 cm loess cts max
- 1075 R168 gash yell soil 1km phyll cts
- 1150 R169 yell soil clm " "
- 40 cm - 50 cm top
- 1225 R170 gash yell soil clm cts
- 1305 R171 gy bn soil clm cts subrnd qtz
on clm line
- 1375 R172 gash yell grey soil clm phyll
wqtz (small? to much? loess?)
- 1450 deep loess
- 1530 river bank
- R173 gash yell soil under loess
w subrnd qtz + 1km phyll
- (1600) wadlet R174 silt good grey
- 1700 brow of hill brown
- R175 gash yell soil under yell fm
loess w rnd qtz

MEVILLE CROSBY INC. 111

- 1775 deep loess
- 1830 R176 1km yell soil same loess?
- break stony loess 20m?
- 1930 R177 dry gash yell grey soil
1km phyll
- 1940 1km slab big pscmite wqtz
no loess
- 2000 R178 gash grey soil 1km pscm
step slope subrnd pscm 1960±
- 2070 much pscmite subrnd, OC trouble
on step slope since R178 few
large qtz bldrs. Pscm not alt'd
- 2130 R179 yell clm cts soil
- 2200 R180 Dry yell till rnd qtz + other
minin 1km cts
- 2270 top step w facies bldrs
at least general outwash
- 2360 R181 good silt CK full of 2cm
bldrs pscmite, same qtz bldrs
Same bldrs bldrs
True rounded bldrs
- 2400 OC pscmite
- 2480 clm line 2560 dry wadlet
- 2600 onto flats

9

0 LEVEL

NEVILLE CHROMA INC. 471

2 km west from double creek on
minto lake rd.

[Smith] cross creek on log

South 0 m

590m base steep slope and biotite felsite or
L1 Till good over clay felsite
rubble & Red gzt + subclay felsite
and others

615 Clay felsite rubble

800m 50 cm hole in loess bottom in pfirst

830 60 cm

860 L2 Till sample below 40 cm
mixed till and loess

Sample sandy mostly red rubble
some subclay

large bl dr discharge nearby

1040 starting across ridge top
subangular felsite

1130 lunch top of cliff felsite some rusty
felsite frags

1160 W across hill to small gully
G1 Silt collected from puddles

standing water - No flow

(+) felsite + gzt - other rubble

G2 felsite along E bank

L2

120^m back on ridge above anomaly calc.

0^m Contour + drop into凹谷

120^m above all - much ec felsite showing
pronounced flint foliation

220^m G2 silt good much fine

flit mostly 2mm debris fair amount
till blds med g qtz

950 crossed dry valley E side of clk.
all cr's dolate

1080 G3 silt good fine same org
no rx no rk chmp

Crust barely flowering

[SE] Set 0^m

400^m L3 More of a soil 10 cm loess
Then start clst clay alt felsite
Can break slabs + p. bbls by hand
No sand pebbles - all felsite
Sample collected @ 60 cm depth

060° Set 0^m

90^m large rd bld

95^m rounded 025° 10^m wide

300^m L4 Top 15 cm cobble mix + loess

Then yellow till qtz - phyllite. Bbbles

Some sand mixed fine

Sample 90 cm depth

MCNAUL CROSBY INC. 47 L

13

580^m L5 Till just before willow patch
40-60 cm depth Top 10 cm mixed
loess - till. Good dol in till
pbbls qtz - phyllite - quartz?

675

[G15P] no root

900^m L6 (Till beneath 70 cm loess
pbbls mixed to cobbles
gray bn

1200 L7 Till grey slightly brown
fine pebbly till non stratified
hard + compact @ 30-40 cm dep
top 20 cm mixed tills + some loess?
yellow brown layer 15-25 cm

1500 L8 grsh gray till pebbly

40 cm dep Top 2 cm loess-till

1800 L9 good dol bn till 15 cm later
sample @ 50 cm
clst phyllite cps + cobbles
some m2 qtz

2100 Big Break Slope Deep Loess

2250 Basal slope angle NW.

2200 creek

REVER

NEVILLE CROSSY INC

三
九

Mint

Leaving Frank Zoo in part 2nd car
on mtns to Lc Rd.

800^m edge first walk on trail

960 Gg fine sift.

980 Same gully more water +
outwash (1m) phyllite + qtz.

Bugs:

1260 G5 fine silt 2nd gallery

Slabs of black + black phyllite

1650 top of wet creek on margin
phyllite dark grey gentle dips

720 66 screened - 30 mesh silt

March 9th + 1/2 a pole to dark phyt.

16

Living Landing where parked few days ago.

05.5

05.8 + flat ac phyllite
to 08.0

08.0 large phyllite slabs + clean rubble
along ditch

8.7 first felsite rubble

8.8 much felsite rubble

— across 50-100 cm
— side-by-side felsite slabs
— silt > 1 m

9.0-9.6 clay slabs debris felsite
OC @ 9.3+

9.7 mixed phyllite + felsite ft

orange qtz bldg set down sub clay
with rounded frags

G7 RC qtz

10.5 small steep cliff into OC

11.0 pull out 200 m from first one.

12.2 km much long - silicite fars
2 km rubble along ditch

NEVILLE CHOSEY INC. 471

17

G9 silicite lms frac'd felsite
leached sp? (6)

G9 + G10 in bush as OC above of
drom glacial scoured diatremoid
feature slopes gently E
strikes due E-W

G9 + G10 both psammitic
calcareous spots thin plant +
variable qtz veins + silt

G11 chalced schist w qtz-lim veins

G12 Clay rubble in ditch

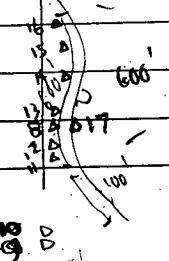
silicite long phyllite w garnet + gray sp? /
X cutting qtz vns

G13 bleached qtz vns lms? X cutting qtz
in ditch, in above bottom slope in bank

G14 bleached silicite qtz vns? lms? below truck
in ditch.

G15 75' downward past rubble dark phyllite
Subway 31 dy. bleached long phyllite w qtz

G16 chl-ser w qtz + each knot schist



DON
+
HILL
marked into
open tree

97

G17 Silicite qtz and blocks
2 km slabs lms

LEVEL

8

12.5 normal phyllite OC

13.1 OC?

13.25 subang atle? phyllite monom
+ spiky phyllite schist

13.4. hampt

NEVILLE CROSBY INC. 47 L

Stibnite Ok.

0m L. uphly blue lim recent w/ stib no blcks
35m R182 RC OC chl qtz schist w

Xing lime w/ low lim

220 R183 dry soil grey yellow
w/ low phyllite cps marble

6 m se qtz blcks in area

other round blck marble 2mm x 6

235 RC R184 Qtz blck 30cm

418 large 1m qtz blck

450 2 more 1m " "

R185 Soil chl. schist cps

470 2 - 1 1/2 qtz blcks

500 R186 RC qtz blck 1 m zothor valley

620 numerous qtz blcks w chl schist

2 cm slabs

630 R187 RC bleached + leached? schist
in qtz blck field

660 R188 Soil rps phyllite chl + qtz

750 2m qtz sm

900 R189 Soil cps phyllite + qtz 1m

1100 R190 Soil 60 cm deep
chl phyllite qtz.Then float clean pale gray phyllite planned
state

1260 subang flat

LEVEL
20

1300 R191 unnde gnyng 1cm soil

10 cm deep

1500 R192 1cm soil chl. cps
On flats1700 R193 1cm soil chl. cps + qtz
60 cm deep1820 R194 RC pale phyllite + 2" chd (50?)
large in sand bldr nearby1900 R195 Rky yellow soil 30 cm deep
No siltstone loess layer2100 L10 Till gnyh brown subrnd
phyll - qtz + andes pebbles
Some sub flint2400 R196 Soil 1cm phyllite much qtz
W chd sq 3" +

R197 RC qtz in 5 cm max width

2670 L11 Dark grey brown clay with fill
Benth 5-10 cm org + 20-30
cm loess? W 1cm cps
Till has wind + 1cm rck frags

East 0"

1050 on moose trail

R198 Soil yellow unnde wider with 1cm soil
30cm sample 250 cm only one phyll. cps
Very clay rich. Calc. siltum - 200 mesh

NEVILLE CROSBY INC. 47L

South 0"

205 R199 Soil 50 cm deep

gny grey blyy cps chl phyll

300 m into trail + big oc 1m +

flat lying white blched phyll psammite

340 m trail R200 blched psammite

chl sq 1" - "frac" (S)

Several large pgs

400 R201 Soil 1cm phyllite + qtz

600 R202 Rky soil 1cm silic phyll
root over bank

750 edge hill

800 R203 Soil

1000 R204 Soil rky loess (S)
present is mixed

1400 R205 Rky soil in birch

good sq

1600 R206 chl phyll cps 3.0

1940 blch w subwp phyll w qtz

Came

Came out 2.0 km from start

LEVEL
22

NEVILLE CROSBY INC. 47 L

Lvg Hairpin just after Minto BY
125m N. to creek no silt
200m L 12 Till 60 cm deep dry
may mixed pebbles
327° on

23

300 dug pit 1m + deep in loess
just topsoil pebbles - Picture
325 uncut tip up 10 cm loess
then weathered gravels

[North] no reset -
100cm top of bank into new

G18 Fine silt. Creek swamped w/ silt
loess? silt front? -
much qtz silt w/ phyllite
going up with much silt slided down face
of slope

190m A large block 2m x 1m phyllite rock

G19 RL upper dundre chg. phyllite

G20 RL silt & qtz and phyllite (S)

G21 RL " " " (S)

780m G22 Ground silt not swamped
w/ silt. Much silt & phyllite in qtz
no intrusive r/c. Unscreened

LEVEL

- 29 SW 0 m
1200 end
- 30 0 m
500 sump water was left
- 550 Terra Firma
- L13 Till sample 10 cm locs
40 cm depth no phylls
some qtz
- G30 1 cm slab psammite
- 850 80cm sand + phylls no
bould till
- 915 G23 RC 10 m x 20 m UC
→ 045 + pale cream phyllite
- 1050 w. lila spots 1 cm qtz
- 1150 UC same low qtz
- 1080 spotty UC ends

NEVILLE CROSSEY INC.

471

Talbot

Talbot 4

25

SW from camp at 1 1/2 km from
SE 1 1/2 to edge Snake oc S phylls.

130/30 NE

F1 qtz lens 1/2 m wide

F2 fine silt main till

Till is weakly cemented phylls.

dk red grey

much qtz + siliceous

F3 up slope 5 cm

Rock chip relic phyllite X cutting
qtz incl 9 over XLS ⑤

E) Frozen till under muck 30 cm deep

Downhill North 0 m

380 E2 1 cm cps phyllite same relic
no round pebbles SOIL660 E3 1 cm + rnd pebbles some,
very round most is 1 cm phyllite
cps w. much fine little sandNo loess in my holes
black muck + fine930 E4 1 cm + sub 1 cm cps phyllite
in clay with till. 25 cm top
10 cm arg

LEVEL

26

1210 E5 Under top up Sort micaeB

2 cm phyllite lmn qtz

1470 E6 Till same peat & organic fine
very md to 8 cm pebbles
w qtz, feldsp.

2000 sand stripy near bank

[North] no chain.

50m E7 Till Bear in bedt nose?

FA Silt big hand last scoop.

West of Camp

west 300) Juston F5 Screened silt

OC to w. Much qtz flt in ck

F6 RC pale green silex phyllite w.
small qtz unts + fr py.

Fair amount thin type of lf.

F7 RC flt qtz vnl Silice metam.

vlns sd

OC to west is platy fissile green phyllite
soft w v min qtz to a
few cm wide. No silex.

F9 Screened silt silt + 1 cm
+ md pebbles & 1 cm on till Bear N

NEVILLE CROSBY INC.

47L

27

Crooked Camp

cross creek head up creek in NE side

200m 2 cm slab phyllite-gneiss

open-ckl camp = no silex w sphi

250 open bank much gneiss + qtz ribular

much qtz w open sandy & friable wgs +

limeil. Limestone base common.

820m Sdg fib' no silt no chain
thick 200m up creek.

Continued to nose of hill + found subcrop

(justled ac) flatish lyg psmnite @ 840
solitare w v few qtz unts X cutting

A + level at. beach that occurs in
area here to 1/2 way to truck

Giving up math camp ck No silt.

1100m 1cm blds schist - phyllite dark
in alk. Subord blds bio hab qtz dor
w microfissile cavity lined sfer w qtz X

1210 Subcrop dark phyllite-schist

No water in ck. On NE bank

1300 NI Till under 30 cm loess

top of bank much red pebbles some cl.
Dry. Fairly fine but possibly columnar

1580 on open bank much felsic sand wet
N2 RL 1cm blds subcl qtz w lime dol
& sericit. almost brown.

LEVEL
18

N3 Qtz. boulders (5)

N9 Qtz. face intense whitening (5) phyllite cor.

1590 N3 Till - Colluvium some sand

Much felsic schist w/ qtz. streaks

+ qtz. Rnd + sub clm bldrs -
pebbles1600 Creek below dry w/ much
qtz. bldrs sub-clm 5-6?

[SE]

1800± cut string + bed SW 50-100m worn
comes back + then SE again

1900 N5 Good compact dark grey till under

silty 30 cm Top 5cm clingers

Rough and pebbles Some ground

Most clm to sub-clm dark phyllite

2170 N6 Till grad under tip up:

ferruginous red pebbles

2500 N7 Till fine grit compact high fine
pebbles + 2cm all small. On flats
Pines - willows

2800 N8 20 cm less-cut

compact clm till some sub-round qtz

pebbles. grey phyllite 2cm

3100 N9 10 cm less than till very 2cm
some rd qtz. Till sample

NEVILLE CHOSBY INC. 47 L

29

3400 N10 Good Till under tip up

21cm sub-clm some sub-red

mod SE slope

3600 N11 Dry fill and sub-red + sub-clm
Aspen with steep hillside

[SW]

300m qtz. bldrs sub-red sub-clm

600m wavy banding qtz. from previous

870m and dry mouse trail 11 = ero

1000m N12 Till dry sub-red sub-clm - clm

dry

[NW]

300m N13 dry grn grey till (mixed w/ loci?)
mod slope

470 2 large milk white qtz. bldrs

510 mouse trail 1

560 1 large m w qtz. bldr

600 N14 Till Some (loci?) clm schist

+ qtz. 1 large w qtz. bldr

N15 ec large qtz. bldrs w ser - ch

900 N16 Rely 3rd Schist rubble

1200 N17 n n Some rank

5cm clm schist lies over gritty soil

910 qtz. bldr

LEVEL
30

- 1400 Qtz Mn " "
 1500 N 18 Clay soil till same
 sub rounded qtz pebbles
 1600 N 19 Clay till same sand
 most clay top 5-10 cm
 gritty silt below Sampled
 2100 N 20 till - Colluvium - Outwash?
 Same sand sub mdt + rnd + sub clst
 pebbles

NEVILLE CROSBY INC. 47 L

31

Lug Crump
NW

- 15 min east in flat brush.
 Estuar river 355°
 + 10m large 1m thick bedded qtz cherts
 w large 3cm fspn planes (whit?)
 sitting on flat benchland c.g.
 + 15 min larger, w white qtz bds
 ~ 1 km to south
- N 21 Silt goes where creek leaves hillside
 much qtz, qtz sea shelt some w
 1m X cutting lines, dark phyllite
 minor carbonate w qtz

(Uphill) NW 0"

- 350m end deep humus in birch-willow
 forest.

N to 0 15° ± 0"

- 50m N 22 grey till clay caps
 qtz + grey phyllite. Some subrnd qtz
 bds subclay q + sea greenish
 350 break in slope onto flatish plateau
 490 N 23 Thin till over clay gush
 phyllite w qtz. Dry simple
 740 N 24 Soil like qtz sea shelt
 low iron trace + dots
 on small rise on plateau

LEVEL		
32		
890	N 25	Orange soil Q sand schist w. much fine limestone Different soil - could grow to 6-7 cm mesh + airy coarse 100% clay loam
940	N 26	Till excellent. Only 2 mm 2 cm grn. Most rock to submod. Grey bn clay rich
1210	N 27	Till good gray grey bn Under 50 cm loess which is under 5 cm 1 cm atg + schist (schist) Till is very compact
(275°)	0"	
260		Clay w/ bds. Schist-schist
570	N 28	Till? Colluvium? Some sand 1 cm to submod. pebbles Under 20 cm loess which is under 5-10 cm pebbles band otherwise?
760	N 29	Till under 40 cm loess under tip at end E-W "hill"

NEVILLE CROSBY INC. 411

200°	0"	
50m	gully w water	
300m	20 cm loess over sandy gravel outwash grey. NS	
570-600	1/2 cm bds. felsic psammite lens fine limestone	
600-	loess under 20-30 cm 1/2 cm bds. felsic psammite lens fine limestone	
710	- 5 cm felsic psammite lens fine limestone	
760	N 30. Clay Soil 1 cm to subclay on flats. Dry orange bn	
1030	N 31. Clay Soil-till 1 cm subclay chd schist psammite lens fine limestone 20 cm loess on top	
1300	Subcrys chd fspn schist flatish 1 cm	
1360	deep loess N.S. 1 cm bds chd schist	
SE	0"	
100-300	wetting / in bds felsic psammite felsic. No fine limestone	
300	bds over in deep loess NS	
400-550	poured over several small bunches	
650	acid in wet mossy deep loam willowy valley	

33

LEVEL
34

1050 hit solid ground + ridge line

1100 N 32° 77' below 70 cm base

clay rubble on surface.

fill road to clay caps

Soil - top

1200 edge of hill

1400 2 holes deep loose NS.

1530 base slope

2000 standing down into prop

NEVILLE CROSBY INC. 47 L

11-20 1-20 July 18/99
PARKERS BACK NE 35

1040 striy line

Cross line from AD 2 9+10

1900' graphitic schist with lim

dip into NW NE / 15° SE

2050 Big gun OC graph schist

No 1 of # 13, 14 + 250 Dunes soil line

/ No 1 of 15, 16 + 300' low OC schist
wavy schist.

900 Soil till line + Dunes

No 1 of 17, 18 + 100' OC to left

H. m bedded phyll.

530' striy line Dunes

From No 2 15+20

(SW) 0 ft.

3030 bridge to N1 at 1+2
too far apart bridge

38

+300m Z5 Screened silt, bright dry soil
bit of brush (100') above main cl.
climbed above this with cl.
much sea shint. Also thin
scr grass + scrub
Some garnet

+100m 1/2 m b/lbs of 3 sea-fspn sea-shit grass
fresh to py some garnet
all before orange weather
Garnet hb'd grass

+200m Z6 Sap 2cm before nose of
hill + big lk other side
N steep slope (100') above cl
on rise b/o QF grass

+300m Z7 Dry silt 50% sometimes
micaceous & g QF grass no motives
often buried grass Big trib' creek
No water
Min of 3 + py

+150m hb'd grass rubble

+160m garnet hb'd grass + py

39

+200+ Z8 organic sspn on steep hill
across from trib' on N side main cl
+300? Z9 Screened silt. Main wide open
trib' from S. Main valley 200'
wide below line for 500'+
Sample sandy. Much at 3 sea
shint

+600m Z10 unscreened silt. Orange cps
+gtz cps Fine silt. Many trib'
+50m fdl'gld white clm

+500m Z11 unscreened fine silt some
org. All v fine yellow orange sand
+50m 1/2 m l/b pink gd grass water w

+100m Z12 Main creek all fine silt
w some org. lying in coarse sandy silt
No rx. (lk much smaller
Found marked tree N side main cl
Junction 3rd post isable
YUKON PROB Post NO 2
CLAW NO P. 40035
Other post No tag
opp.

There are opposite Z10 upstream 150'

4D

Z13. Marshy area N
unsorted silt. Fine silt + sand
w some org in willow patch
OC along E bank flat by
granite gd.

Z14 Biggest trib from N in willows
Very fine silt + org silt +
mg gd / but not gneissic
Some pebbles. Coarse sand
thrown up from last flood.

@ Cabin. No creek
elt is clear granite schist

300-500 m past cabin

Z15 Orange ssly silt along
cat trail

4I

Z16 Supy silt just before 260°
Hdg walk 50m below
orange sea schist or granite cps
v gt3

Z17 +50m Fine silt similar to
250° Filled w low buck brush

+500m Z18 265° creek / fine silt orange
Sand. Schist or granite
1km bld well fol'd gd back
200m

+500m Z19 wide open creek w 2 bumps
in middle. Fine silt
open meadow

+400m Z20 fine some org silt quartzitic?
and schist v fine cps

much bld from gneiss Z20 to ridge
top drainage dry. Good gd rubble on
ridge (going to NW). Drop over down to
major bld where rubble is buried bld from
gneiss w some mica + gt3 fracture on
some blds

Z21 fine silt mica² silt in a l dso
Strawberry vine? w frayed flwr

PR

+200^m up river hill side main cl.

Z22 fine silt

+300^m + elevation

Z23 Screened silt N fluv. drift

Sandy surface mixed

silt; gneiss & mtr. fels

Some peg.

+200^m bld. hbl. gneiss breccia
bld. fels.

+200^m more bld. hbl. white
+ yellowish white into cutting.
hbl. bld. gneiss. gneiss.

+400^m Z24 Fine silt 200^m from main cl.
Int. fels. cps

+2100m Z25 Good fine silt some sand
much c.g. quartz to peg. few all
small. Much pink peg
on hillside above. (Plains B)
to Sappi bottom end 2000' water

Stevens Cl.

93

200^m up Stevens Cl along recent cut bank
big panel w push up gravel both ends
obvious bedrock boulders? + carb. from old
andes (?) w qtz veins + hairline silica

Z26 RL. ⑤ carbonatic lenses

+100m Z27 similar cl-type bouldered "andes"
micaceous bouldered qtz fspn gneiss with
brownish ch to give overall green appearance
Darker gneiss locally w pink fspn qtz eyes
here less so. overall Fe stain

Z28 Silt fine some org^c, cps of
puish fspn - qtz - mic. quartz +
silt. Fw. Nest cl upstream

Z29 Next major trib to E

Fine silt grnd. Qtz - pink fspn
gneissic cps. Some qtz cps

On way to next creek on west of hill
Hbd. gneissic qd dip gently into hill
10-30'

Int. small peg - No water. Cps of
mic. fspn gneiss + silt + gneiss
Some qtz. all stained orange Z30 Dri
silt

44

+100' Subamp. full wld + bio. gel. grass
+25' OC n n n n

Next up Z 31. Scupy silt ground
w some org. orange green pps
like before

OC in Sprague mouth stream

148/80 NE grn grn dark green
w pinkish areas organ + bands to 2cm
Diroction 26° 135°/25 NB

Z32 - Z36 Variety of clay art.
Kspn wate, silice, qtz and w carb(?)
mtk schwers from OC areas from
Camp cir E Zdenek's + Janis Camp

Z37 RC rippled bedrock in old house cut turned
around from camp. Pumicite + few sds,
qtz + ralte (25)

Z38 Qtz and w high w/tpy cutting pegmatite stns

45

Summit Lake area

@ camp:

Sand w west side ckt off.

950' V1 Good silt trib to mainick.

100% clm organ + some grey wtng

Sericite schist w 1-5% qtz

1200-1500' flat bench

2100' V2 Soil? all clm schist (sericite)

+ qtz some sericite schist w hairline

fract lin + true qtz w lin. One

very narrow bldg grey sericite schist

Some sub clm qtz rare pebbles?

50' from mtschurun

3400' V3 some org. silty sep.

Qtz w hairline fracs fit + schist fr

3700' burn stony uphill down low

trib other sick + 300' +

4200' V4 wet goopy soil some schist

qtz pebbles. Mostly clm schist

mixed w org + soil in burn

4500' 1dg edge small knob Subamp.

wetness v low tree lin

4720' V5 excellent clean sature silt

20' below spring in valley. Schist +

qtz esp.

+ often side were in burn till - much
mixed material Grassy weather

300' SE

4900' U6 slightly sandy fill from
under tip-up. Oxidized top 2cm.

Sample 50 cm deep grey bn. All
rnd, rare sub clm. Clasts varied
incl. gd.

6150 U7 Good fine silt matrix
W bank in burn

U8 East bank excellent silt in burn
both in solid till area

6470 U9 1cm blck silic^d gtz and (?) (3)
pebbly SS dark grey.

7170 U10 Sandy silt on hillside
Excellent fine. And by till silt fraction

7770 U11 Sandy fill unstratified
gtz, intr., other rnd to sub clm
sub 1cm is fig. unmeta sed SS - weaker.

058° off

700 Tip up with unmeta SS same det. pthle cyl.
min silts. Some gtz

1270 Tip up top also unmeta SS

1112 Wet till 50 cm deep little sandy
unstratified. Rnd to sub clm pebbles
some gtz throughout

2200 edge of burn

2570 mostly dry organic to 60 cm
1cm blck rusty cat chat pthle cyl.
hit ice button hole

3330 U13 Till after 2 more attempts.

Orange ox ↓ under 20 cm (was
+ 5-10 cm arg): S1t^{1/4} sandy
much oxidized some 1cm 1 pc
1cm diam. mg.

3920 Tipup w silic^d psammite, qtz,
schist vc (wall) others

4700 U14 Till some sand grey bn
under orange bn ^{ox} till Much
rnd + subclm stones cobble

(U15 rk chip carrying since 2570
rusty chat pthle cyl. blck (3))

5030 Creeklet no silt
then willow patches

6020' U16 Good s1t^{1/4} sandy fill 60cm
by first pine tree

7200 edge bank w view of ct
flat pine behind

7600' U17 grey bn fill on steepish
bank

8500' mid blt flat pine bench w
50cm loess - silt

A8

9170' V18 till under 20 cm silt
+ mixed silt-till 60 cm depth
sub clm & chl? + pseumus

OC Chl. fspn schist just w at meadow
@ top end "cragm"

1) On way down creek from 9170' passed
over good till

1/2 way to 919' clm w/ dark phyllite
w/ bedrock from silva

919' Excellent jlt. seric schist + much
ctg. mt. Same till bds

900
375 - 525

A9

0^m edge Sedge

E 0^m

85 m ± top of N end 100 m N
230 m edge gravel at base "ank" ~~at~~
5 m up area of Regime

285 m up @ N end fan

330 m up branch

350 @ back of branch

375 No 1 Run RUn 1+2 Sept 9/99

@ 0^m of yester above 9:30 am

W 0^m

170 m ± upper toe of beach

525 m No 1 Run RUn 3+4 Sept 10/99

W 0^m

450 No 2 3+4 etc. ✓ found

875 Soil line between 177 + 178

900 Posts

985 damp Serpy silt No incised gull

1070 top of gully into clm

1150 creek 100% clm Kspn at 3

Regolith w/ minimal fine grds

+ 1% dark grey clots w/ Sph?

1200 clm bds reg. Kspn grds + bds

NEVILLE CROSBY INC. 47L

50
1295m Y 87 + Y 88 5m left (W)
1350 No 1 Run RWN 9+10

1400 weak clean branch

1690 strong lwi soil lwi Y simple
15m ahead to W Y 93

"branch" soft & sandy base

2010 Ck 1800 parts

2140 top of bank into ck

2250 parts

E 0m

130 onto top of branch

200 onto real branch

(3:30pm)

360 big trib ck W on ck

415 top steep bank into Simple
trib ck 15m N

430 base slope onto packed gravel
gvt below current mine cut

480 top bank into drain

C No 2 Run RWN 1+2 - No 1 13+14

W 0m

200 fan side of camp @ edge sandy

370 OC hbd gd - granite? fels
w peg aplite vein

581+80

Sept 14

51

11 12

19 20

2 9 10

17 18

Sept 14

7 8

15 16

Sept 10

5 6

13 14

Sept 10

3 4

1 2

Sept 9

Sept 9

Sept 9

Lv damp up rd along N. side Camp Creek.
+ long bish bed ground w local peg some areas
with peg. First 200m = finer grungy alluvium
(dark to red brownish alluvium)

340m true ypd + esp alluvium (dark) of weathered
granite is tilliated + horiz bio

900m same OC blue steep hill w rd.

Leveed here

1250 dry gully

1500 " " more deeply cut - no fines

2220 dry mossy grassy gully No "

7350 peg OC sandy burning rock granite

7400 2 popular streams cut by old

2500 mostly grassy gully

62

- 3100 RL init fork
- 017 Coarse sand granitic and
the silt some org. In colluvium
- 3185 end thin sample
- 3580 018 bigger bank to SB
- (Picnic) Sand + org + silt on top
- 4300 019 coarse granitic sand overwash
by v fine (org¹) silt
- 4730 020 coarse granitic sand overwash
by v fine (org¹) silt
- 4990 Siltwash fresh 15' b. whd gd w cps
- 5870 021 Very clean fine sandy silt
peg + granitic phbbles/lites
- 6310 022 clean till Some moss mat
peg, granitic - qd + silty
subwash b. gd - granite
- 023 Seepy silt 51^m S of
No Post Run Run + 2

53

@ N end air strip LL

west) 0"

450 m v 62

600 clayish till NS min

840 peg. o.c. 30 cm Xerolith
silts & mineral grains

X1 dry silt below o.c.

(Contour N) v fine
pink ribbony No grass

50m X 2 red in soil rky.

100m X 3 v fine silt

150m X 2 vchil dry v rky game org silt

200 X 5 v fine dry pale br gray silt

A horizon

250 X 6 in soil clon rky

300 X 7 damp red in rky silt

350 X 8 very rky silt

355 peg b. cks

408 X 9 Rky silt

455 X 10 wet Rky soil close to ridge

504 X 11 B. rky soil Some km decorated

507 7 large peg b. bks 1m

550 X 12 wet mica rich in soil

600 - large peg no soil

625 + 650 - large " "

675 talus w. wet humus peg cps

725 " + spring dry w. humus peg cps

NEVILLE CROSBY INC.

- SA
- 790 X13 Sandy silt running
Bn arg^c sandy sump. No soil
talus under mass
- 860 talus under mass
- 890 (X14) Silt main cl. 100%
Lspn w/ 3 peg crowd first
all orange - wetly bn
- 940 X15 dry sandy gritty soil
@ base slope
- 990 X16 dry very gritty soil
skip S fairly slope
- 1020 peg bloom 40 cm
- 1040 X17 dry bottom 1/2 play top 1/2
red bn fine grit
- 1090 X18 rky soil beneath red
w/ gritty B? horizon
- 1140 X19 dry yellow rky soil under
red B? w/ no grit
- 1150 X20 reddish B? soil y mtn grit
- 1240 X21 yellow bn rky soil
LVNCH No "B" in hole
- 1290 X22 Rky^(dry) red bn soil
- 1350 X23 Rky^(dry) soil
- 1400 X24 Rky gritty soil
- 1405 Peg bloom
- 55
- 1450 X25 Red soil gritty r/y on bottom 1/3
- 1500 X26 Gritty rd bn B. soil
- 1530 subsp peg + flow
- 1550 X27 gritty soil nose of hill ±
- 1570-80 peg blobs
- 1600 X28 gritty orange soil
- 1650 X29 gritty pink soil
- 1700 X30 very gritty soil
- 1750 X31 " "
- 1800 peg blobs no soil
- 1845 X32 brown very gritty soil
- 1910 peg blobs no soil
- @ X31 Darnell W 400 m string line
430 m claim line
claim pos 1 15" N

56

Malheur

Leave ATV (10:15 am)

020° ± 5°

1350 hit myn 5' fluv. trib
dead water in canyon LL bank
dunform loam to fluv. clk
with trib' coming out of bank

X33) silt below trib v fri

w 5mp sand + some org^c

ft is all granitic w some reg

3380 X34) Silt fri same org
minor persistent granitic sandNo pebbles. Banks of dc show
silt (1 m?) About 300 m

up this trib (16)

Banks of hillsides on way here
were granitic. (e.g. g'd - 10
q's mmz w hds b.s.)

Native brush. Common to

see granitic sand on hillsides

5470 X35) Main creek silt

Fine silt very little coarse sand

minor org^c

57

5930 w bank ac foli^d white granite

gaining out by west 1m peg toke

6200 (X36) Fri silt w flow trib.

6870 (X37) " " main clk above

west trib from W 230

Canton + climb to W 0 m

6990 ac white granite 4 peg 0 m

400 m road no water in washlet

Silt 0 m (canton + climb)

330 ac white granite

1000 ac n " area

ridge [S] no 0 m

7920 ac granite on SW rim of
ridge looking down at other side of

1900 ck no water [can] no 0 m

2270 ac white granite L Bank

3050 no water [S]

5:45 pm road + ATV in rain

58

© Mo 1 Run Run 17 + 18

35 m creek

(X 38) excellent fine silt up to 200 m

nothing coarser than sand

[N]

✓ minn organisms

250 bl/ds peg

260 bl/ds c.g. pink fspas qtz many - jd

300 subcpn fsl qtz many c.g.

395 cl fsl[±] bl/ds peg qtz mng.
10 - 15% C.I.

450 peats

675 (X 39) excellent silt some sand ^{minn} some ag'
prob to 70 fist size peg + aplite
some c.g. qtz mng.
specimens of aplite

922 many peg bl/ds to subcpn

950 N + 2 15 + 20

[E] sidehill

+ 300 m ± c.g. qtz mng.

(X 40) Excellent silt - coarse granitic
sand + silt
subcpn by cl c.g. qtz mng.
15% C.I.(X 41) other trib @ low in valley
coarse silt

59

just below frika

match peg; same minn aplite

fair c.g. qtz mng till all before

(X 42) Silt N flwg trib 4-2 way bath

Scraggie much peg qtz

Mang cl 70% c.g. qtz mng

30% peg

X 43, 44, 45 Rx taken from
colour zone along ridge road

Wahalla - Scraggie camp just

N 1/2 km ± from outcrop peak

other similar colour zone along
ridg out sampled 1/2 to north of
outcrop

- 60 Head up rd, behind camp
 @ 900 m - pt few days ago where
 Sibley Lava rd.
 Soft 0 m
 485 m X 46 Soil along rd pale gray
 beneath with 6m B horizons
 cps in rd alt. intrusive Same peg
 550 X 47 with 1m soil alt. intrusive cps 100%
 sand bds in rd bed at break
 intrusive.
 all RIC has grayish tan gray colors & 25
 fspers w/ much tan iron
 600 X 48 Soil clay almost black
 ironstic + dirty ferruginous
 650 X 49 Soil very silvery limonitic
 intrusive
 675 Fresh intrusion (lava flows) rubble
 subsoil?
 725 Split C hor. rubble with iron
 mixed vs red alt. + brown
 820 Start all brown rubble + gas
 100-1100 or bigger well with iron & w
 split not much peg here or before
 1230 Fresh intr. CC
 1310 Fresh CC a small pocket at top
 of steep hill and end climb

- 1480 string hard
 1975 clearing by dozer w/ splitable
 very little peg rubble along rd
 2300 clearing to N by dozer
 intr. as we back slopes
 base of 340° ridge
 or intr. point 350 m
 2850 → 310 most ferruginous
 2100 Aluvial qtz with (3) 2850
 2230 X 50 Soil
 3110 start intr. rubble with peg
 + ferruginous to my left
 on ridge top
 3250 much peg rubble some inter.
 3300 near with top silcrete mg
 caliche like beds some peg + inter.
 3990 Lookout N end intr. & push
 to right + been run on so
 intr w peg
 4200 corner all weather mixed with
 hem just enter to bottom of hill
 (4330) thin peg bds + mix intr
 peg = silcrete
 4350

62

4900 X 51 Soil on 1m² area & surface 1m
all metric → 1m

4950 X 52 Soil sand calcareous rock
5000 X 53 " " peg matte
5050 less salt "

X 54 El. from cut below camp
yellow OC patch

Sampling JEZEK claims.

At. NO. 1 Post JEZER 27/28

headed NE for approx 100 m

- D 110 v.f.gr. silt from med. creek flowing
W.

float mostly rounded

- 30% dk. green black pyroxenite?

- 40% brown-green phyllite

- 25% dh grey hornfels w small

gr. trachres - minor sulfides < 1%

- little to no gr. Abiot.

headed N

- approx 200 m

D 111 v.f.gr. slightly muddy + organic
silt from sm. creek flowing W.

No float in creek

- continued NW next to 0

- 300 m Small organic creek - no float

- 500 m started up hill.

At main creek where JEZER 27/28 claim line crosses

D 112 f.g. silt - float ~ 50% phyllite

50% rounded - minor gr.
from 30 m downstream from claim line.

LEVEL
2

At claim line just upstream from D 112

[135°]

- 200m D 113 brown grey "oogluic" soil
from under tip up (partial permafrost)
- Sample depth 45 cm below organics
soil has consistency of corn starch - water past
- Only float is 2 small sub-angular chips of qtz

[180°] reset to 0m.

305m D 114 yellow brown silty soil/fill

w. lots of rounded weathered float - minor
angular phyllite. Depth 45 cm570m hit E-W cross line to JEZEK 4B/4A ^{10.21}630m test hole no sample 15 cm grey silt over
black mud

670m " " straight 60 cm thick

780 - 1000m boggy area - several tests methods
permafrost at surface

(Note: nearly flat to slight up slope from)

450 - 750m then slope steepens slightly
but still boggy (b. Spruce)

970m small creek flowing NW (slow flow)

good silt. D 115 sieved silt to #25 mesh

approx 1/2 bag of sieved silt.

40% crs. float qtz.

60% phyllite

MEVILLE CROSBY INC.

3

- 1050m D 116 grey clayey semi-fines

+ 11 m. 10-15% sub-rounded qtz 50%
mixed rounded float, 30-35% phyllite (ang?)- 1100m D 117 brown soil with coarse angular
phyllite fragments ~ 5% sub-round qtz
- some phyllite fragments silicified.
(from small NW-SE trending hill w. thin
caribou moss cover).- 1185 D 118 similar to 117 only more clayey
with less rock fragments some rounded
could be partly H?- 1310m D 119 grey clayey hill - minor
angular fragments - most float very small
not much float - thin caribou moss cover1590m D 120 grey clayey hill - lots
of rounded float - some qtz
approx 5% of float is angular phyllite1920m D 121 same as D 120 only lots
float - 1g. subangular float near surface
of dk grey green weakly siliceous phyllite

2200m D 122 same as D 121

2260m break in slope - steepens to S (15-20°)

2500m D 123 grey brown clayey fill

- depth 60 cm still slightly oxidized

- 20% ang. phyllite float - most surface - rounded

LEVEL

A

- 3200 m hit main road approx 200 m E of JEZEK 17/18
claim line

ROCK SAMPLES

- D 124 outcrop of massive gtz at rusty fractures w/ muscovite along fractures
- gtz o.c. in contact w/ grey-brown phyllite located on top of small hill 250 m N of JEZEK 21/22 No. 1 Post.
- continued N for 25 m - on slope facing main creek
- D 125 - outcrop of strongly silicified phyllite w/ limonite fractures and massive gtz spots throughout. Original rock texture overprinted by pervasive silicification
- = D 126 - 400 m S of JEZEK 43/44 No. 1 Post subcrop of silicified psammite w/ limonite fractures (start of numerous small o.c./subcrops) of psammite over several hundred metres)

NEVILLE CROSBY INC. 471

400 m S of No. 1 43/44 subcrop w/ limonite 1250

5

Sampling JEZEK Claim Block

- On claim line 250 m N of JEZEK 21/22 No. 1 Post
 - On top of small hill with o.c./subcrops of massive gtz and silicified phyllite
- D 127 yellow brown silty soil [090]
- 20 m D 128 angular float/subcrop of strongly silicified phyllite. Pervasive Silic + 1 cm gtz veinlet
 - minor specs of pale green olt⁺ mineral
- 28 m D 129 red-yellow brown silty soil - angular phyllite rock near surface
- 62 m D 130 grey-yellow slightly clayey soil
 - small long chips of phyllite
- 110 m D 131 Same as 130 - surface layer of soil contains angular chips of gtz + phyllite
 - 10 cm is fine silty loess (sampled upper layer)
- Brock at D 127 [270]
 - 8 m lg. subcrop/o.c. massive gtz approx 10 m with centered 5 m S. (D 124)
 - 22-30 m 5 m high bluff of silicified phyllite w/ massive gtz occurring in places 104/45 N
 - 30 m D 132 red-yellow silty soil from against o.c.

LEVEL

5m N of D 132

- D 133 - o.c. strongly silicified

phyllite w/ qtz veinlets up to 1cm wide
and open ruggy fissile fractures lined with
qtz. also numerous thin limonitic fractures

35 m 100+ m thick organic cover post o.c.

Back at D 127 - headed S along claim line

[180°]

- 35m D 134 grey clayey till with
small sub rounded qtz float & larger
sub-rounded phyllite flts.

Back at D 127

[360°]

- 20-30m o.c. drifts of silicified
phyllite with qtz. fractures + veinlets
+ limonite fractures (D 125)

30m - D 135 red yellow silty soil from against o.c.

35-100+ m thick organic cover (bt. sparse)

NEVILLE CROSBY INC. 47L

At No. 1 Post JEZEK 28/30

[180°]

- 17m D 136 sub-angular float of
massive qtz in graphitic schist w/
strong limonitic alter.

D 137 grey clayey till - sub-ang.
phyllite to rounded pebble size flts.

50m ~~tilt~~ reset to 0° started contouring
to WSW

- 250m D 138 grey clayey partly
frozen till - mostly small rounded
float (some qtz) minor angular phyllite

- 490m D 139 grey-brown clayey mixed
till / soil → all fragments sub-angular
phyllite.

- 750m D 140 same as D 139
- some sub-rounded qtz flts.

- 1010m D 141 grey clayey HII

- no much float ~ 1/2 rounded & sub-angular

- 1270m D 142 same as D 139 + 140

- 1535m at JEZEK 9/10 NO 1 post near
creek

10m N. of post D 143 grey HII - rounded angular flts.
some massive qtz + sub-angular phyllite

7

8

- D 144 sieved silt from Field creek
approx 15m upstream from
JEEZY 9/10 claim line.

At No. 1 Post JEEZY 9/10.

[180]

- 285m thick loess ~ no sample.

- 300m [138] ←

- 450m Thick loess 90+ cm.

[180°] reset to 0m

45m - D 145 silty till - 40 cm to greyish yellow layer - abnd. rounded qtz. rphyll. flt. some angular qtz.

- 350m thick loess 90+ cm.

- 372m D 146 same as D 145 only not as much qtz. ph.

- 670m D 147 same as D 146

- 1000m D 148 grey clayey reasonably good till w. rounded - angular flt.

- 1300m D 149 yellow-grey silty till/cm abnd. angular phyllite frags.

less rounded flt.

- 2175 m. main road

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MINTO CREEK AREA

- on Minto Lake Rd 750m E of W. edge of map. (1/250,000)

- [190]

- 350m crossed Minto Cr.

[180°] - reset to 0

- 700m large tributary flowing N

B1 sieved silt - float in creek

80% psammite phyllite to more chloritic schist - some siliceous

5-10% massive gneiss boulders

up to 30cm diam.

5-10% green porphyritic andesitic

10m upstream blue/orange flag with

22349 - this years flagging

- reset to 0m [180°]

0-25m following creek

- 100m test hole - outwash.

- 180m " " "

- 360m test hole - loess to 60cm

then frozen - some pebbles starting to show at bottom

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- 510m on 20m wide linear hill (290°) - sandy outwash to 70 cm depth
- 530m (beside river) outwash
- 590m outwash
- 625m black spruce ~ 20' m into permafrost
- frozen silt/clay - no pebbles
- 850m T1 sandy hill from 1m depth under trip-up rounded blocks from pebble to 30 cm diam.
- minor angular phyllite.
- 1120-1350 m talus of rhyolite xtal.
fir w. 1-2 mm phonolite + biotite.
- very fresh → little alteration → O.C. bluffs of same approx 70 m to E+S.
- 1200m B3 yellow silty soil from within talus
- 1260m B3 "
- 1320m B4 "
- 1350m end of open talus (true mossy cover)
1385m B5 yellow silty soil - angular rhyo flt.

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- 1440m B6 yellow silty soil
B7 angular flt. rusty altered rhyo.
~ 2-3% v. f. gr. diss. sulfides →
biotite + feldspar minerals bleached w. some leaching.
- 1505 B8 yellow silty soil same fl.
as B6
- 1565 B9 yellow silty soil
- subcrop of weathered rhyo
- 1630m B10 reddish yellow soil
- mixed flt. - ang. rhyo + siliceous phyllite. w. some rounded flt.
appearing (coarsest till mix?)
- 1710m B11 same as B10
- 1775m B12 reddish yellow soil
mostly angular rhyo w. some phyllite
- 1850m B13 brown slightly clayey soil - mainly angular rhyo flt.
- 1925m B14 brown silty soil
angular rhyo flt - steeper slope.
- 1990m B15 same as B14
- some rounded flt.

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B-16

2065 brown grey slightly sandy
soil w/ ang rhyo - minor areas
of mixed rounded Plt.

2145 B-17 same as B 16

2210 m B 18 grey brown silty
soil from against sub-crop rhyo.

2290 B 19 grey brown silty soil
- abund angular rhyo fragments

2365 m B 20 same as B 19 some sub-round Plt

2440 m B 21 " "

2515 m B 22 grey brown soil - angular
rhyo. Plt.

2590 m B 23 " " "

2620 m slope flattens into valley

2700 dry creek

2830 m B 24 f.gr. sandy silt - no large
float but sand particles look like
rhyol. dominants.

25

3092 at creek - dry
N-S

headed upstream

3200 pools of water in creek

3250 med-crs gr. sandy silt B 25
>50% blocky rhyo. float in creek

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CANYON CREEK AREA

ON N side of Wareham Dam

- From NW edge of gravel pt.
headed approx. NW

- 1600 m at edge of valley going N
into Canyon Creek. (produces bend in creek)
Outcrop of 60+ cm. wide gte. vein w/
rusty fractures B 26 edge areas of
vein indicate phyllite/schist w. schist
vein

and chlorite f.t.c. B 27.

B 28 - fine silty soil from against o.c.
- Started down steep slope to canyon creek

- 20 m from B 26-28

- outcrop of pale limonitic schist
w. gte. veins parallel to foliation from

2 cm. to 30 cm wide - limonitic fracture
in gte. veins and host rock (vein + foliation
parallel to surface) (fissile)

B 29 red yellow soil from just below o.c.

- 45 m outcrop of foliated pale grey schist
(more gneissic in appearance) No gte. veining

- 160 m at Canyon Creek. approx.

150 m downstream from center of
S. valley. B 30 silty silt.

Large organolitic float of schist/rhyol.
10-15% massive gte.

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- headed N out of creek (reset to 0m)
- 90 m B 31 brown silty soil
- long bleached phyll. Pl.
 - started contouring to W. (reset to 0m)
 - 45 m O.c. rusty silicified phyllite
w. qtz. veins along foliation up to
 - (B-32) 20 cm wide - Qtz veins rusty w.
minor amts fgrn grey sulfides and
visible galena in hand specimen
 - B-33 whitish soil from below O.c.
Foliation attitude approx 050/15-20° NW
 - 55 m 5 m wide o.c. rusty phyllite no qtz veins
endcut (slightly down slope from B32 o.c.)
 - < 100 m B 34 whitish brown soil - abundant
angular phyll. fragments
 - 125-150 m several angular boulders of
rusty massive qtz. w. 1-2% grey sulfides.
 - 150 m B 35 reddish brown soil
 - NOTE: near apex of linear N-S. ridge.
 - 200 m B 36 whitish red soil
angular silic. phyll. Pl.
 - 212 m B 37 90cm x 60 m angular
boulder of rusty qtz. w. v. f. diss. grey sulfides.

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- 240 m qtz boulder like B 37.
- 250 m B 38 whitish brown soil
- 265 m B 39 rusty qtz. boulders
f.gr. sulfids ~1%
- 300 m B 40 whitish brown soil
- 320 m slope flattens out.
- 350 m B 41 whitish brown soil
- abund. angular phyll. Pl. minor rounded Pl.
- 400 m B 42 " " "
- 450 m B 43 red-brown silty soil
- 465 m sub-crop 10 m up slope of
weakly hematitic lt. brown phyllite.
- 505 m B 44 brown slightly sandy
soil - mix of rounded + angular Pl.
- 635 m Talus subcrop of rusty silic.
phyll. w. qtz veins up to 40 cm wide
w. rusted out vuggy areas and fractures
- minor fgrn dts grey sulfide B 45
- B 46 whitish brown soil.
- NOTE: Talus subcrop extends for approx 50 m
up slope. - approx foliat. attitude 040/75W
- 1070 m Creek valley on N. side - dry.

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Started dropping down to Canyon Creek
1160m outcrop of chloritic phyllite

little to no qtz. or ms.

-1200m B 47 - sandey silt Canyon (v.)

float mainly angular light brown phyllite
<5% massive qtz. ph.

[170°] reset to 0m

- 60-70m o.c. phyllite.

775m T2 - slightly sandy tln
w. lots of ang. phyllite float.

[100°]

300m sub-crop phyllite

450m " "

590m T3 tln w/ lg ang. ph.
ch phyllite at surface

990m T4 hill - some ang phyllite

1290m T5 tln from lower
slope of still quarry.

[130°]

1700m T6 grey clay tln (slightly sandy) ^{all} rounded

2100m at edge of quarry on outcrops

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CANYON to MINTO CR.

17

) At outcrop bluffs just ESE (50m) of

B 29 - grey green chloritic schist

- not much qtz. or silic."

foliation attitude -037/10-SE

At B 32 [315°]

) 70m B 48 sub-crop bleached, rusty silic'd
phyll. w/ limonite fractures

B 48. 10 cm wide qtz vein // to fol' with vuggy
limonite zones X-fracturing w/ rust + ble. sulfides
along fractures

- 420m T 7 grey brown clayey tln
90% fl rounded mixed - 10% sub-round
rusty siliceous phyll.

) - 790m T 8 same as T 7.

- 1320m T 9 good tln from below 40cm
loess
- hill flattens out.

) reset to 0m [060°]

- 200m T 10 same as T 9 some
rounded - sub-round rusty qtz ch.

) ~400m T 11 same as T 10 - more rounded
qtz floor

18

- 600m T 12 same as T 11 - some
sub-angular rusty phyllite fl.
- 800m T 13 good tfl - almost all rounded fl.
- 875m on top of slight hill
- 970m subcrop of bleached, limonitized
weakly silicified phyllite w. ~10%
v.fgr. chrs. orthofl.
- 1005m T 14 good bfl - some angular
phyllite float.
- reset to 0m [315°]
- 200m swampy area
 - 370m angular rusty gte float on surface
+ also angular phyll.
 - 400m T 15 tfl / soil mix
- mostly angular phyll. fl.
 - on surface 30cm ang. boulder of
(B49) rusty gte. w. fgr. chrs. orthofl.
 - 780m T 16 partly frozen brown
tfl / soil mix - rounded + ang. fl.
 - 875m at creek valley shown on map
 - 1100m T 17 brown grey very sandy fl.
(could be mixed loess) depth 110cm then frozen

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- Note. First 20cm capped by angular
float of rusty stained rhyolite then 90cm
of sandy material with decreasing size
and amount of angular to sub ang.
and amount of rhyolite. fl.
- 1150m rhyolite subcrop - appears slightly
bleached
 - 1225m - small muddy creek - no silt.
 - 1420 T 18 whitish orange soil-like
material - appears to be rhyolite
strongly weathered in place
 - top 20cm loess below to a depth of
120+ cm weathered rhyo. - angular pieces
of intensely weathered rhyo appear
throughout hole
 - reset to 0m headed N for 500m
then angled to NW to hit creek.
 - 600-700m outcrop subcrop on steep
slope of rhyolite.
 - 1125m B 50 fgr. sandy silt from
creek - float almost all rhyolite
- some small phyllite chips in silt.
 - Blocky talus slope of rhyolite on W.
Side 25-150m upstream.
 - 2300m - hit Maro Creek

20

CANYON to MINDO CREEK

- At Wareham Dam [360°]
- Outcrops of phyllite - weakly bleached + rusty fol @ 020/10 N.
- Esker due NE-SW - some feature continues for over 1km to SW
- = 400m starting down steep slope into Canyon Cr. - sub-crop bleached phyllite
- large cliff of weakly rusty outcrop on opposite side of creek at approx 340°
- 550m at Canyon Cr.
- B. 51 fr. sandy soil:
 - almost all float is phyllite. most unweathered some weakly bleached.
 - minor gneiss float mostly small sub-rounded pieces
- [360-360°] next to 0m
 - 150-200m angular rusty gneiss boulders start to appear on surface.
 - 160-200m outcrops of weakly bleached phyllite - no gneiss in outcrop.

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-) 250m slope flattens out
-) 400m T 19 grey brown sandy till
 - all float - rounded + mixed - depth 100cm
 - could be outwash by ~~gneiss~~
-) 825m T 20 grey brown sandy outwash till
 - from 130m depth - some angular phyllite
 - rotating gneiss towards bottom of hole.
-) 1200m T 21 grey brown clayey till
 - + mainly rounded mixed float - depth 70cm
 - [030] next to 0m
 - 170-200m - sub-crop of light brown phyllite intrusive with 2-3mm phenocrysts of weathered K-spar.
-) 380m T 22 grey clayey till - some angular phyllite, felsite.
-) 760m T 23 brown-grey sandy outwash till
-) 1200m swampy area - flat black spruce forest
-) 1230m permafrost
-) 1540m T 24 brown grey till (basal)
-) 1630m sub-crop unweathered phyllite
-) 1900m T 25 brown grey slightly sandy till

12-2060 small creek

-2310 T 26 brown sandy overwash/till

-2665 T 27 brown grey sandy till
ang. phyll. fltr.

-3030 T 28 brown grey sandy -till

-3360 at Minto Creek

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TALBOT LAKE AREA

On 3091 creek N. fork approx

50 m upstream from Y junction

C-1 f.g. sandy silt

50% float consists of angular grey to
green phyll./schists with streak work
lge qtz veining minor
gr. veining

40% clear more rounded intermixed

to mafic vx (tuffs?) also with

slwk. qtz veining thru area 1/2 of fl.

10% larger sub-round qtz boulders 50 cm
diam with weak rust

headed E for 40 m to E fork of
creek C-2 f.g. silt. smaller creek
but has similar float

At 3500' elev. approx 300 m E of the
head of E. fork of "3091" creek.

[025] - On A-1 excellent basal till from
45 cm depth - subangular qtz flt. 1-5°.

24

- 385m A-2 grey clayey till
lots of angular phyllitic f.m.
some rusty subangular gts.
- 275-650m series of NW-SE benches
- 595m A-3 grey clay till from under
till - sp. of.
- 880m A-4 grey clay Till 50 cm depth
- sub-round phyll & rusty gts. f.m.
- 1180m A-5 good basal clay till
- some ang. phyll f.m.
- 1465m A-6 " " " "
- 1810m A-7 " " " "
- 2100m A-8 partly frozen grey clay
f.m. - not much float - depth 20 cm
- 2375m A-9 mixed outwash till
- frozen @ 40 cm

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TALBOT LAKE AREA

- On 3091 creek W. fork
approx. 500m upstream from C-1
- C-3 sieved silt
50% float angular sub-round grey phyll-sch.
w/ interbt^o & fracture gts. veins up to 1cm
1% f.gr. diss. py.
- * C-4 - 30% sub-angular float. - dk grey f.gr.
diorite? w/ cross-cut gts. veins
- * C-5 - 10-15% sub-ang. to sub-round gts. boulders
up to 30 cm diam. some weakly sorted.
(Note could possibly be bouldered gts.f.m.)
- * C-6 - minor amounts, sub-rounded rusty (Rox) gts.
-) Heated upstream.
 - 430m C-7 sub-round float of rusty
massive gts. with cts. calcite veins up to
3 cm wide intergrown w/ gts. 2-3% co gr
fracture pyrite.
 - 475m C-8 f.gr. sandy silt (not sieved)
float similar to C-3 locⁿ only more
angular phyll & less rounded diorite?
- water stops flowing past this point.

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- 500 - 650m outcrops on both sides of creek - foliated light grey green phyllite/schist - nearly flat lying to dipping shallowly NW.
- 735m C-9 1m wide boulder rounded f. to sub-round f. to med gr. light brown
Qtz dror? with \times Qtz. veining
(some along conjugate fractures X)
- 800 - Qtz veining getting stronger in float.
- 820 - 860m sub-crop - outcrops of phyllite.
875m C-10 Agr. sandy silt.
large blocks of float of angular
hornfelsed phyllite Some grey + light
banded gneiss with extensional gashus
filled with Qtz (approx 80% to 60%)
rounded to sub round boulders of Qtz with
1-3% f = med gr. pyrite among fractures and
(C-11) possible very fine grey sulfides < 1%
- 900-1050m outcrops on W. side of
phyllite/schist (approx 045/15° NW)
appears w~~th~~ hornfelsed in areas and often
has more blocky gneissic texture.

27

- 1360m C-12 Agr. sandy silt
weak grading smaller - still similar
float only much less phyllite and
>50% round - sub-round light brown
weakly foliated agr. granidi?
- 1090' road to 0m
- 925m C-14 Agr. sandy silt from
small creek flowing N. good flow in
creek - good silt. \rightarrow float mostly phyllite
and 3% Qtz.
- sub-crop S m upstream of pale green
phyllite.
- 1050m at small creek flowing N
- orange organic coating in creek
- no silt - (note: similar to C-14 but in
deeper valley - appears to be location
marked on map)
- headed downstream
- 155m C-13 Agr. sandy silt.
mainly phyll - + Qtz. fl. - orange
coating almost gone
- 190m at junction of creeks - W. creek 10x larger

28

- Float in main creek similar to
 C 3-12 creek - f.gr. dior (gtnore?) with
 * gr. weathering + angular phyll. w. gr.
 and massive gr. fl. up to 30 cm
 ≈ 630 m C-15 f.gr. sandy silt
 - 1225 m at C-1
 - 1300 m at creek junction

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CROOKED AREA

- W1 - S fork in headwaters of main
 creek flowing NE into Crooked Creek
 f-med gr. sandy silt - small creek but flowing.
 - floor mainly phyllite, granite, minor gr.

W2 - tributary ^{1 km} NE of W1

- Not flowing but pools of water
 - good silt + f-med gr. - float sub-angular
 rusty gr. v. leached out subridges (W4)
^{4 pieces of float}
 - rounded floor of granite - granodiorite.

W3 - Camp creek approx 500m NE of

- W2 med-gr. gr. sandy silt from pool
 (not flowing)
 - sub-round phyllite, sub-angular granite
 and > 10% gr. float weakly cemented.

30

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(Rowne) AREA

At W3 (near camp)

[0800] approx 800m dry muddy w/ no water
- no creek

1050m [050] near to 0m

- 575m W5 - rock chip from large angular
float of silic & schist - very rusty
areas (<3%) - 2 cm wide gte veins
cutting across schistosity - minor rusty inclusion

- 720m W6 - rock chip from 40⁺ cm
wide angular flt. of massive gte
w/ leached out rusty areas - some

visible partly rusted py. cubes 2-3 mm.

- 745m - 20m down slope

W7 sub-crop of silicified schist

- strongly bleached in contact w/ rusty
massive gte - leached out sulfides in
both schist + gte

W8 brown rusty soil near sub-crop

- Note approx 50 m wide area of gte rich schist
Sub-crop - some places graphitic schist with py. cubes weathered off.

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- 32 - 770m - started down slope
- 800m sub-crop - less altered Schist
- 860m W 9 brown silty soil
- angular, graphitic and It/dk schist
reset to 0m
- 140°**
- 97m W 10 brown silty soil against
40 cm wide angular float W 11 - Strongly
rusted silicified breccia - rusty matrix (10^{10})
around angular silic³ fragments (30%) -
- 200m W 12 red brown silty soil
= several ang. silic³ rusty fragments
- 300m W 13 brown silty soil
(slope float) - angular Mt. It/brown slst w. weak rust
(slope 300m) - some siliceous slst. - minor rounded bds.
- 400m W 14 brown silty soil
- rusty angular schist flt.
- 500m W 15 mixed soil / HN ~ 50% angular
schist 50% rounded flt - clay in soil
- 605m W 16 mixed soil / HN → clay rich
soil ~ 70% ang. schist 30% rounded flt.
- 705m W 17 same as W 16
- 10 cm ang. flt of rusty silic³
schist + gtz

- 23
- 800m W 18 same as W 17
- 20m upstream to SW is an
outcrop of rusty bleached + sericitized
Schist → foliation 020/15 W
- 820-850m following along N.C. bank
- = 905m W 20 red brown silty soil w.
ang. rusty flt.
- 920m started dropping into creek
- 1000m W 21 brown slightly clayey soil
ang. float W 22 strongly rusted
silicified breccia
- 1010m 3m diameter sub-rounded erratic
of crs. gr. biotite-gtz granite.
- 1100m W 23 red-brown silty soil
minor angular rusty schist flt.
- 1125m W 24 lg angular boulders
under tip-up (sub-crop) of strongly
rusted bleached, silic³ gtz sericitized schist w.
strong fracturing - fractures upto 1 mm wide
rusted out.
- 1150m at creek (dry)
- 1200m second small dry tributary

34

1220m W 25 red-brown silty soil

- some rounded float.

- back at main creek - headed downstream

- 200-220m rubble sub-crop + outcrop of
rusty qtz-sericite schist w. weak
limonitic fractures.

- 250-500m numerous sub-crops - outcrops
on NW side of creek - Qtz sericite schist
with some qtz veining & siltc. in places
and minor limonitic fractures.

- 100m S. of soil line

W 26 f-med gr. slightly muddy
silt from small pool of water
ang float of weakly weathered
and silic. qtz-ser. schist.

Continuing sample line.

- 1315m W 27 grey clayey till

= 1450-1650m sub-crops qtz-sericite schist
- minor qtz. + rust.

35

- 1020m W 28 brown silty soil

Ram ~~area~~^{near} sub-crop of

gr. ser. sch. → ang. float rusty qtz.
+ strongly weathered schist.

- 1738 W 29 brown silty soil

ang qtz-ser. sch.

- 1890m W 30 brown silty soil
near sub-crop of rusted, silic. schist.

- some massive qtz

- 2000m W 31 grey - slightly clayey soil

ang. float of graphitic schist.

- 2105m W 32 grey brown silty soil
- ang flt. chloritic/graphitic schist

- 2125m center of small gully

- 2200m W 33 same as W 32 (HS)

- 2310m W 34 " "

- 2415m W 35 " " "

- 2505m W 36 " " "

36

37

CROOKED AREA

) At camp on W3 creek.

[080°]

- 850m dry creek.

) - 1100m reset to 0m

[135°]

) - 0m W37 grey-brown slightly sandy

boulders 17% - all float rounded & mixed
(soil depth)

) - 1 piece 15cm sub-angular float of
dark/light banded schist with minor
after rainning and weak rust

headed up 10° slope.

) - 250m W38 grey brown topsoil 11% (50cm
depth)

) - 5% rounded float rusty gta.

) - 455m W39 - 1m wide sub-angular
float of silicified, rusty schist?

) 2% v. large disc sulfides most leached out

) 1-2m X cutting gta veinlets

) - 510m W40 grey brown clayey till - not much
float but most rounded gta (80cm depth)

) - 600m slope starts to flatten out

) - 750m W41 grey slightly sandy till
5-10% rounded rusty gta. All (till/overwash mix) depth 60cm

36

float mixed - granular, gneissic
schist. Minor amount of
sub-angular, rusty, chert pebble breccia with
silica fractures cutting matrix + pebbles. (HS)

- 1000 m W 42 - grey clayey basal hill
- mixed rounded flt. - 5% rusty gneiss

- 1250 m W 43 same as W 42

- 1500 m W 44 - grey from rusty flt.
below 80 cm loess. Most float is
sub-round gneiss some rusty

- 1755 m W 45 similar to W 44 only
more clay & float + thinner loess

[215°] reset to 0 m

[315°] reset to 0 m
- 0 m W 46 grey clay flt. → excellent basal hill
- sub-angular rusty schist + gneiss flt.
along or other rounded mixed flt.

- 200-250 m some angular flt. on surface of
rusty gneiss - sub. schist + some graphitic schist?

- 255 m W 47 grey slightly sandy flt.
sub. ang. - gneiss schist + rusty gneiss + rounded mixed
float

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39

- 500 - W 48 same as W 47

- 750 m W 49 soil w some hill material
- lots of angular chips of graphitic schist

- 1005 m W 50 soil w mixed hill

+ angular rusty gneiss schist

- minor amounts angular graphitic schist

+ minor gneiss

- 1260 m W 51 grey basal flt. - upper
surface layer has angular gneiss schist

- sub. ang. gneiss + rusty schist within hill

- 1280-1480 - following ridge down steeper slope

- 1520 m W 52 grey clay - good basal hill
- minor amounts gneiss - sub. schist w rusty

gneiss
- 1620 m hill 060° SW line from
yesterday

- 1720 m clean sandy outwash (no sand)
- minor amounts sub. org to ang. gneiss sub. sd.

+ gneiss

) NOTE: possible helicopter landing site
approx 200 m further along line

[225°] reset to 0 m

- 315 m hill NW SE line 35 m SE of W 37

AD

41

Scrogay Creek Area

) At creek junction on the West side
of the S. end of airstrip

-) headed approx SW. up ridge.
0-15m outcrop at edge of trib. creek
- biotite schist
710-720 m angular float (subcrop) of
biotite schist w. 20 cm wide piece of
angular massive gneiss
735m Y1 yellowish fairly sandy soil
with lots of muscovite in soil.

- Started contouring to S. → reset to 0m

-) - 55m Y2 same as Y1 } sample depths
- 98m Y3 " " " approx 30-40cm
- 95m top up w. angular piece of
pegmatite (5-10cm)
- 150m = Y4 same as Y1-3 only 5cm
clayey layer at surface
- 205m Y5 " " "
- 250m Y6 " " "
- 300m thicker organics Y7 = 6th mvd
for 30 cm min 15cm soil 10cm
mid 10cm soil
- 350m Y8 - brown soil with lots of
sericitic (muscovite) - 80cm depth
50 cm clay rich layer above soil
(non-organic)

X2

- 400m Y 9 reddish brown soil - sericite rich
455m Y 10 soil a bit weathered looking
(depth 30 cm) - small angular fragments of
white gneiss - schist fragments becoming
rusher and more gneiss-rich.
500m Y 11 same as Y 10 - 40cm thick
fragment looks strongly streaked
and silvery with moderate rust
~ 10% v.f. vs. disse sulfides
550m Y 12 weakly reddish yellow soil
600m Y 13 back to brown sericite rich soil
650m Y 14 " " "
710m Y 15 " " "
750m no sample - frozen mud
- white alder under growth
805m Y 16 grey brown wet peaty
clayey soil - angular sericite schist frag.
850m Y 17 brown clayey soil w. seric.
905m Y 18 " " "
950m permafrost → no sample
990m Y 19 dark brown partly organic
soil from 40 cm. depth - ang. schist frags
1044m Y 20 brown soil - pH org. " " "
1105m Y 21 brown soil w. angular
amphibolite fragments
1155m Y 22 " " "
1205m Y 23 light brown soil - some
sericite schist? fragments
1250m Y 24 brown soil - lots of biotite
^{chlorite} / mica in soil → angular biotite/chlorite
- on ridge between Stevens Creek

S side of

A3

= headed down ridge for 300m
Y 25 fine sandy soil brown small
creek flowing SE into Stevens Cr.
float mainly sericite schist w.
some amphibolite schist and
minor amounts of gneiss & erg. gr.
pink granite.

Started contouring up to N.

- angled up slope for ~ 50m

Y 26 reddish brown soil w. ang. chlorite schist
- 90m west of ridge

- 100m Y 27 same as Y 26

- 155m Y 28 reddish brown soil w.
some ang. chlorite schist and some
gneiss-schist fragments.

- 215m Y 29 brown silty soil - angular
chlorite schist fragments

- 275m Y 30 "

280m sub-crop of chloritic argen
gneiss w. 5-10 mm. thick argen
of K-sp-gneiss-ser.

- 325m Y 31 same as Y 30 only float

more gneiss-schist
- 395m Y 32 olive brown: slightly moddy
soil w. angular fragments.

- 450m Y 33 brown soil w. angular fragments
- sub-crop gritty schist

- 510m Y 34 brown soil ang. fragments

- 560m Y 35 brown-grey soil
- ang. sericite schist fragments

44

- 610m Y 36 grey-brown soil w.
sericitic schist fragments
- 670m Y 37 " " "
- 720m Y 38 " " "
- 780m Y 39 lt. brown soil w. angular
sericitic schist fragments
- 845m Y 40 " " " "
- 900m Y 41 " " " "
- 950m Y 42 reddish brown soil w.
ang. sericitic schist fragments (focally
starting to look a bit rusty).
- 995m Y 43 same as Y 42
- 1050m Y 44 lt. brown soil w. grt & ser. fragments
(some rusty)
- 1100m Y 45 " " " "
- 1150m Y 46 " " " "
- 1200m Y 47 " " " "
- 1250m. Y 48 " " " "
- 1300m. Y 49 lt. brown soil - sericitic soil
- 1355m Y 50 " " " "
- 1405m. Y 51 whitish brown silty soil
- 1465m. hit cross line 25m
E. of Y 1.

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SCROGGY AREA - CLARKE CR. 45

-) Y 52 - ~~top~~ f.g. gr sandy silt from
med creek flowing E into Scroggy Cr.
(1st pop S. of Clarke Cr.)
- looks like mainly granite sand
(approx 2000' elev)
- continuing NW (323°) to Clarke Cr.
-) Y 53 f.g. sandy silt from S. fork
of Clarke Cr. approx 100m. upstream
from junction.
large granite boulders (with pinkish white veins)
- continued NW
-) Y 54 f.g. sandy silt from sm. creek 263m.
S. into N. fork of Clarke Cr. (looks like same
soil)
- started contouring on N. side of Clarke Cr.
-) Y 55 f.g. sandy silt from N. fork of
Clarke creek approx 50m upstream from Y 54
- floor - granite
-) Y 56 main tributary W of Y 54
Sieved silt, small creek with slight slope

A4

Y 57 next trib west of Y 56

- very slight flow - fine sandy silt
- some organic material - float 20% gr.
- coarse granite, 20+% schist

main Creek

Y 58 fine sand silt 100m upstream from
Y 57.

- bluish mica mineral on sand bar surfaces

Contouring around to S fork of Clarke C.

First trib on W side of S. Fork upstream
NO SILT

- Y 59 2nd trib on W. side
Same as Y 58 + 57

- Y 60 main S. fork 150m upstream
from Y 59 creek
f. gr. sandy silt - floor mainly
granite.

Scroggy AREA

A7

- On creek bank on W. side of
Scroggy Creek W. of N. end of airstrip.

270°

0-900m bench

400m started contouring to N - reset to 0

0m - Y 61 lt brown silty soil - angular granite
chips some look pegmatitic + le-garn rich

50m - Y 62 " " " "

105m - Y 63 darker brown soil - angular
chips chlorite schist

- large angular float of pink-brown - red gr.
granite w. approx 30% green chlorite and?
amphibole, hornblende - rock is wavy on weathered surface

150m - Y 64 dark brown soil

200m - Y 65 lt brown soil - white granite and
crs. calcite chips

250m - Y 66 lt brown slightly gravelly soil w. lots
of granite flt.

300m Y 67 lt brown silty soil - garnet flt.

350m Y 68 dk brown silty soil - angular
pegmatitic granite - also metamorphic
garnet? w. limonite spots

A8

405m Y 69 lt brown soil - ers calcite

chips.

450m Y 70 brown silty soil

500m Y 71 brown silty soil - small chips

of quartz textured gte rock rock

some w. strong limonite weathering

550m Y 72 brown silty soil

- granite chips

600m Y 73 " " "

650m Y 74 " " "

700m Y 75 " " "

750m Y 76 brown slightly sandy soil
chips gte monzonitic → gte diorite (low to good)
content)

800m - thicker organics Y 77 brown pthy frozen
soil w. granite chips (below 10cm bl. mud)

850m Y 78 brown soil - granite float
- some pegmatitic → some limonite.

900m thicker organics - no samples

950m Y 79 brown pthy organic soil
- small chips granite.

1020m Y 80 " " " "

1110m at small creek

Y 81 sieved silt

Y 82 → float almost all coarse Calcite QTE pegmatite

- rusty w. some gte in veinlets

- ~2% blocky submetalllic mineral disseminated throughout
and along small fissures

A9

1190m Y 83 brown silty soil

- 45cm wide ang pit of rusty pegmatite.

- 1250m Y 84 brown silty soil

- 1300m Y 85 brown biotite rich soil

- 1350m Y 86 reddish brown soil

- gte + pink carbonate chips.

- 1395m Y 87 sub-crop of rusty gte pink
carbonate pegmatite.

- 1397 Y 88 reddish brown soil

- 1450m Y 89 brown soil

- 1500m thick organics - no soil

- 1535m Y 90 grey brown clayey soil

- ang 4cm wide gte chip

- 1600m Y 91 brown soil - granite ang. chip

- 1700m Y 92 " " "

- 1820m Y 93 reddish brown biotite rich soil

- 1650-2125 talus, no soil

- 2125m at med crevle flowing E.

Y 94 f-mod gr. sandy silt

- float all granite pegmatite

TAILINGS ACROSS SCOGGY FROM CAMP

Y 95 - rock chip angular flt. silicid.

granite pegmatite w. v.f.gr. pyrite along
fractures and fgr. pyrite dres.

50

Y96 - same area as Y95

- ① Mica-sand
- ② Sand to Silt
- ③ Silt to Clay
- ④ Silt
- ⑤ Clay
- ⑥ Organic

AREA S of SUMMIT LAKE 51

At forks of creek near Camp

- ~~roads~~ headed S. up E. side of W. Fork

250m - S 25 fgr. Sand to clay silt (3)

Float 1/2 dk brown weathered quartzite schist

1/2 darker more indurated schist

- minor grt. float < 5%.

275m 40cm wide rounded float of massive grt. w pink coarse carbonate

matrix throughout some fgr. doss Py < 1%

- 475m more grt. float in crev. some w coarse pale yellow carbonate mineral (angular)

- Also 5-10% flt. is dk brown schist with interfoliation carbonate

- Small bits of Pt dk grey, silicified slightly rusty sediment? (thin bedded?) Silic. appears on weathered surface → sub-angular

- Minor rounded float of chert pebbles concreted w dk grey matrix, lt grey chert pebbles thin fractures w sulfides (py) cut both (also 50m up stream)

- 500-520m subcrop on creek bank grey phyllitic

- 525m S 24 angular float of silicified sericite schist w 5-10% leached float

pyrite (1 mm cubes)

- 575m S 23 fgr sand to clay silt (3)

- Similar float to downstream

52

- 1100m S 22 - small seepy creek flowing NW into main creek
 - f.gr. sand to clay silt w some organics (3⁶)
- 1400m S 21 - f.gr. sand to silt s.t (2)
 - from med. trib. flowing W.
- 1600m S 20 - f.gr. sand to clay silt + w some organics (3⁶)
 - from seepy creek
 - flowing W.
- 1750m S 19 90cm wide sub-rounded float
 - in E.N of chert pebble conglomerate
 - weakly weathered - matrix contains 5+% f.gr. chalc. blebs submetamorphic mineral w conchoidal fracture.
 - Some as small float found downstream
- 1875m S 18 f.gr. sand to s. + silt (2)
 - from small trib. flowing NW
 - float mainly it between sericitic phyllite/rain
 - ~10% gtz. chips in float
 - Some of the schist appears silicified on weathered surface.
- 1975 S 17 f.gr. sand to clay silt (3) from main creek

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53

- Started contouring NE towards E fork of creek.
- S 16 - 100m SW of S 21 creek
 - small ~~seepy~~ creek flowing NW.
 - f.gr. sand-clay silt - some organics (3⁶)
- S 15 - 1st tributary flowing N into E. Fork of RGS creek
 - f.gr. sand to clay silt (3)
 - float fairly rusty gtz. (annularic rust)
 - minor amounts of schist.
- continuing NE
 - 300-400m = sub crop of dk gray green phyllite
 - minor annularis looking rust in places
 - 500m S 14 f.gr. sand to clay silt (3) from small creek flowing N (upper basin of main creek)
 - float similar to sub-crops
 - continuing up S side of E. fork (resist n. O)
 - ~450m small swampy creek flowing NW over most to silt
 - 700m on top of ridge
 - 1100m at main creek - same fly = no silt
- continuing E
 - 1300m at swampy tributary no silt
- heading NW
 - approx 500m S 13 f.gr. sand to clay phyll. org silt from tributary flowing W. (3⁹)

54

S-12 f-med gr sand to soft silt (2) from
E Fork 100m upstream from S-14

S-11 f.gr. sand to silt silt (2) from main creek

approx 300m upstream from junction

- float mainly psammite schist.
- 150m up from junction

S-10 small spring - good flow on S side of
main creek

f.gr. sand to clay silt (2)

- lt brown schist + gtz chips in silt.